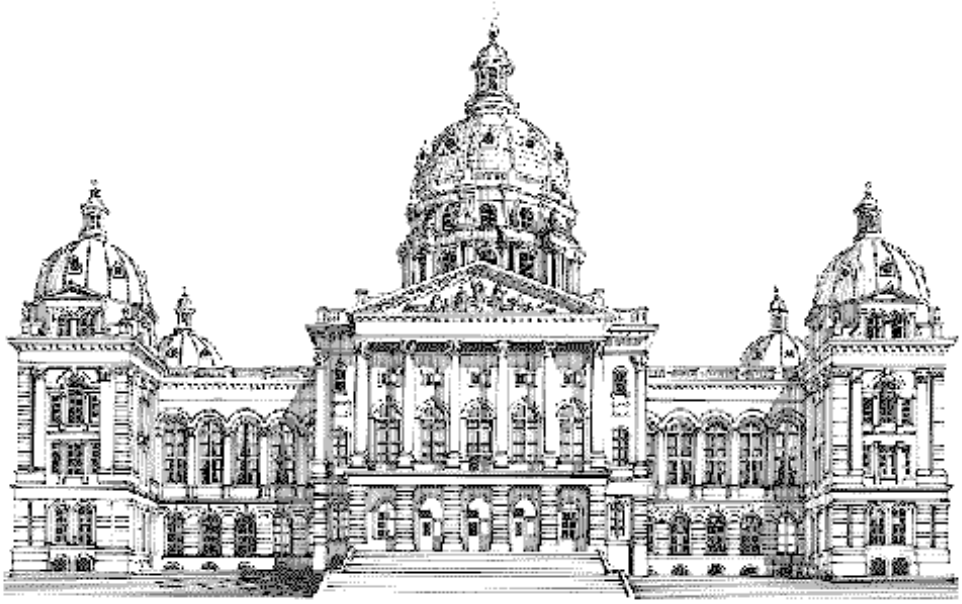
INFRASTRUCTURE STATUS REPORTS



COMPILED BY

FISCAL SERVICES DIVISION

LEGISLATIVE SERVICES AGENCY

FEBRUARY 2008

IOWA GENERAL ASSEMBLY
LEGISLATIVE SERVICES AGENCY
DENNIS C. PROUTY, DIRECTOR
IOWA STATE CAPITOL
DES MOINES, IA 50319
515.281.3566
Fax: 515.281.8027
dennis.prouty@legis.state.ia.us

DIVISIONS

LEGAL SERVICES
RICHARD L. JOHNSON

•

FISCAL SERVICES
HOLLY M. LYONS

•

COMPUTER SERVICES
GLEN P. DICKINSON

•

ADMINISTRATIVE SERVICES
TIMOTHY C. FALLER

FISCAL SERVICES

Marcia A. Tannian
Legislative Analyst
515.281.7942
Fax: 515.281.6625
marcia.tannian@legis.state.ia.us

IOWA GENERAL ASSEMBLY WEB SITE
www.legis.state.ia.us

Memorandum

To: Chairpersons McCoy and Cohoon and Members of the Joint Transportation, Infrastructure, and Capitals Appropriations Subcommittee

From: Marcia Tannian, Legislative Analyst

Date: February 8, 2008

Re: Infrastructure Status Reports

The reports included in this document were submitted by various state agencies to the Legislative Services Agency in accordance with the following provisions: Sections 8.57(6)(h), 8.57A(5), 8.57B(5), 8.57C(4), and 12E.12(9), Code of Iowa and Chapter 1179, Section 19, 2006 Iowa Acts.

These provisions require the agencies to submit reports annually regarding appropriations received from the infrastructure funds, including the Rebuild Iowa Infrastructure Fund, Environment First Fund*, Vertical Infrastructure Fund, Technology Reinvestment Fund, and both tobacco funds.

House File 911 (FY 2008 Infrastructure Appropriations Act) amended the reporting requirements by changing the due date and requiring agencies to provide the status of all projects, completed or in progress, including:

- a description of the project;
- the progress of work completed;
- the total estimated cost of the project;
- a list of all revenue sources being used to fund the project;
- the amount of funds expended;
- the amount of funds obligated; and
- the date the project was completed or an estimated completion date of the project, where applicable.

Legislative intent required receipt of annual infrastructure reports so the Legislature could have detailed updates on projects. This is

*The Environment First Fund is now under the Agriculture and Natural Resources Appropriations Subcommittee, but reports on these projects receiving appropriations from this fund will continue to be compiled with other infrastructure reports.

particularly important because infrastructure funds are often appropriated into out years. The following agencies submitted reports for appropriations received from infrastructure funds for FY 2007 and/or FY 2008:

Department of Administrative Services
Department of Agriculture and Land Stewardship
Department for the Blind
Department of Corrections
Department of Cultural Affairs
Department of Economic Development
Department of Education
Ethics and Campaign Finance Disclosure
Department of Human Rights
Department of Human Services
Iowa Finance Authority
Iowa Law Enforcement Academy
Iowa Telecommunications and Technology Commission
Department of Natural Resources
Department of Public Defense
Board of Regents
Secretary of State
State Fair Authority
Department of Transportation
Treasurer of State
Department of Veterans Affairs

As of February 7, 2008, the following agencies had not submitted their reports:

Iowa Workforce Development*
Board of Parole
Department of Public Health
Department of Public Safety

The report will be available on the LSA web site at: http://www.legis.state.ia.us/scripts/docmgr/docmgr_comdocs.dll/showtypeFC?idt=true&type=ih&com=40.

If you have any questions or concerns please contact me at 1-7942 or marcia.tannian@legis.state.ia.us.

* Iowa Workforce Development indicated it will submit the report, but it was not in time for this printing. Supplemental information will be provided to the Subcommittee.

TABLE OF CONTENTS

	Page
Department of Administrative Services	1
Department of Agriculture and Land Stewardship	38
Department for the Blind	45
Department of Corrections	47
Department of Cultural Affairs	53
Department of Economic Development	71
Department of Education	77
Ethics and Campaign Finance Disclosure	86
Department of Human Rights	88
Department of Human Services	91
Iowa Finance Authority	101
Iowa Law Enforcement Academy	106
Iowa Telecommunications and Technology Commission	108
Department of Natural Resources	111
Department of Public Defense	116
Board of Regents	126
Secretary of State	457
State Fair Authority	470
Department of Transportation	478
Treasurer of State	490
Department of Veterans Affairs	492
Appendix A – Infrastructure Appropriations Tracking	496

DEPARTMENT OF ADMINISTRATIVE SERVICES

Annual Infrastructure Report—2007

Iowa Department of Administrative Services

January 16, 2008

Mollie K. Anderson, Director ◆ 515-281-5360 ◆ Mollie.Anderson@iowa.gov

Annual Infrastructure Report—2007

Iowa Department of Administrative Services

January 16, 2008

In accordance with the Code of Iowa, Section 8.57, this annual report summarizes the status of all ongoing building related projects for which an appropriation from the Rebuild Iowa Infrastructure Fund, the Vertical Infrastructure Fund or the Tobacco Settlement Trust Fund has been made to the Department of Administrative Services. The report includes projects for which funding reverted in 2007 as well as ongoing projects.

Infrastructure Appropriations for Facilities Statewide

Location: Statewide

Project: Major Maintenance

Description of the Work:

Major maintenance; health, safety, loss of use; and Americans with Disablities Act deficiencies at the Capitol Complex and statewide for twelve agencies and divisions participating in the Vertical Infrastructure Program in collaboration with the Governor's Vertical Infrastructure Advisory Committee, including the Department of Administrative Services; the Department of Commerce, Alcoholic Beverages Division; the Department of Corrections; the Department of Cultural Affairs; the Department of Education, including Iowa Public Television and Iowa Vocational Rehabilitation Services; the Department of Human Services; Iowa Law Enforcement Academy; the Department of Public Safety; Terrace Hill; Iowa Veterans Home and Iowa Workforce Development. The advisory committee meets on a monthly basis to review the progress of the work and to make recommendations on procedures and priorities. Additional information on major maintenance projects is available in the advisory committee's Ninth Annual Report to the Governor, dated December 14, 2007.

Progress of the Work:

Work is on-going and many projects have been completed. Refer to the Vertical Infrastructure Advisory Committee's Ninth Annual Report to the Governor dated December 14, 2007, for additional information.

Estimated Completion Date of the Project: (See Comments Below)

Completion dates for individual projects varies. It is anticipated that final completion of all work will correspond with reversion dates.

Total Estimated Cost of the Project: (See Comments Below)

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013. All funds have been allocated to specific projects based on priorities recommended by the Governor's Vertical Infrastructure Advisory Committee. Additional funding sources include rebates, SIFIC loans and agency operational funds for specific projects.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***		***Amounts***
Iowa Infrastructure Account				
FY 2001	Appropriation	049R	DGS-Health,Fire,Life,Gen.Maint	$10,500,000
FY 2000	Appropriation	049R	DGS-Health,Fire,Life,Gen.Maint	$800,000
FY 2000	Appropriation	049R	DGS-Health,Fire,Life,Gen.Maint	$6,700,000
FY 2002	Appropriation Transfer	049R	DGS-Health,Fire,Life,Gen.Maint	$86,000
			Total Funds Appropriated from Iowa Infrastructure Account:	*$18,086,000*
			Total Pending (Out Year) Appropriations from Iowa Infrastructure Account:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Iowa Infrastructure Account:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Iowa Infrastructure Account:	*$18,086,000*

Infrastructure Appropriations for Facilities Statewide

Location: Statewide

Project: Major Maintenance

Tax-Exempt Bonds Proceeds Rest				
FY 2006	Appropriation	031R	DGS-Major Renovation	$3,000,000
FY 2004	Appropriation	031R	DGS-Major Renovation	$11,500,000
FY 2003	Appropriation	031R	DGS-Major Renovation	$15,750,000
FY 2002	Appropriation	031R	DGS-Major Renovation	$11,500,000
FY 2007	Reversions	031R	DGS-Major Renovation	($5,006)
			Total Funds Appropriated from Tax-Exempt Bonds Proceeds Rest:	*$41,744,994*
			Total Pending (Out Year) Appropriations from Tax-Exempt Bonds Proceeds Rest:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Tax-Exempt Bonds Proceeds Rest:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Tax-Exempt Bonds Proceeds Rest:	*$41,744,994*
Vertical Infrastructure Fund				
FY 2006	Appropriation	022T	VIF - Major Maintenance	$5,623,200
FY 2009	*FY2009 Appropriation*	*022T*	*VIF - Major Maintenance*	*$0*
FY 2009-FY2013	*Five Year Plan Estimate*	*022T*	*VIF - Major Maintenance*	*$40,000,000*
FY 2009	*FY2009 Appropriation*	*022T*	*VIF - Major Maintenance*	*$40,000,000*
FY 2007	Appropriation	022T	VIF - Major Maintenance	$10,000,000
FY 2008	Appropriation	022T	VIF - Major Maintenance	$40,000,000
			Total Funds Appropriated from Vertical Infrastructure Fund:	*$55,623,200*
			Total Pending (Out Year) Appropriations from Vertical Infrastructure Fund:	*$40,000,000*
			Total Five Year Plan Estimate for Additional Funds from Vertical Infrastructure Fund:	*$40,000,000*
			Total Estimated Funding Requirement Through FY2013 from Vertical Infrastructure Fund:	*$135,623,200*
Rebuild Iowa Infrastructure Fund				
FY 2006	Appropriation	0R52	Statewide Major Maintenance	$291,891
FY 2005	Appropriation	0R29	Statewide Major Renovation & Repair	$4,300,000
			Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$4,591,891*
			Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$4,591,891*
			Total Year To Date Appropriations:	***$120,046,085***
			Total Out Year Appropriations:	*$40,000,000*
			Total Five Year Plan Estimate:	*$40,000,000*
			Total Estimated Funding Requirement Through FY2013:	***$200,046,085***

Infrastructure Appropriations for Facilities Statewide

Location: Statewide

Project: Routine Maintenance

Description of the Work:

Routine, recurring and preventive maintenance for state owned facilities at the Capitol Complex and statewide for twelve agencies and divisions participating in the Vertical Infrastructure Program in collaboration with the Governor's Vertical Infrastructure Advisory Committee, including the Department of Administrative Services; the Department of Commerce, Alcoholic Beverages Division; the Department of Corrections; the Department of Cultural Affairs; the Department of Education, including Iowa Public Television and Iowa Vocational Rehabilitation Services; the Department of Human Services; Iowa Law Enforcement Academy; the Department of Public Safety; Terrace Hill; Iowa Veterans Home and Iowa Workforce Development. The advisory committee meets on a monthly basis to review the progress of the work and to make recommendations on procedures and priorities. Routine maintenance funds are distributed to each agency on a square foot basis, typically at the rate of 18 to 21¢ per square foot for some 11.5 million square feet of facilities (43 cents per square foot in 2008). Additional information on routine maintenance is available in the advisory committee's Ninth Annual Report to the Governor, dated December 14, 2007.

Progress of the Work:

Agencies are responsible for expending funds within the guidelines of a Memorandum of Understanding between each agency and the Department of Administrative Services.

Estimated Completion Date of the Project: January 2007

All funds will be transferred to agencies by this date.

Total Estimated Cost of the Project: (See Comments Below)

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013. It is anticipated that all funds will be expended.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***		***Amounts***
Iowa Infrastructure Account				
FY 2002	Appropriation	007C	Statewide Routine Maintenance	$2,000,000
FY 2001	Appropriation	008C	Capitol Complex Routine Maint.	$2,000,000
			Total Funds Appropriated from Iowa Infrastructure Account:	*$4,000,000*
			Total Pending (Out Year) Appropriations from Iowa Infrastructure Account:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Iowa Infrastructure Account:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Iowa Infrastructure Account:	*$4,000,000*
Rebuild Iowa Infrastructure Fund				
FY 2006	Appropriation	0R27	DGS-Routine Maintenance	$2,000,000
FY 2005	Appropriation	0R27	DGS-Routine Maintenance	$2,000,000
FY 2009-FY2013	*Five Year Plan Estimate*	*0R17*	*DGS-Routine Maintenance*	*$20,000,000*
FY 2009-FY2013	*Five Year Plan Estimate*	*0R17*	*DGS-Routine Maintenance*	*$20,000,000*
FY 2009-FY2013	*Five Year Plan Estimate*	*0R17*	*DGS-Routine Maintenance*	*$20,000,000*
FY 2009-FY2013	*Five Year Plan Estimate*	*0R17*	*DGS-Routine Maintenance*	*$20,000,000*
FY 2009-FY2013	*Five Year Plan Estimate*	*0R17*	*DGS-Routine Maintenance*	*$20,000,000*
FY 2008	Appropriation	0R17	DGS-Routine Maintenance	$5,000,000
FY 2007	Appropriation	044T	DGS-Routine Maintenance	$2,536,500
FY 2004	Appropriation	0R17	DGS-Routine Maintenance	$1,664,000
FY 2007	Reversions	044T	DGS-Routine Maintenance	$0
			Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$13,200,500*
			Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$100,000,000*
			Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$113,200,500*

Infrastructure Appropriations for Facilities Statewide

Location: Statewide

Project: Routine Maintenance

Total Year To Date Appropriations:	***$17,200,500***
Total Out Year Appropriations:	*$0*
Total Five Year Plan Estimate:	*$100,000,000*
Total Estimated Funding Requirement Through FY2013:	***$117,200,500***

Infrastructure Appropriations for Administrative Services Facilities

Location: 1000 E. Grand Ave., Des Moines

Project: IWD Renovation and Asbestos Abatement

Description of the Work:

Work includes removal of asbestos throughout the building. Abatement could be completed through phased planning so as to displace one floor in a wing at a time. This is the logical next step to start to take action based on Phase 1, Asbestos Sampling and Study completed in FY02.

Progress of the Work:

$1.8 million (including some major maintenance money) has already been allocated to start the development for feasibility and design services. The work is scheduled to start in late January 2008. DAS has requested $12 million dollars in the FY09 Capitals budget so work can begin once the Feasibility and Design Services is completed in FY08.

Estimated Completion Date of the Project: (See Comments Below)

Completion is dependent upon funding.

Total Estimated Cost of the Project: $13,000,000

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***		***Amounts***
Rebuild Iowa Infrastructure Fund				
FY 2009-FY2013	*Five Year Plan Estimate*	*034T*	*Renovation of 1000 E. Grand for Asbestos Abatement*	*$12,000,000*
FY 2008	Appropriation	034T	Renovation of 1000 E. Grand for Asbestos Abatement	$1,000,000
			Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$1,000,000*
			Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$12,000,000*
			Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$13,000,000*
			Total Year To Date Appropriations:	***$1,000,000***
			Total Out Year Appropriations:	*$0*
			Total Five Year Plan Estimate:	*$12,000,000*
			Total Estimated Funding Requirement Through FY2013:	***$13,000,000***

Infrastructure Appropriations for Administrative Services Facilities

Location: Capitol Complex, Des Moines

Project: Capitol Interior and Exterior Restoration

Description of the Work:

Continuing restoration of Capitol including removal of the final remaining mezzanine, relocation of the cafeteria, restoration of the rotunda and continuing safety and accessibility improvements. Exterior work including restoration of the east steps, restoration of sidewalks and drives, and landscaping improvements including irrigation.

Progress of the Work:

As part of recent contracts, the cafeteria has been relocated, areas of refuge have been established, the upper rotunda has been greatly improved, the east steps have been restored and removal of all non-code compliant mezzanines has been completed. Most water damage repairs was complete in December 2007.

Estimated Completion Date of the Project: (See Comments Below)

Work is on-going. Design work is under way for restoration of the Grand Staircase including improvements to the fire suppression system, lighting, restoration painting and the mural 'Westward.' 2008 construction is expected to take place between May of 2008 and December of 2008. New furniture for the cafeteria will be acquired during this time period. Water damage repairs will be completed by end of 2008. Overall Capitol restoration to be complete in approximately 3 or 4 years.

Total Estimated Cost of the Project: $113,138,550

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013. Between 1983 and 2007 more than $95 million has been appropriated to Capitol restoration projects. Additional details are available upon request.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***		***Amounts***
Endowment for Iowa's Health Restricted Capitals Fund				
FY 2007	Appropriation	041T	Capitol Interior	$6,830,000
			Total Funds Appropriated from Endowment for Iowa's Health Restricted Capitals Fund:	*$6,830,000*
			Total Pending (Out Year) Appropriations from Endowment for Iowa's Health Restricted Capitals Fund:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Endowment for Iowa's Health Restricted Capitals Fund:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Endowment for Iowa's Health Restricted Capitals Fund:	*$6,830,000*
Iowa Infrastructure Account				
FY 2001	Appropriation	055R	Capitol Restoration Interior	$4,324,100
FY 2000	Appropriation	011R	Capitol Renovation-Gov Off/Dom	$250,000
FY 2000	Appropriation	012R	Capitol Renovation-Law Library	$400,000
FY 2000	Appropriation	055R	Capitol Restoration Interior	$4,381,000
FY 2002	Appropriation Transfer	055R	Capitol Restoration Interior	$334,000
FY 2000	Reversions	047R	Capitol Restoration Exterior	$4,002
FY 2000	Reversions	055R	Capitol Restoration Interior	$9,962
			Total Funds Appropriated from Iowa Infrastructure Account:	*$9,703,064*
			Total Pending (Out Year) Appropriations from Iowa Infrastructure Account:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Iowa Infrastructure Account:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Iowa Infrastructure Account:	*$9,703,064*

Infrastructure Appropriations for Administrative Services Facilities

Location: Capitol Complex, Des Moines

Project: Capitol Interior and Exterior Restoration

Tax-Exempt Bonds Proceeds Rest

FY 2005	Appropriation	051R	DGS-Capitol Inter. Rest.	$3,500,000
FY 2006	Appropriation	016R	DGS-Cap.Inter.Rest 03	$4,500,000
FY 2004	Appropriation	016R	DGS-Cap.Inter.Rest 03	$6,239,000
FY 2003	Appropriation	051R	DGS-Capitol Inter. Rest.	$2,700,000
FY 2003	Appropriation	016R	DGS-Cap.Inter.Rest 03	$5,000,000
FY 2002	Appropriation	051R	DGS-Capitol Inter. Rest.	$1,700,000
FY 1995-FY1999	Appropriation	051R	DGS-Capitol Inter. Rest.	$15,067,600
FY 2003	Appropriation Transfer	051R	DGS-Capitol Inter. Rest.	$120,000
FY 2002	Appropriation Transfer	051R	DGS-Capitol Inter. Rest.	$499,940
FY 2007	Reversions	051R	DGS-Capitol Inter. Rest.	$0
			Total Funds Appropriated from Tax-Exempt Bonds Proceeds Rest:	*$39,326,540*
			Total Pending (Out Year) Appropriations from Tax-Exempt Bonds Proceeds Rest:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Tax-Exempt Bonds Proceeds Rest:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Tax-Exempt Bonds Proceeds Rest:	*$39,326,540*

Rebuild Iowa Infrastructure Fund

FY 2009-FY2013	*Five Year Plan Estimate*	*017T*	*Capitol Interior/Exterior*	*$6,200,000*
FY 2008	Appropriation	017T	Capitol Interior/Exterior	$6,300,000
FY 2009-FY2013	*Five Year Plan Estimate*	*017T*	*Capitol Interior/Exterior*	*$5,200,000*
			Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$6,300,000*
			Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$11,400,000*
			Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$17,700,000*
			Total Year To Date Appropriations:	***$62,159,604***
			Total Out Year Appropriations:	*$0*
			Total Five Year Plan Estimate:	*$11,400,000*
			Total Estimated Funding Requirement Through FY2013:	***$73,559,604***

Infrastructure Appropriations for Administrative Services Facilities

Location: Capitol Complex, Des Moines

Project: Records Center Renovation for Dept. of Public Safety Offices

Description of the Work:

Renovation of the Records and Property Center on the Capitol Complex to provide offices for the Department of Public Safety.

Progress of the Work:

Renovation work is complete and the Dept. of Public Safety moved into the building in May 2007.

Estimated Completion Date of the Project: May 2007

Total Estimated Cost of the Project: (See Comments Below)

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013. It is anticipated that all funds will be expended. Some additional funds have been provided by the Department of Public Safety. Relocation and move funds have been provided by a separate appropriation.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***		***Amounts***
Tax-Exempt Bonds Proceeds Rest				
FY 2003	Appropriation	0R95	DGS-Record Center Remod. 03	$1,600,000
FY 2006	Supplementals	079R	Records and Property Ctr Remodeling FY06	$2,200,000
			Total Funds Appropriated from Tax-Exempt Bonds Proceeds Rest:	*$3,800,000*
			Total Pending (Out Year) Appropriations from Tax-Exempt Bonds Proceeds Rest:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Tax-Exempt Bonds Proceeds Rest:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Tax-Exempt Bonds Proceeds Rest:	*$3,800,000*
Rebuild Iowa Infrastructure Fund				
FY 2006	Appropriation	021R	GSE-Records Center Remodel	$4,700,000
FY 2005	Appropriation	021R	GSE-Records Center Remodel	$5,000,000
FY 2004	Appropriation	021R	GSE-Records Center Remodel	$4,750,000
			Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$14,450,000*
			Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$14,450,000*
			Total Year To Date Appropriations:	***$18,250,000***
			Total Out Year Appropriations:	*$0*
			Total Five Year Plan Estimate:	*$0*
			Total Estimated Funding Requirement Through FY2013:	***$18,250,000***

Infrastructure Appropriations for Administrative Services Facilities

Location: Capitol Complex, Des Moines

Project: Records Center Relocation

Description of the Work:

Funding is for move related expenses, temporary lease costs, tenant improvements at leased locations and other relocation expenses related to renovation of the Records and Property Center into an office facility for the Department of Public Safety. This funding enables the Department of Administrative Services to move agencies housed at the site to new locations and to assist with relocation of Public Safety from the Wallace Building and Public Safety leased locations into the renovated building.

Progress of the Work:

Cultural Affairs, Revenue, Iowa Prison Industries and General Services Fleet functions have been moved out of the facility and Public Safety has been relocated into the renovation building.

Estimated Completion Date of the Project: June 2007

Total Estimated Cost of the Project: $2,500,000

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013. Estimated cost includes funds from this appropriation and additional funds from other Relocation and Leasing assistance appropriations to the Department of Administrative Services.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***	***Amounts***
Rebuild Iowa Infrastructure Fund			
FY 2004	Appropriation	0R22 DGS-Records & Property Center Relocation	$729,237
		Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$729,237*
		Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$0*
		Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$0*
		Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$729,237*
		Total Year To Date Appropriations:	***$729,237***
		Total Out Year Appropriations:	*$0*
		Total Five Year Plan Estimate:	*$0*
		Total Estimated Funding Requirement Through FY2013:	***$729,237***

Infrastructure Appropriations for Administrative Services Facilities

Location: Capitol Complex, Des Moines

Project: New State Office Building/Wallace Building Replacement

Description of the Work:

Funding is for construction of a new 350,000 gross square foot office building and for demolition of the Wallace Building. Of this amount, $750,000 is allocated to Mercy Capitol acquistion costs.

Progress of the Work:

Preliminary programming is complete for the Dept. of Natural Resources and Dept. of Agriculture and Land Stewardship.

Estimated Completion Date of the Project: June 2011

Schedule is tentative only, subject to legislative approval to proceed and pending further detailed planning and design work..

Total Estimated Cost of the Project:

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013. It is anticipated that funds appropriated in FY2007, FY2008, FY2009 and FY2010 will not be adequate for a 350,000 gross square foot LEED Silver building. Additional funding needs are anticipated and cost could range from $77 million to $100 million.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***		***Amounts***
Endowment for Iowa's Health Restricted Capitals Fund				
FY 2007	Appropriation	075R	Design Construc New State Office Bldg FY07	$37,585,000
			Total Funds Appropriated from Endowment for Iowa's Health Restricted Capitals Fund:	*$37,585,000*
			Total Pending (Out Year) Appropriations from Endowment for Iowa's Health Restricted Capitals Fund:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Endowment for Iowa's Health Restricted Capitals Fund:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Endowment for Iowa's Health Restricted Capitals Fund:	*$37,585,000*
Rebuild Iowa Infrastructure Fund				
FY 2008	Appropriation	028T	New State Building	$3,600,000
FY 2009	*FY2009 Appropriation*	*028T*	*New State Building*	*$0*
FY2010	*FY2010 Appropriation*	*028T*	*New State Building*	*$12,657,100*
FY 2009	*FY2009 Appropriation*	*028T*	*New State Building*	*$23,300,000*
			Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$3,600,000*
			Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$35,957,100*
			Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$39,557,100*
			Total Year To Date Appropriations:	***$41,185,000***
			Total Out Year Appropriations:	*$35,957,100*
			Total Five Year Plan Estimate:	*$0*
			Total Estimated Funding Requirement Through FY2013:	***$77,142,100***

Infrastructure Appropriations for Administrative Services Facilities

Location: Capitol Complex, Des Moines

Project: Wallace Building Short Term Renovation

Description of the Work:

Replacement of hot water heating valves and pumps, changing of egress doors in high voltage room and storage room for code compliance and other short term improvements recommended by the building evaluation work.

Progress of the Work:

Most of the repair work has been completed. Balancing of hot water heating lines is underway. Additional work is undertaken as identified and as allowed by available funding.

Estimated Completion Date of the Project: (See Comments Below)

Schedule to be determined subject to needs.

Total Estimated Cost of the Project:

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013. It is anticipated that all appropriated funds will be expended.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***	***Amounts***
Rebuild Iowa Infrastructure Fund			
FY 2006	Appropriation	019T Wallace Building	$625,000
		Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$625,000*
		Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$0*
		Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$0*
		Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$625,000*
		Total Year To Date Appropriations:	***$625,000***
		Total Out Year Appropriations:	*$0*
		Total Five Year Plan Estimate:	*$0*
		Total Estimated Funding Requirement Through FY2013:	***$625,000***

Infrastructure Appropriations for Administrative Services Facilities

Location: Capitol Complex, Des Moines

Project: West Capitol Terrace/Removal of Parking Lots 7 & 8

Description of the Work:

Funding has been provided for planning and design, including removal of temporary parking lots 7 and 8 west of the Capitol Building and replacement with an ADA compliant walkway between East 7th and Finkbine, including landscaping to create a major public greenspace at the west entrance to the Capitol Complex. Funding is for Phase 1 only, which includes removal of the parking lots and creation of a plaza comparable in width to the East Locust Street right-of-way.

Progress of the Work:

The parking lots were removed in the summer of 2006 and Phase 1 work was completed in 2007. Phase 2 planning is underway and construction beings in the spring of 2008.

Estimated Completion Date of the Project: August 2009

Phase 2 work will be completed in 2008. Completion of Phase 3 is dependent upon funding.

Total Estimated Cost of the Project: $5,950,000

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013. Funding request includes $1 million for a fountain feature, which may be a public/private project.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***		***Amounts***
Tax-Exempt Bonds Proceeds Rest				
FY 2003	Appropriation	0R94	DGS-Parking Lots 03	$93,000
FY 2006	Supplementals	080R	West Capitol Terrace Restoration FY06	$2,300,000
FY 2007	Appropriation Transfer	080R	West Capitol Terrace Restoration FY06	$473,000
			Total Funds Appropriated from Tax-Exempt Bonds Proceeds Rest:	*$2,866,000*
			Total Pending (Out Year) Appropriations from Tax-Exempt Bonds Proceeds Rest:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Tax-Exempt Bonds Proceeds Rest:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Tax-Exempt Bonds Proceeds Rest:	*$2,866,000*
Rebuild Iowa Infrastructure Fund				
FY 2009-FY2013	*Five Year Plan Estimate*	*014T*	*West Capitol Terrace Restoration/Removal Parking Lot 8*	*$1,000,000*
FY 2009-FY2013	*Five Year Plan Estimate*	*014T*	*West Capitol Terrace Restoration/Removal Parking Lot 8*	*$1,050,000*
FY 2008	Appropriation	014T	West Capitol Terrace Restoration/Removal Parking Lot 8	$1,600,000
			Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$1,600,000*
			Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$2,050,000*
			Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$3,650,000*
			Total Year To Date Appropriations:	***$4,466,000***
			Total Out Year Appropriations:	*$0*
			Total Five Year Plan Estimate:	*$2,050,000*
			Total Estimated Funding Requirement Through FY2013:	***$6,516,000***

Infrastructure Appropriations for Administrative Services Facilities

Location: Capitol Complex, Des Moines

Project: Repairs to Parking Lots and Sidewalks

Description of the Work:

Repairs to various parking lots on the Capitol Complex.

Progress of the Work:

Work has been completed on lots 1, 2, 3, 6, 14 and 19. An additional feasibility study is being completed currently on lots 4, 5, 11, 15, 16, 20 and 22 along with all capitol complex sidewalks and ADA accessible routes. Based on the engineer's recommendation we will continue with design work on additional parking lots and sidewalks. Construction will commence on these additional lots in the summer of 2008 and will be ongoing.

Estimated Completion Date of the Project: December 2008

Total Estimated Cost of the Project: (See Comments Below)

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013. It is anticipated that all appropriated funds will be expended.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***		***Amounts***
Tax-Exempt Bonds Proceeds Rest				
FY 2006	Supplementals	081R	Parking Lot Repairs on Capitol Complex FY06	$1,545,000
			Total Funds Appropriated from Tax-Exempt Bonds Proceeds Rest:	*$1,545,000*
			Total Pending (Out Year) Appropriations from Tax-Exempt Bonds Proceeds Rest:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Tax-Exempt Bonds Proceeds Rest:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Tax-Exempt Bonds Proceeds Rest:	*$1,545,000*
Rebuild Iowa Infrastructure Fund				
FY 2008	Appropriation	012T	Repairs to Parking Lots and Sidewalks	$1,650,000
			Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$1,650,000*
			Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$1,650,000*
			Total Year To Date Appropriations:	***$3,195,000***
			Total Out Year Appropriations:	*$0*
			Total Five Year Plan Estimate:	*$0*
			Total Estimated Funding Requirement Through FY2013:	***$3,195,000***

Infrastructure Appropriations for Administrative Services Facilities

Location: Capitol Complex, Des Moines

Project: Electrical Distribution System Upgrade

Description of the Work:

Provide for continued repair, replacement and upgrades to the primary distribution system for the Capitol Complex, including replacement and relocation of transformers in the Capitol building, full generation for the Capitol Complex and specific generation improvements for Public Health and Information Technology. Work is being phased to initially meet the needs of Public Health and Information Technology, and that work has been funded and is nearing completion. When the project is complete, the entire primary loop system will be replaced or upgraded and the complex will have full back-up generation.

Progress of the Work:

Primary and alternate feeds from MidAmerican have been replaced. Three emergency generators are operational and a fourth generator is to be delivered in February 2007. Installation of underground ducts for the electrical loops for the east and west sides of the complex is underway.High voltage wire and transformers for the loops is scheduled to arrive in February. Installation of secondary feed conduits from transformer pads to main distribution panels in buildings is underway. Upgraded service to buildings will be completed in summer 2007. Fifth generator and completion of the loop.

Estimated Completion Date of the Project: June 2007

The schedule for additional work is dependent upon funding.

Total Estimated Cost of the Project: (See Comments Below)

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013. The accounting for some additional funds, provided by the Department of Public Health and the Information Technology Enterprise, is maintained with Major Maintenance projects. Additional details are available upon request.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***		***Amounts***
Tax-Exempt Bonds Proceeds Rest				
FY 2006	Appropriation	050T	Capitol Complex Electrical Distribution System Upgrade	$3,468,801
FY 2007	Supplementals	050T	Capitol Complex Electrical Distribution System Upgrade	$800,000
			Total Funds Appropriated from Tax-Exempt Bonds Proceeds Rest:	*$4,268,801*
			Total Pending (Out Year) Appropriations from Tax-Exempt Bonds Proceeds Rest:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Tax-Exempt Bonds Proceeds Rest:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Tax-Exempt Bonds Proceeds Rest:	*$4,268,801*
Rebuild Iowa Infrastructure Fund				
FY 2009-FY2013	*Five Year Plan Estimate*	*020T*	*Capitol Complex Electrical Distribution System Upgrade*	*$4,470,000*
FY 2008	Appropriation	020T	Capitol Complex Electrical Distribution System Upgrade	$3,460,960
FY 2006	Appropriation	020T	Capitol Complex Electrical Distribution System Upgrade	$1,843,878
			Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$5,304,838*
			Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$4,470,000*
			Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$9,774,838*
			Total Year To Date Appropriations:	***$9,573,639***
			Total Out Year Appropriations:	*$0*
			Total Five Year Plan Estimate:	*$4,470,000*
			Total Estimated Funding Requirement Through FY2013:	***$14,043,639***

Infrastructure Appropriations for Administrative Services Facilities

Location: Capitol Complex, Des Moines

Project: Monument Lighting for Allison and Soldiers & Sailors Monuments

Description of the Work:

This appropriation provides for decorative lighting for these monuments on the Capitol Complex.

Progress of the Work:

Work was completed in 2005.

Estimated Completion Date of the Project: (See Comments Below)

Total Estimated Cost of the Project: (See Comments Below)

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***	***Amounts***
Rebuild Iowa Infrastructure Fund			
FY 2005	Appropriation	0R30 Monument Lighting	$35,000
		Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$35,000*
		Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$0*
		Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$0*
		Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$35,000*
		Total Year To Date Appropriations:	***$35,000***
		Total Out Year Appropriations:	*$0*
		Total Five Year Plan Estimate:	*$0*
		Total Estimated Funding Requirement Through FY2013:	***$35,000***

Infrastructure Appropriations for Administrative Services Facilities

Location: Capitol Complex, Des Moines

Project: Property Acquisition and Related Services

Description of the Work:

Fund property acquisition and services related to property acquisition at the Capitol Complex including appraisals and environmental assessments.

Progress of the Work:

Funds have also been used to evaluate properties under consideration and for acquisition. In 2007, 1022 Des Moines Street and 709 E. Locust Street were acquired.

Estimated Completion Date of the Project: June 2009

Dependent upon availability of properties and reversion dates for funding.

Total Estimated Cost of the Project: (See Comments Below)

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013. It is anticipated that all appropriated funds will be expended. Additional funds have been requested although

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***		***Amounts***
Endowment for Iowa's Health Restricted Capitals Fund				
FY 2007	Appropriation	077R	Purchase Land FY07	$500,000
			Total Funds Appropriated from Endowment for Iowa's Health Restricted Capitals Fund:	*$500,000*
			Total Pending (Out Year) Appropriations from Endowment for Iowa's Health Restricted Capitals Fund:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Endowment for Iowa's Health Restricted Capitals Fund:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Endowment for Iowa's Health Restricted Capitals Fund:	*$500,000*
Tax-Exempt Bonds Proceeds Rest				
FY 2002	Appropriation	041R	DGS-Land Acquisition/Improvement	$200,000
FY 2003	Appropriation Transfer	041R	DGS-Land Acquisition/Improvement	$57,204
FY 2006	Reversions	041R	DGS-Land Acquisition/Improvement	($1,575)
			Total Funds Appropriated from Tax-Exempt Bonds Proceeds Rest:	*$255,629*
			Total Pending (Out Year) Appropriations from Tax-Exempt Bonds Proceeds Rest:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Tax-Exempt Bonds Proceeds Rest:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Tax-Exempt Bonds Proceeds Rest:	*$255,629*
Rebuild Iowa Infrastructure Fund				
FY 2009-FY2013	*Five Year Plan Estimate*	*011T*	*Capitol Complex Property Acquisition & Related Services*	*$1,000,000*
FY 2009-FY2013	*Five Year Plan Estimate*	*011T*	*Capitol Complex Property Acquisition & Related Services*	*$1,000,000*
FY 2009-FY2013	*Five Year Plan Estimate*	*011T*	*Capitol Complex Property Acquisition & Related Services*	*$1,000,000*
FY 2009-FY2013	*Five Year Plan Estimate*	*011T*	*Capitol Complex Property Acquisition & Related Services*	*$1,000,000*
FY 2009-FY2013	*Five Year Plan Estimate*	*011T*	*Capitol Complex Property Acquisition & Related Services*	*$1,000,000*
FY 2008	Appropriation	011T	Capitol Complex Property Acquisition & Related Services	$1,000,000
			Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$1,000,000*
			Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$5,000,000*
			Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$6,000,000*
			Total Year To Date Appropriations:	***$1,755,629***
			Total Out Year Appropriations:	*$0*
			Total Five Year Plan Estimate:	*$5,000,000*
			Total Estimated Funding Requirement Through FY2013:	***$6,755,629***

Infrastructure Appropriations for Administrative Services Facilities

Location: Capitol Complex, Des Moines

Project: Relocation and Leasing Assistance

Description of the Work:

Funding is for move related expenses, temporary lease costs, tenant improvements at leased locations and other relocation expenses related to renovation of and movement into buildings on the Capitol Complex. This funding enables selected agencies that are currently paying for leases off-complex to return to the Capitol Complex. It also allows for the temporary relocation of agencies on the Capitol Complex to off-complex locations, as may be required from time to time depending upon changing program needs on and off complex. The FY2007 appropriation allocates specific funds to Cultural Affairs; State Fire Marshal's lease, Corrections and Board of Parole; and Community Based Corrections.

Progress of the Work:

The following agencies were returned to the Capitol Complex from leased facilities: Corrections, Elder Affairs, Board of Parole, Public Health, Public Employment Relations Board (PERB) and Ethics and Campaign Disclosure Board. Other agencies were housed in leased facilities with these funds. Funds specified in the FY2007 appropriation for use by Cultural Affairs and Community Based Corrections have been transferred to those agencies. Funds specified in the FY2007 appropriation for use by Corrections and the Board of Parole for Capitol Complex Association fees are being managed by the Department of Administrative Services.

Estimated Completion Date of the Project: June 2010

Leasing and relocation work is on-going and it is expected that completion of the project(s) will coincide with reversion of the funds.

Total Estimated Cost of the Project: (See Comments Below)

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013. It is anticipated that the full amount of funds appropriated from FY2003 through FY2008.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***		***Amounts***
Iowa Infrastructure Account				
FY 2002	Appropriation	083R	Relocation/Transition Costs	$1,000,000
FY 2001	Appropriation	083R	Relocation/Transition Costs	$1,668,000
FY 2000	Appropriation	083R	Relocation/Transition Costs	$2,094,000
			Total Funds Appropriated from Iowa Infrastructure Account:	*$4,762,000*
			Total Pending (Out Year) Appropriations from Iowa Infrastructure Account:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Iowa Infrastructure Account:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Iowa Infrastructure Account:	*$4,762,000*
Rebuild Iowa Infrastructure Fund				
FY 2008	Appropriation	0R08	DGS-Leases/Assistance	$1,824,500
FY 2006	Appropriation	0R08	DGS-Leases/Assistance	$1,824,000
FY 2005	Appropriation	0R08	DGS-Leases/Assistance	$2,271,617
FY 2007	Appropriation	040T	DGS-Leases/Assistance	$1,824,500
FY 2004	Appropriation	0R08	DGS-Leases/Assistance	$631,449
FY 2003	Appropriation	0R08	DGS-Leases/Assistance	$898,000
			Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$9,274,066*
			Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$9,274,066*

Infrastructure Appropriations for Administrative Services Facilities

Location: Capitol Complex, Des Moines

Project: Relocation and Leasing Assistance

Total Year To Date Appropriations:	***$14,036,066***
Total Out Year Appropriations:	*$0*
Total Five Year Plan Estimate:	*$0*
Total Estimated Funding Requirement Through FY2013:	***$14,036,066***

Infrastructure Appropriations for Administrative Services Facilities

Location: Capitol Complex, Des Moines

Project: Pedestrian/Utility Tunnel Repairs

Description of the Work:

Planning, design and repairs to all of the pedestrian and utility tunnels on the Capitol Complex. The project funding will be part of a five year plan to address the badly needed repairs.

Progress of the Work:

The report should be completed by Feb 28, 2008. However, the actual project could take up to 5 years to complete.

Estimated Completion Date of the Project: January 2013

Total Estimated Cost of the Project: $26,546,000

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***		***Amounts***
Rebuild Iowa Infrastructure Fund				
FY 2009-FY2013	*Five Year Plan Estimate*	*010T*	*Complex Utility Tunnel*	*$5,049,200*
FY 2009-FY2013	*Five Year Plan Estimate*	*010T*	*Complex Utility Tunnel*	*$5,309,200*
FY 2009-FY2013	*Five Year Plan Estimate*	*010T*	*Complex Utility Tunnel*	*$5,309,200*
FY 2009-FY2013	*Five Year Plan Estimate*	*010T*	*Complex Utility Tunnel*	*$5,309,200*
FY 2009-FY2013	*Five Year Plan Estimate*	*010T*	*Complex Utility Tunnel*	*$5,309,200*
FY 2008	Appropriation	010T	Complex Utility Tunnel	$260,000
			Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$260,000*
			Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$26,286,000*
			Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$26,546,000*
			Total Year To Date Appropriations:	***$260,000***
			Total Out Year Appropriations:	*$0*
			Total Five Year Plan Estimate:	*$26,286,000*
			Total Estimated Funding Requirement Through FY2013:	***$26,546,000***

Infrastructure Appropriations for Administrative Services Facilities

Location: Capitol Complex, Des Moines

Project: Vehicle Dispatch and Fleet Relocation

Description of the Work:

This site is located on the southwest corner of the West Capitol Terrace. The garage building would be converted into a state agency office space and a courtyard would be created adjacent to/north of the building. The vehicle fueling station would be relocated in close proximity to the garage. This would eventually complement the grand entrance to the West Capitol Terrace.

Progress of the Work:

$350,000.00 has been appropriated for 08. Potential locations for the fleet garage building and vehicle fueling station include the Merry Capitol site and building an addition to the FMC building. An RFP is being developed to determine the design and cost for an efficient fleet garage/fueling station operation.

Estimated Completion Date of the Project: (See Comments Below)

Total Estimated Cost of the Project: (See Comments Below)

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***	***Amounts***
Rebuild Iowa Infrastructure Fund			
FY 2008	Appropriation	0R03 Vehicle Dispatch Fleet Relocation	$350,000
		Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$350,000*
		Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$0*
		Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$0*
		Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$350,000*
		Total Year To Date Appropriations:	***$350,000***
		Total Out Year Appropriations:	*$0*
		Total Five Year Plan Estimate:	*$0*
		Total Estimated Funding Requirement Through FY2013:	***$350,000***

Infrastructure Appropriations for Administrative Services Facilities

Location: Capitol Complex, Des Moines

Project: Central Energy Plant and Facilities Management Center Additions and Improvements

Description of the Work:

This project provides design and construction services for improvements and additions to the Central Energy Plant, the Central Energy Plant cooling equipment, and the Facilities Management Center Building.

Progress of the Work:

$2,907,000.00 is the total price this project will cost.
There was $998,000.00 appropriated for this project in 2007. This project will take 5 years to complete. Installation of the new 400 ton dry cooling equipment is being installed and is expected to be up and running by June 30, 2008. The remaining projects are on hold pending funding.

Estimated Completion Date of the Project: June 2013

Total Estimated Cost of the Project: $2,907,000

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***		***Amounts***
Rebuild Iowa Infrastructure Fund				
FY 2009-FY2013	*Five Year Plan Estimate*	*0R06*	*Central Energy Plant & Facilities Mgmt Additions &*	*$316,000*
FY 2009-FY2013	*Five Year Plan Estimate*	*0R06*	*Central Energy Plant & Facilities Mgmt Additions &*	*$545,000*
FY 2009-FY2013	*Five Year Plan Estimate*	*0R06*	*Central Energy Plant & Facilities Mgmt Additions &*	*$425,000*
FY 2009-FY2013	*Five Year Plan Estimate*	*0R06*	*Central Energy Plant & Facilities Mgmt Additions &*	*$623,000*
FY 2008	Appropriation	0R06	Central Energy Plant & Facilities Mgmt Additions &	$998,000
			Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$998,000*
			Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$1,909,000*
			Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$2,907,000*
			Total Year To Date Appropriations:	***$998,000***
			Total Out Year Appropriations:	*$0*
			Total Five Year Plan Estimate:	*$1,909,000*
			Total Estimated Funding Requirement Through FY2013:	***$2,907,000***

Infrastructure Appropriations for Administrative Services Facilities

Location: Capitol Complex, Des Moines

Project: Hoover HVAC Improvements

Description of the Work:

The project will replace old pneumatic controls with electronic monitoring. The replacement of this old system will result in greater energy efficiency and dependability.

Progress of the Work:

$1,320,000.00 has been appropriated for the first phase of the HVAC improvements. Modifications are in design phase, and Chuck Pedersen is working on developing an opinion of probably construction costs for the replacement of pneumatic controlled VAV boxes with new DDC controlled VAV boxes, as well as other various issues.

Estimated Completion Date of the Project: (See Comments Below)

Total Estimated Cost of the Project: (See Comments Below)

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***		***Amounts***
Rebuild Iowa Infrastructure Fund				
FY 2009-FY2013	*Five Year Plan Estimate*	*0R09*	*Hoover Building HVAC Improvements*	*$1,500,000*
FY 2008	Appropriation	0R09	Hoover Building HVAC Improvements	$1,320,000
			Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$1,320,000*
			Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$1,500,000*
			Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$2,820,000*
			Total Year To Date Appropriations:	***$1,320,000***
			Total Out Year Appropriations:	*$0*
			Total Five Year Plan Estimate:	*$1,500,000*
			Total Estimated Funding Requirement Through FY2013:	***$2,820,000***

Infrastructure Appropriations for Administrative Services Facilities

Location: Iowa Laboratories, Ankeny

Project: New Multipurpose Laboratories Facility

Description of the Work:

Design and construction of a new multipurpose laboratories facility for the Department of Agriculture and Land Stewardship (including Metrology); Department of Public Safety, Division of Criminal Investigation; Department of Public Health, State Medical Examiner; University of Iowa Hygienic Lab, Des Moines Division.

Progress of the Work:

Work is complete and agencies have moved into the facility. Warranty items and additional enhancements are continuing, including completion of a Bio-safety Level 3 Laboratory for the University Hygienic Lab.Warranty work and enhancements are continuing, BLS-3 is operational and has passed commissioning. Punch list is review monthly.

Estimated Completion Date of the Project: October 2008

Total Estimated Cost of the Project: (See Comments Below)

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013. The project has been completed with appropriated funds. The occupants have contributed additional funds for an additional DNA lab and for a BSL-3 lab. Additonal funds were contributed by Public Safety, the City of Ankeny, Homeland Security/Emergency Management, and MidAmerican Energy (rebate). Additional funds are anticipated from the University Hygienic Lab

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***		***Amounts***
Iowa Infrastructure Account				
FY 2001	Appropriation	015C	DGS - New Building/Office/Lab	$3,200,000
			Total Funds Appropriated from Iowa Infrastructure Account:	*$3,200,000*
			Total Pending (Out Year) Appropriations from Iowa Infrastructure Account:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Iowa Infrastructure Account:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Iowa Infrastructure Account:	*$3,200,000*
Tax-Exempt Bonds Proceeds Rest				
FY 2004	Appropriation	058R	DGS-Multipurpose Lab	$16,660,000
FY 2003	Appropriation	058R	DGS-Multipurpose Lab	$16,670,000
FY 2002	Appropriation	058R	DGS-Multipurpose Lab	$16,670,000
FY 2007	Appropriation Transfer	058R	DGS-Multipurpose Lab	$473,000
			Total Funds Appropriated from Tax-Exempt Bonds Proceeds Rest:	*$50,473,000*
			Total Pending (Out Year) Appropriations from Tax-Exempt Bonds Proceeds Rest:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Tax-Exempt Bonds Proceeds Rest:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Tax-Exempt Bonds Proceeds Rest:	*$50,473,000*
			Total Year To Date Appropriations:	***$53,673,000***
			Total Out Year Appropriations:	*$0*
			Total Five Year Plan Estimate:	*$0*
			Total Estimated Funding Requirement Through FY2013:	***$53,673,000***

Infrastructure Appropriations for Administrative Services Facilities

Location: Iowa Laboratories, Ankeny

Project: New Multipurpose Laboratories Facility Maintenance and Operations

Description of the Work:

Provide heat, lights, air conditioning and water (the essential utility services including natural gas, electricity, water and sewer services) to operate the facilities of the Capitol Complex and the Labs Facility at Ankeny, including other maintenance and operational needs..

Progress of the Work:

Funds have been expended for utility costs associated with start-up and for some equipment needs. Progress of work: Completed, all services are installed and serving the buidling as attended.

Estimated Completion Date of the Project: November 2007

Total Estimated Cost of the Project: (See Comments Below)

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013. It is anticipated that all appropriated funds will be utilized.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***	***Amounts***
Rebuild Iowa Infrastructure Fund			
FY 2005	Appropriation	0R28 DGS-Lab Facility Routine Maint.	$355,500
		Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$355,500*
		Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$0*
		Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$0*
		Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$355,500*
		Total Year To Date Appropriations:	***$355,500***
		Total Out Year Appropriations:	*$0*
		Total Five Year Plan Estimate:	*$0*
		Total Estimated Funding Requirement Through FY2013:	***$355,500***

Infrastructure Appropriations for Not For Profit Facilities

Location: Capitol Complex, Des Moines

Project: Iowa Workers Monument

Description of the Work:

The Department received an appropriation, with funds to be transferred to the IOWA WORKFORCE Development Foundation for construction of a monument on the grounds of the Capitol Complex.

Progress of the Work:

Funds were transferred in July 2007

Estimated Completion Date of the Project: April 2008

The monument is expected to be installed in April 2008

Total Estimated Cost of the Project: $200,000

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***	***Amounts***
Rebuild Iowa Infrastructure Fund			
FY 2008	Appropriation	039T Workers' Monument	$200,000
		Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$200,000*
		Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$0*
		Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$0*
		Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$200,000*
		Total Year To Date Appropriations:	***$200,000***
		Total Out Year Appropriations:	*$0*
		Total Five Year Plan Estimate:	*$0*
		Total Estimated Funding Requirement Through FY2013:	***$200,000***

Infrastructure Appropriations for Human Services Facilities

Location: Cherokee Mental Health Institute, Cherokee

Project: Cherokee CCUSO Renovation

Description of the Work:

Renovation of additional "stacks" of at the CCUSO operation to accommodate growth in patient admissions and provide a secure, safe environment for patients and staff. Design and installation of a new elevator/stair addition for CCUSO between south stacks B & C adding a handicap access elevator to the main administration building south side.

Progress of the Work:

The first two stacks of three stacks are complete and design is underway for the third stack.

Estimated Completion Date of the Project: April 2010

Total Estimated Cost of the Project: $3,629,000

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013. It is anticipated that all appropriated funds will be expended and additional funds have been requested.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***		***Amounts***
Tax-Exempt Bonds Proceeds Rest				
FY 2006	Appropriation	031T	DHS-CCUSO Rest Cap	$650,000
			Total Funds Appropriated from Tax-Exempt Bonds Proceeds Rest:	*$650,000*
			Total Pending (Out Year) Appropriations from Tax-Exempt Bonds Proceeds Rest:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Tax-Exempt Bonds Proceeds Rest:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Tax-Exempt Bonds Proceeds Rest:	*$650,000*
Rebuild Iowa Infrastructure Fund				
FY 2009	*FY2009 Appropriation*	*026T*	*DHS-CCUSO Renovation*	*$829,000*
FY 2006	Appropriation	026T	DHS-CCUSO Renovation	$1,400,000
FY 2008	Appropriation	051T	CCUSO Facility	$750,000
			Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$2,150,000*
			Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$829,000*
			Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$2,979,000*
			Total Year To Date Appropriations:	***$2,800,000***
			Total Out Year Appropriations:	*$829,000*
			Total Five Year Plan Estimate:	*$0*
			Total Estimated Funding Requirement Through FY2013:	***$3,629,000***

Infrastructure Appropriations for Human Services Facilities

Location: Iowa Juvenile Home, Toledo

Project: Iowa Juvenile Home Powerhouse Replacement

Description of the Work:

Replace the existing powerhouse and all associated equipment. The project will involve the following major items: stabilize the West wall of the existing Power House to avoid collapse; design and construction of geothermal heat pump system for heating and cooling; installation of furnaces in buildings that will not be served by geothermal system; installation of new centralized domestic hot water system; waterproofing existing tunnel system with asbestos removal as required; raze the existing Power House and removal of underground storage tanks; energy management improvements of window replacement, faucet and lighting upgrades, roof insulation and cooler and freezer replacement.

Progress of the Work:

Well field for geothermal system has been installed. Bids due Feb 2008 with system operational in late Fall. Demolition work will take place in 2009.

Estimated Completion Date of the Project: (See Comments Below)

Geothermal system is to be operational at the end of 2008. Demolition work will take place by late 2009.

Total Estimated Cost of the Project: $9,717,000

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013. Additional funds have been requested.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***		***Amounts***
Endowment for Iowa's Health Restricted Capitals Fund				
FY 2007	Appropriation	042T	DHS - Toledo Renovation	$1,521,045
			Total Funds Appropriated from Endowment for Iowa's Health Restricted Capitals Fund:	*$1,521,045*
			Total Pending (Out Year) Appropriations from Endowment for Iowa's Health Restricted Capitals Fund:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Endowment for Iowa's Health Restricted Capitals Fund:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Endowment for Iowa's Health Restricted Capitals Fund:	*$1,521,045*
Rebuild Iowa Infrastructure Fund				
FY 2006	Appropriation	027T	DHS - IJH Powerhouse	$1,161,045
FY 2007	Appropriation	053T	DHS - Toledo RIIF	$7,035,000
			Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$8,196,045*
			Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$8,196,045*
			Total Year To Date Appropriations:	***$9,717,090***
			Total Out Year Appropriations:	*$0*
			Total Five Year Plan Estimate:	*$0*
			Total Estimated Funding Requirement Through FY2013:	***$9,717,090***

Infrastructure Appropriations for Human Services Facilities

Location: Iowa Juvenile Home, Toledo

Project: Iowa Juvenile Home Education & Infirmary Building

Description of the Work:

Construct a new school/infirmary building at the Iowa Juvenile Home; renovate existing school building; demolish old infirmary and Wilson Cottage. The construction will provide substantially increased space for vocational instruction and training, provide a science lab to be used in conjunction with academic classes, and build a modern gym. The construction will also allow the infirmary to be moved from its present outdated and inefficient space into the basement of the new building.

Progress of the Work:

Design is underway and construction documents are approximately 50% complete. Bids for construction are due in April 2008.

Estimated Completion Date of the Project: June 2009

School and infirmary to be completed by June 2009 with demolition of the Infirmary to follow.

Total Estimated Cost of the Project: $8,130,668

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013. Additional funds have been appropriated for FY2008.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***		***Amounts***
Endowment for Iowa's Health Restricted Capitals Fund				
FY 2007	Appropriation	076R	DHS TOLEDO EDUC INFIRMARY BLDG FY07	$5,030,668
			Total Funds Appropriated from Endowment for Iowa's Health Restricted Capitals Fund:	*$5,030,668*
			Total Pending (Out Year) Appropriations from Endowment for Iowa's Health Restricted Capitals Fund:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Endowment for Iowa's Health Restricted Capitals Fund:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Endowment for Iowa's Health Restricted Capitals Fund:	*$5,030,668*
Rebuild Iowa Infrastructure Fund				
FY 2008	Appropriation	036T	DHS Iowa Juvenile School Home New Education &	$3,100,000
			Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$3,100,000*
			Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$3,100,000*
			Total Year To Date Appropriations:	***$8,130,668***
			Total Out Year Appropriations:	*$0*
			Total Five Year Plan Estimate:	*$0*
			Total Estimated Funding Requirement Through FY2013:	***$8,130,668***

Infrastructure Appropriations for Human Services Facilities

Location: Woodward Resource Center, Woodward

Project: Woodward Resource Center Wastewater Treatment Plant

Description of the Work:

Replace the 70-year old wastewater treatment plant at the Woodward Resource Center with a three cell lagoon system which permits the facility to comply with health and safety standards issued by the state Department of Natural Resources (DNR) for wastewater treatment plants. The current plant is not in compliance with these standards and has received citations from the DNR. Temporary improvements were made but will only last for a few years and will not bring the plant into full compliance. Non-compliance with the standards could result in a fine from the DNR and action to close the wastewater treatment operation, forcing the closure of the facility. The wastewater treatment plant serves the approximately 500 dependent residents and 760 staff who support these residents.

Progress of the Work:

Construction is complete and close-out is underway except for demolition of the existing treatment plant.

Estimated Completion Date of the Project: November 2007

Plant is operational. Demolition of the existing treatment plant is beginning.

Total Estimated Cost of the Project: $2,443,000

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013. It is anticipated that all funds will not be expended. Estimated $800,000.00 will be available.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***		***Amounts***
Endowment for Iowa's Health Restricted Capitals Fund				
FY 2007	Appropriation	047T	Woodward Resource Center Wastewater Treatment	$2,443,000
			Total Funds Appropriated from Endowment for Iowa's Health Restricted Capitals Fund:	*$2,443,000*
			Total Pending (Out Year) Appropriations from Endowment for Iowa's Health Restricted Capitals Fund:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Endowment for Iowa's Health Restricted Capitals Fund:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Endowment for Iowa's Health Restricted Capitals Fund:	*$2,443,000*
			Total Year To Date Appropriations:	***$2,443,000***
			Total Out Year Appropriations:	*$0*
			Total Five Year Plan Estimate:	*$0*
			Total Estimated Funding Requirement Through FY2013:	***$2,443,000***

Infrastructure Appropriations for Terrace Hill Facilities

Location: Terrace Hill, Des Moines

Project: Terrace Hill Maintenance

Description of the Work:

For repairs to the exterior of the mansion and carriage house, including roofs, windows and ornamental exterior components; for design of a new boiler system; signage, for plaster repairs and for replacement of historic carpeting in the mansion's main corridors.

Progress of the Work:

Roof has been completed. Window repairs completed. Plaster in Music Rom completed. Signage completed.

Estimated Completion Date of the Project: (See Comments Below)

Exterior repair work is under way. Carpet replacement and plaster repairs will take place in 2008.

Total Estimated Cost of the Project: $1,379,708

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013. Terrace Hill has received a Save America's Treasures grant to assist with the exterior repair work. $20,000 still to be received from grant.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***		***Amounts***
Tax-Exempt Bonds Proceeds Rest				
FY 2007	Supplementals	029T	Terrace Hill Maintenance	$700,000
			Total Funds Appropriated from Tax-Exempt Bonds Proceeds Rest:	*$700,000*
			Total Pending (Out Year) Appropriations from Tax-Exempt Bonds Proceeds Rest:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Tax-Exempt Bonds Proceeds Rest:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Tax-Exempt Bonds Proceeds Rest:	*$700,000*
Rebuild Iowa Infrastructure Fund				
FY 2009-FY2013	*Five Year Plan Estimate*	*030T*	*Terrace Hill Maintenance*	*$287,000*
FY 2009-FY2013	*Five Year Plan Estimate*	*030T*	*Terrace Hill Maintenance*	*$669,000*
FY 2006	Appropriation	030T	Terrace Hill Maintenance	$571,000
FY 2007	Appropriation	030T	Terrace Hill Maintenance	$75,000
			Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$646,000*
			Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$956,000*
			Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$1,602,000*
			Total Year To Date Appropriations:	***$1,346,000***
			Total Out Year Appropriations:	*$0*
			Total Five Year Plan Estimate:	*$956,000*
			Total Estimated Funding Requirement Through FY2013:	***$2,302,000***

Infrastructure Appropriations for Not For Profit Facilities

Location: American Disabled Veterans Memorial, Washington, DC

Project: Disabled American Veterans Memorial in Washington DC

Description of the Work:

The Department received an appropriation, with the funds to be transferred to the Disabled Veterans Life Memorial.

Progress of the Work:

Funds were transferred in November 2007.

Estimated Completion Date of the Project: (See Comments Below)

The department is not involved in construction.

Total Estimated Cost of the Project: $50,000

Note: Total Estimated Cost of the Project = Year To Date Appropriations + Out Year Appropriations + Five Year Plan Requests through FY2013.

List of All Revenue Sources Being Used to Fund the Project:

Source of Funds / Fiscal Year / Type		***Appropriation Code and Name***		***Amounts***
Rebuild Iowa Infrastructure Fund				
FY 2008	Appropriation	052T	American Disabled Veterans Memorial	$50,000
			Total Funds Appropriated from Rebuild Iowa Infrastructure Fund:	*$50,000*
			Total Pending (Out Year) Appropriations from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Five Year Plan Estimate for Additional Funds from Rebuild Iowa Infrastructure Fund:	*$0*
			Total Estimated Funding Requirement Through FY2013 from Rebuild Iowa Infrastructure Fund:	*$50,000*
			Total Year To Date Appropriations:	***$50,000***
			Total Out Year Appropriations:	*$0*
			Total Five Year Plan Estimate:	*$0*
			Total Estimated Funding Requirement Through FY2013:	***$50,000***

Iowa Department of Administrative Services

Chester J. Culver, Governor
Patty Judge, Lt. Governor

Mollie K. Anderson, Director

Return on Investment Program
FY 07 Project Status Report
Submitted to Legislature 12/19/07

There is a reporting requirement for projects funded through the Technology Reinvestment Fund (also known as the Return on Investment Program, or ROI Program). The Technology Reinvestment Fund was created during the 2006 legislative session, and the first appropriations from this fund were for FY 2006-2007. The first report will relate to that fiscal year and is due to the legislature by January 1, 2008. Following is the section of the code for the report excerpted from 8.57C:

> *Annually, on or before January 1 of each year, a state agency that received an appropriation from this fund for the preceding fiscal year shall report to the joint transportation, infrastructure, and capitals appropriation subcommittee, the legislative services agency, the department of management, and the legislative capital projects committee of the legislative council the status of all ongoing projects for which an appropriation from this fund has been made. The report shall include a description of the project, the progress of work completed, the total estimated cost of the project, a list of all revenue sources being used to fund the project, the amount of funds expended, the amount of funds obligated, and an estimated completion date of the project.*

Each project that received funding through the ROI program for FY 2006-2007 completed the following items. Where applicable, the ROI records for each project were used to complete items from Budget Offer and I/3 budget information.

- Project Name and Description
- All Revenue Sources for Funding
- Agency Submitting Request
- Percent of Completed Work
- Total Estimated Project Cost
- All Revenue Sources for Funding
- Expended Funds
- Obligated Funds
- Estimated Completion Date

DAS collected those data items for all FY 07 ROI projects and sent the completed report to the following parties on December 19, 2007 before the filing deadline of January 1, 2008:

Joint Transportation, Infrastructure and Capitals Appropriation Subcommittee
Legislative Services Agency
Department of Management
Legislative Capital Projects Committee of the Legislative Council

Hoover Building Des Moines, Iowa 50319 Phone (515) 281-5360 Fax (515) 281-6140

This table includes ROI reimbursements processed through DAS Finance, as of December 17, 2007.

Table A: FY 07 ROI Project Expenditures

Project Name	Agency	% Complete	Original Request	Adjusted Request	Expenditures to-date	Obligated Funds	Estimated Complete Date
Overpayment Recoupment Rewrite	Human Services	31%	$ 1,318,000	$ 1,118,000	$ 346,612	$ 771,388	6/30/08 **(1)**
Enterprise Data Warehouse	Administrative Services	100%	$ 494,170	$ 394,170	$ 327,564	$ 0	**Complete**
Electronic Tax Administration and Collection	Revenue	100%	$ 560,000	$ 500,000	$ 500,000	$ 0	**(2)**
Criminal Justice Information System Integration	Human Rights	100%	$ 200,000	$ 200,000	$ 200,000	$ 0	**(3)**
Resident Banking, Billing and Admission	Vets Home	35%	$ 262,270	$ 262,270	$ 91,884	$ 170,386	6/30/08 **(4)**
Offender Management System to ICON	Corrections	57%	$ 800,000	$ 700,000	$ 400,000	$ 300,000	6/30/08
Aging and Disability Resource Connection	Elder Affairs	72%	$ 100,500	$ 100,500	$ 72,001	$ 28,499	6/30/08
Seamless Service System Transfer to the ITE	Elder Affairs	100%	$ 150,000	$ 150,000	$ 150,000	$ 0	**Complete**
TOTALS			$ 3,884,940	$ 3,424,940	$ 2,088,061	$ 1,270,273	

(1) Phase I of project completed, and it converted the legacy application to a distributed client server platform. Phase II of project under way and expected to complete 6/30/2008. This phase is to correct existing data, performance and reporting problems. Phase II is on track and on budget.

(2) Department of Revenue comment regarding completion date - IDR expended $500,000 of Pooled Technology Funds for the initiatives planned in FY 08.

(3) Human Rights comment regarding completion date – The project began in 2001, and the total estimated cost for CJIS is $15,000,000. for five years with $2,000,000 completed and $6,000,000 obligated out of $8,000,000 in received. The entire CJIS project has a completion date of 6/30/2012.

(4) Expenditure delay is due to vendor/IVH contract agreement which states that IVH disburse a proportional amount of funds after relative modules of software are implemented, tested, and verified. Estimated complete date of 6/30/08 remains target date.

FY 07 appropriation within the Technology Reinvestment Fund to the Department of Administrative Services for technology improvement projects was $3,358,334.00*

(*difference of $66,606 between the appropriation amount and the adjusted funds total is the annual maintenance for the Enterprise Data Warehouse project)

FY 07 ROI funds revert on June 30, 2008

Table B. FY 07 ROI Project Descriptions and Funding Sources

1. Overpayment Recoupment Re-write

Benefit calculation errors brought about by incorrect reporting or case processing, or by deliberate client misreporting, cause some recipients to receive overpayments. DHS partners with the Departments of Inspections and Appeals, and Revenue to establish, and track overpayments, and reconcile overpayments and collections.

Funding Sources:

FY 07 funding for this project was provided entirely by FY 07 ROI program funds.

2. Enterprise Data Warehouse

Funding for the second year of a 3-year lease/purchase and maintenance for the NCR 5400H Server to support the Teradata Enterprise Data Warehouse (EDW). The EDW creates commonality across a platform, establishing the ability to directly link data from multiple agencies in common use applications.

Funding Sources:

Funded entirely by the FY 07 ROI program funds. FY 06 funding was a mix of ROI program funds and transfers from the Department of Revenue and the Department of Human Rights (approximately 40% ROI and 60% other state agencies).

3. Electronic Tax Administration and Collection Application Modernization

Extends the benefits of electronic service delivery in support of the department's collection activities.

Funding Sources:

In addition to the $500,000 of Pooled Technology funds expended, the department funded an additional $750,000 of direct expenditures in support of initiatives under the department's Electronic Tax Administration program. These funds were obtained from department operational budget including appropriations from general fund and road use tax fund for support of department efforts to collect motor vehicle fuel taxes. The program of Electronic Tax Administration is an ongoing strategic initiative of the agency which will continue to support efforts for filing and payment of taxes and providing access to taxpayers to information managed by the agency.

4. Criminal Justice Information System Integration

Develops a seamless, real time capability to share information among all members of the justice community.

Funding Sources:

State appropriation; National Governor's Association Grants; Byrne Grants; National Criminal History Improvement Program Grants; Return on Investment Funds; Homeland Security Funds; Local Government Innovation Fund; Agency Operating Funds.

5. Resident Banking, Billing and Admission

Replaces a 20-year-old system that handles the billing, admission process and banking for Iowa's 700 veteran residents

Funding Sources:

FY 07 funding for this project provided entirely by the FY 07 ROI program.

6. Software Upgrade for Maintaining Student Data

A cooperative effort between both of the Juvenile Institutions and will standardize the student information system used by both. The system will utilize Structured Query Language (SQL) for the database to make it possible to keep the information needed on student demographics and history. The software will be capable of storing data for each student and moving to digital records in the future or when deemed appropriate. NOTE: This project was included on the Budget Offer but did not receive any ROI funding.

7. Offender Management System to ICON

The ICON system is the offender management system of the Iowa Department of Corrections. The project funded with this request will be to enhance the ICON system so that it expands its ability to share data with all of the criminal justice agencies in Iowa as required by an agreement between the Governor and the Chief Judge.

Funding Sources:

Of the total funds allocated for ICON in FY 07, 43% of the funds were from the ROI program and 57% were from the general fund appropriation.

8. Aging and Disability Resource Connection

This project will 1) promoting public policy and service system changes that protect the rights of older Iowans and facilitate access to needed services; 2) support policies, programs and initiatives that improve access to affordable, high quality home and community-based services for older Iowans; and, 3) to developing, maintaining, and enhancing reporting systems that provide accurate and reliable data necessary for planning and policy development.

Funding Sources:

This project was funded by a mixture of the federal Older Americans Act discretionary grant to the agency (81%) and by Return on Investment Funds (19%).

9. Seamless Service System Transfer to ITE

The Seamless Delivery System is an information gathering system to make it easier for elder clients to access services they need to maintain a lifestyle that will in many cases allow them to remain in their own homes with dignity for a longer period of time than if they were not able to access necessary services.

Funding Sources:

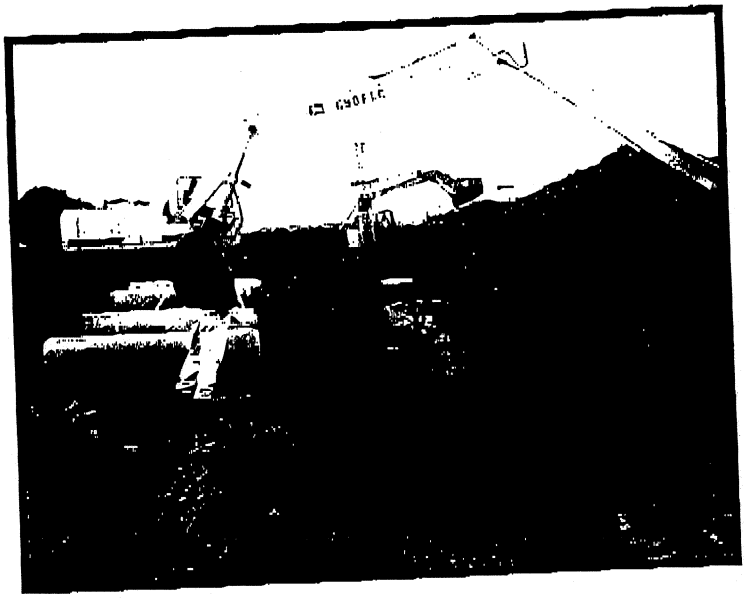
This project was funded by an approximate mixture of the state appropriation to the agency (20%) and by Return on Investment Funds (80%). Work done in previous fiscal years was essentially a mix of federal Older Americans Act discretionary grant funds (80% and state appropriation 20%).

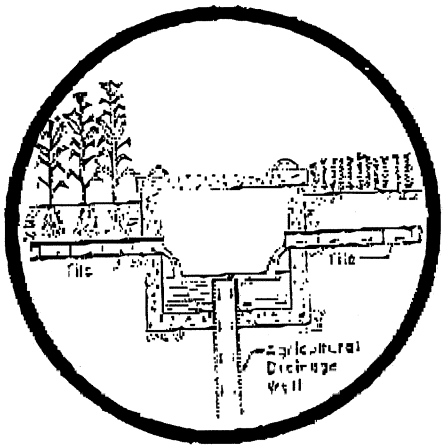
DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP

Agricultural Drainage Well Water Quality Assistance Fund

Agricultural drainage wells were developed in the early to mid 1900's and discharge cropland tile drainage water to underground aquifers. The fund was established in 1997 and protects drinking water aquifers by cost-sharing with landowners to close agricultural drainage wells and develop alternative drainage outlets to surface streams or install alternative management practices. Projects are typically constructed through drainage districts, although some projects are undertaken by individual landowners.

- 296 agricultural drainage wells (ADWs) in Iowa registered in 1987
- 62 ADWs closed without assistance fund or determined by IDNR to not be functioning ADWs
- 102 ADWs closed to date using $5.8 million of assistance fund
- 186 continued use permits issued by the IDNR that will expire in 2009
- 20 ADWs closures are currently under construction
- 12 ADWs closures are currently under design for planned closures with cost-share funds
- 76 ADWs existing without current or planned projects





Funding Status

FY08 appropriation	$1,480,000
Carried Forward 6/30/07	$1,499,000
Expenditures 7/1 to 12/31/07	$ 302,000
Obligated/Encumbered	$2,677,000
Unobligated	$0
Unfunded Applications	$16,800,000

For further information, contact:

Dean Lemke, Chief
Water Resources Bureau
Iowa Department of Agriculture and Land Stewardship
515-281-3963
Dean.Lemke@idals.state.ia.us

Karey Claghorn
Deputy Secretary of Agriculture
Acting Director, Division of Soil Conservation
515-281-5322
Karey.Claghorn @idals.state.ia.us

12/31/07

Iowa Conservation Reserve Enhancement Program (CREP)

The Iowa Conservation Reserve Enhancement Program (CREP) was initiated in 2000 and is a joint effort of the Iowa Department of Agriculture and Land Stewardship and the USDA Farm Service Agency to remove nitrate to protect Iowa drinking water and reduce hypoxia in the Gulf of Mexico. It is a highly targeted water quality program focusing on the reduction of nitrate loads to surface waters through the construction of strategically located and designed wetlands that intercept tile-drainage water from upper-lying cropped lands.

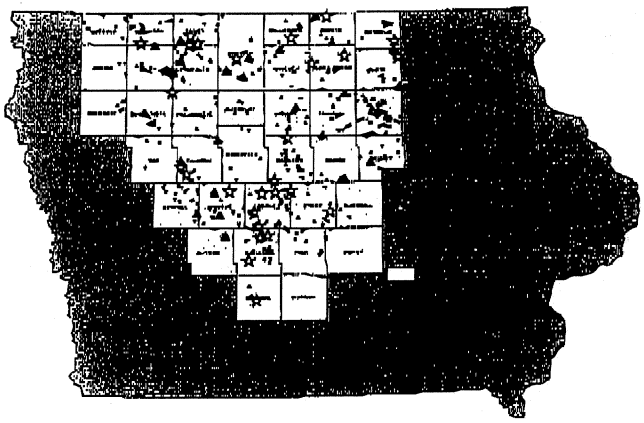
- Research and monitoring by Iowa State University has shown that CREP wetlands will remove 40-90% of the nitrate in tile-drainage water.
- Wetlands constructed to date (27 sites) and those currently being designed (28 sites) are estimated to remove over 43,000 tons of nitrogen over design life. These wetlands will provide water quality protection for 70,083 acres of land.
- Over 400 potential sites exist for landowner consideration
- Average lifetime nitrogen removal costs : $0.23/lb removed, $1.76/acre treated

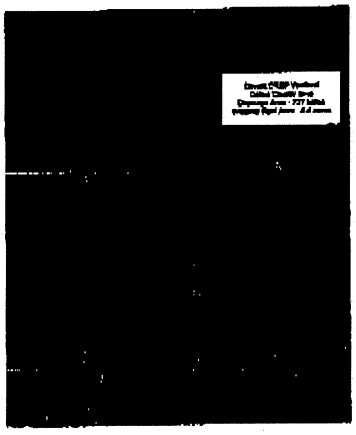
Funding Status:

- State funds are matched 4:1 with Federal funds

FY08 appropriation	$1,500,000
Carry forward June 30, 2007	$4,732,000
USDA Construction Expenses Reimbursements (FSA)	$ 508,000
Expenditures July 1 to Dec. 31, 2007	$ 782,000
Obligated/encumbered	$5,958,000
Unobligated	$ 0

Current Iowa CREP - Nitrate Removal Wetlands





For further information, contact:
Dean Lemke, Chief
Water Resources Bureau
Iowa Department of Agriculture and Land Stewardship
515-281-3963
Dean.Lemke@idals.state.ia.us

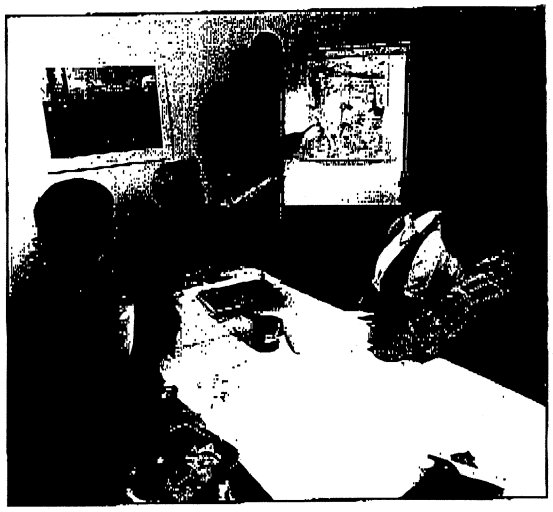
Karey Claghorn, Deputy Secretary of Agriculture
Acting Director - Division of Soil Conservation
Iowa Department of Agriculture and Land Stewardship
515-281-5322
Karey.Claghorn@idals.state.ia.us

12/31/2007

Conservation Reserve Program (CRP)

The Conservation Reserve Program was established in 2000. Program initiatives are delivered through local Soil and Water Conservation Districts (SWCDs) to leverage dollars for federal conservation programs, increasing Iowa's overall participation in both state and federal programs. Locally-led initiatives prioritize and target sensitive areas, by providing funds and resources to protect our soil and water resources.

- Iowa leads the nation in the USDA Continuous Conservation Reserve Program (CRP) with 541,688 acres enrolled.
- Enrolled 167 acres in Iowa buffers (non-CRP).
- Planting 530 acres of trees on CRP to keep it in permanent cover.
- Planned 4,158 acres of grazing on CRP that has contracts that expire in 2007 & 2008.
- Provided technical assistance in districts to enroll CRP and install Federal Environmental Quality Incentive Program (EQIP) practices.
- Generated $445,513.06 of landowner investment and over $20 million in federal funds.



Funding:

FY08 Appropriation	$1,500,000
Carry Forward June 30, 2007	$2,889,998
Expenditures July 1 to Dec. 31, 2007	$1,603,594
Obligated/encumbered	$2,592,315
Agreements/Contracts to be Signed	$ 194,089
Unobligated January 1, 2008	$ 0.00

For further information, contact:

Jim Gillespie, Chief
Field Services Bureau
Iowa Department of Agriculture and Land Stewardship
515-281-7043
Jim.Gillespie@idals.state.ia.us

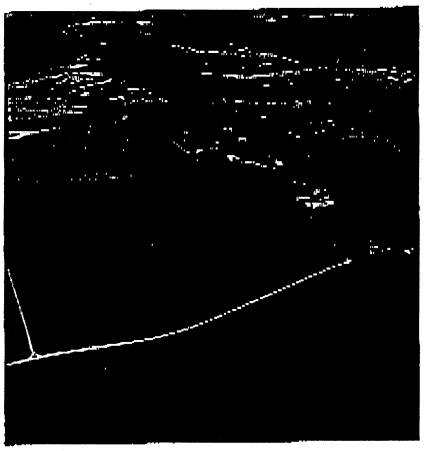
Karey Claghorn, Deputy Secretary of Agriculture
Division of Soil Conservation
Iowa Department of Agriculture and Land Stewardship
515-281-5322
Karey.Claghorn@idals.state.ia.us

12/31/07

Iowa Conservation Cost Share Program (IFIP)

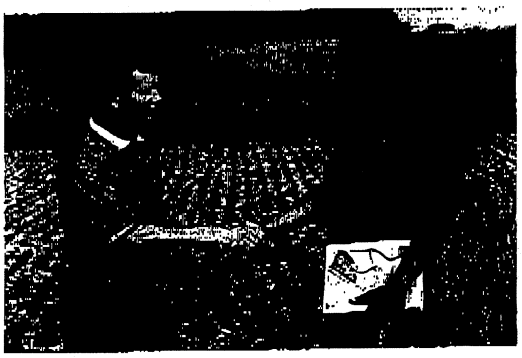
Iowa's Conservation Cost Share program was established in 1973 for the purpose of establishing soil and water conservation practices to reduce erosion and protect productivity on agricultural land. Applicants are required to enter into maintenance agreements to insure long-term success and performance. Funds are administered locally by Iowa's 100 Soil and Water Conservation Districts (SWCD's).

- Since July 1, 2007, the Division has processed 2,498 applications from landowners to protect 23,011 acres.
- Soil loss was reduced by 15,808 tons/year.
- In October 2007, 58 SWCD's made requests for $7,798,917 in supplemental funds with only $2,523,484 available, leaving $5,275,433 of unmet demand.
- Landowners invest 50-75% of their own money on these practices.



Funding:

• FY08 Appropriation	$ 7,000,000
• Carry Forward June 30, 2007	$ 4,432,733
• Expenditures July 1 to Dec. 31, 2007	$ 2,716,354
• Obligated/Encumbered	$ 8,716,379
• Unobligated January 1, 2008	$ 0.00



Landowner demand exceeds the amount of cost share by over $5 million for conservation work that is matched by the landowner.

For further information, contact:

Jim Gillespie, Chief
Field Services Bureau
Iowa Department of Agriculture and Land Stewardship
515-281-7043
Jim.Gillespie@idals.state.ia.us

Karey Claghorn, Deputy Secretary of Agriculture
Division of Soil Conservation
Iowa Department of Agriculture and Land Stewardship
515-281-5322
karey.claghorn@idals.state.ia.us

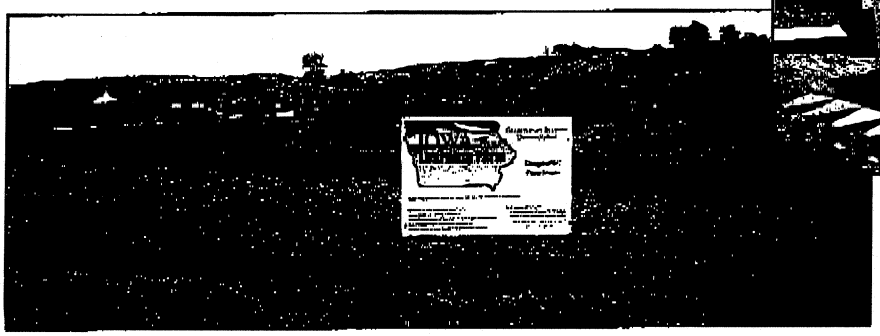
12/31/07

Farm Management Demonstrations (ILF & IFLM)
Integrated Farm and Livestock Management
Iowa Learning Farm

The Integrated Farm and Livestock Management demonstration program was initiated in 2000 as part of the Iowa Water Quality Initiative to demonstrate that conservation systems are adaptable to farming operations and effective in reducing nutrient and sediment loading into Iowa's water bodies. New and emerging technologies are demonstrated on private farmland to refine management input to reduce soil losses, maximize residue cover for erosion protection and potential use for bio-energy production, enhance soil quality, and reduce nutrient and sediment loading to Iowa's rivers, lakes, and streams. Resources and infrastructure are leveraged to provide effective delivery for emerging technologies and other important issues such as row crop residue harvest for biofuels, cover crops and perennial living mulch, and nutrient transport from cropped landscapes

- **Iowa Learning Farm, conducted by Iowa State University, is building a "Culture of Conservation"** through a unique partnership of farmers, agencies, conservation groups, agribusiness, the research community, and the public that supports continuing change for improved water and soil quality in Iowa and the nation.
  - Improved tillage and residue management field demonstrations with 30 cooperators in Iowa's 5 major soil associations allowed farmers to evaluate agronomic and economic information and share local wisdom.
  - Water quality modeling has been coordinated on 5 of the cooperator farms to estimate pollutant load reductions.
  - A strong statewide awareness campaign utilizing a farmer-to-farmer, Iowan-to-Iowan grassroots approach included public events in 33 counties in 2007.
  - Education and outreach to nearly 5,300 individuals last year strengthened society's commitment to the conservation of natural resources to sustain our standard of living and quality of life.
- **Iowa Soybean Association's agriculture and environment performance program** was allocated $400,000 by legislative earmark in 2008.

Funding:		
	FY08 Appropriation	$ 850,000
	• Fund Balance 7/1/07	$ 1,252,040
	• Expenditures to Date	$ 603,949
	• IDNR & NRCS Contribution	$ 148,000
	• Obligated/Encumbered	$ 775,689
	• Unobligated	$ 71

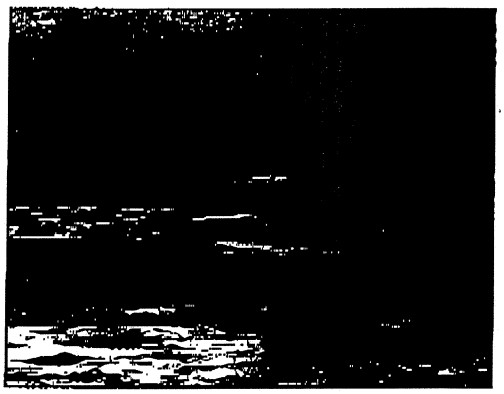


For more information, contact:

Dean Lemke, Chief, Water Resources Bureau
Division of Soil Conservation
Iowa Department of Agriculture and Land Stewardship
515-281-3963 or Dean.Lemke@idals.state.ia.us

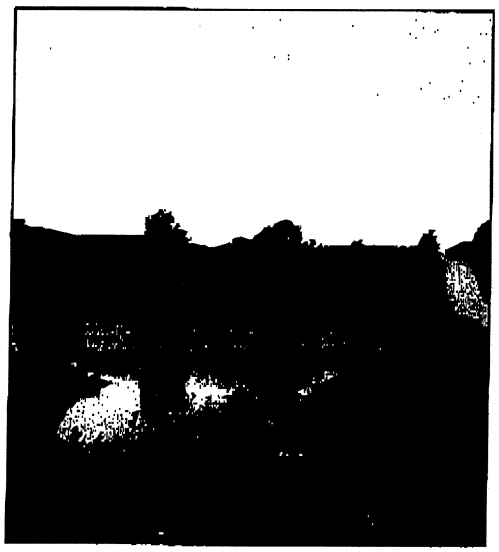
Karey Claghorn, Deputy Secretary of Agriculture
Acting Director, Division of Soil Conservation
Iowa Department of Agriculture and Land Stewardship
515-281-5322 or Karey.Claghorn@idals.state.ia.us

12/31/2007



Watershed Protection Fund (WSPF)

The Watershed Protection Fund was initiated in 2000. Watershed protection projects are established to target resources and to reduce soil erosion, protect water quality, provide flood control, and protect natural resources. Projects provide vital financial assistance for the development of watershed initiatives and water quality improvement measures. Many of these projects are also supported through grants provided by the IDNR Section 319 program. IDALS-DSC and IDNR work together in the support of these projects in order to achieve the maximum watershed improvements and water quality benefits with the funds available to each agency.



- Currently 61 WSPF supported projects in 53 Soil and Water Conservation Districts (SWCDs).
- State funds are cost shared at rates up to 75% with 25% applicant's cost.
- Processed 120 practice claims which have leveraged $678,743.62 from other sources.
- Protected 2,417 acres, with soil loss reduction of 6,715 tons/year.
- Sediment delivery reduction to a water body of 10,375 tons/year
- WSPF supported projects have leveraged approximately $2,500,000.00 in FY2008 IDNR Section 319 program funds

Funding:

• FY08 Appropriation	$2,550,000.00
• Carry Forward June 30, 2007	$3,706,510.06
• Expenditures July 1 to Dec. 31, 2007	$1,159,879.33
• Obligated/Encumbered	$3,881,875.75
• Agreements/Contracts to be Signed	$1,214,754.98
• Unobligated January 1, 2008	$0.00

For further information, contact:

Jim Gillespie, Field Services Bureau Chief
Division of Soil Conservation
Iowa Department of Agriculture and Land Stewardship
515-281-7043
Jim.Gillespie@idals.state.ia.us

Karey Claghorn, Deputy Secretary of Agriculture
Division of Soil Conservation
Iowa Department of Agriculture and Land Stewardship
515-281-5322
Karey.Claghorn@idals.state.ia.us

DEPARTMENT FOR THE BLIND

Appropriation for the four years ending June 30, 2010			4,000,000
Funds already obligated:			
Breiholz contract for work now in progress		4,175,500	
Architectural fees per existing contract with Design Alliance, Inc.		346,563	
Reimbursements to DAS for initial consultations paid in '07		1,811	
Cost of freight elevator failure in 2007 paid from existing approp.		37,440	
Asbestos abatement contract for work in progress (Dec. 2007)		59,000	
Estimates for:			
furniture	163,556		
sidewalk replacement	40,000		
4th floor roof work pursuant to current construction	25,000		
art work required by Code @ .5%	20,878		
total estimates		249,434	
Total expected cost as of 12/31/2007 =			4,869,748
difference			-869,748
Current expected cost of air handlers and temperature control upgrades submitted to vertical infrastructure committee on 4/19/2007 (not funded by committee)			683,500
			-1,553,248

DEPARTMENT OF CORRECTIONS

House File 2782
FY07 Project Status Report
Submitted to the Legislature 1/11/08

From this bill, the Iowa Department of Corrections (DOC) received funding from 4 sources:

Rebuild Iowa Infrastructure Fund (RIIF)
Tobacco Settlement Trust Fund (Tobacco)
Endowment for Iowa's Health Restricted Capital's Fund (Health)
Technology Reinvestment Fund (ROI)

Each project that received funding through these programs for FY 2007 completed the following items. Where applicable, the records for each project were used to complete items from Budget Offer and I/3 budget information.

- Project Name and Description
- All Revenue Sources for Funding
- Agency Submitting Request
- Percent of Completed Work
- Total Estimated Project Cost
- All Revenue Sources for Funding
- Expended Funds
- Obligated Funds
- Estimated Completion Date

These projects are described in Tables A – D below.

DOC collected those data items for all FY 07 projects and sent the completed report to the following parties on January 11, 2008 before the filing deadline of January 15, 2008:

Legislative Services Agency
Department of Management

This table includes RIIF reimbursements processed through DAS Finance, as of August 31, 2007.

Table A: FY 07 RIIF Project Expenditures

Project Name	Agency	% Complete	Original Request	Adjusted Request	Expenditures to-date	Obligated Funds	Estimated Complete Date
Fort Madison Electrical	DOC	86%	$ 333,168	$ 333,168	$ 333,168	$ 333,168 (FY08)	6/30/08
Prison Study	DOC	100%	$ 500,000	$ 500,000	$ 500,000	$ 0	**Complete**
TOTALS			$ 833,168	$ 833,168	$ 833,168	$ 333,168	

FY 07 appropriation within the Rebuild Iowa Infrastructure Fund to the Department of Corrections for infrastructure improvement projects was $833,168.00.

FY 07 RIIF Project Descriptions and Funding Sources

1. Fort Madison Electrical

Funding for the 6th year of the 7 year of the lease payment under the lease-purchase agreement to connect the electrical system supporting the special needs unit to Fort Madison

Funding Sources:

FY 07 funding for this payment was provided entirely by FY 07 RIIF program funds.

2. Prison Study

Funding for the systemic study and planning of the state prison system to maximize the efficient use of the current infrastructure, capacity and treatment needs, versus projected needs of the prison system based on the Iowa prison population forecast.

Funding Sources:

Funded entirely by the FY 07 RIIF program funds.

This table includes Tobacco Settlement Trust Fund reimbursements processed through DAS Finance, as of August 31, 2007.

Table B: FY 07 Tobacco Project Expenditures

Project Name	Agency	% Complete	Original Request	Adjusted Request	Expenditures to-date	Obligated Funds	Estimated Complete Date
Ft. Dodge Construction	DOC	100%	$ 1,400,000	$ 1,400,000	$ 1,400,000	$ 0	6/30/08
Anamosa Kitchen	DOC	100%	$ 1,840,000	$ 1,840,000	$ 1,840,000	$ 0	6/30/08
Oakdale Expansion	DOC	100%	$ 3,376,519	$ 3,376,519	$ 3,376,519	$ 0	6/30/08
TOTALS			$ 6,616,519	$ 6,616,519	$ 6,616,519	$ 0	

FY 07 appropriation within the Tobacco Settlement trust Fund to the Department of Corrections for construction projects was $6,616,519

FY 07 Tobacco Project Descriptions and Funding Sources

1. Ft. Dodge Construction

For cost associated with the construction of a community-based correctional facility, including district office, in Ft. Dodge

Funding Sources:

Of the total funds allocated for Ft. Dodge Constrcution in FY 07, 58% of the funds were from the Tobacco Settlement Trust Fund and 42% of the funds were from other general fund appropriations.

2. Anamosa Kitchen

For cost associated with the remodeling and renovation of the kitchen facilities at the Anamosa State Penitentiary.

Funding Sources:

Of the total funds allocated for Anamosa Kitchen in FY 07, 100% of the funds were from the Tobacco Settlement Trust Fund.

3. Oakdale Expansion

For one time equipment costs and expenses associated with the construction at the Iowa Medical and Classification Center.

Funding Sources:

Of the total funds allocated for Oakdale Expansion in FY 07, 100% of the funds were from the Tobacco Settlement Trust Fund.

This table includes Endowment for Iowa' Health reimbursements processed through DAS Finance, as of August 31, 2007.

Table C: FY 07 Health Project Expenditures

Project Name	Agency	% Complete	Original Request	Adjusted Request	Expenditures to-date	Obligated Funds	Estimated Complete Date
Davenport Construction	DOC	0%	$ 3,750,000	$ 3,750,000	$ 0	$ 3,750,000	6/30/10
Ft. Dodge Construction	DOC	35%	$ 1,000,000	$ 1,000,000	$ 353,519	$ 646,481	6/30/10
6th District Construction	DOC	0%	$ 1,000,000	$ 1,000,000	$ 0	$ 1,000,000	6/30/10
TOTALS			$ 5,750,000	$ 5,750,000	$ 353,519	$ 5,396,481	

FY 07 appropriation within the Endowment for Iowa' Health Restricted Capitals Fund to the Department of Corrections for constrcution projects was $5,750,000

FY 07 Endowment for Iowa' Health Restricted Capitals Project Descriptions and Funding Sources

1. Davenport Constrcution

For cost associated with the construction of a community-based correctional facility, including district office, in Davenport

Funding Sources:

Of the total funds allocated for Davenport Construction in FY 07, 100% of the funds were from the Endowment for Iowa' Health Restricted Capitals Fund.

2. Ft. Dodge Constrcution

For cost associated with the construction of a community-based correctional facility, including district office, in Fort Dodge

Funding Sources:

Of the total funds allocated for Ft. Dodge Construction in FY 07, 42% of the funds were from the Endowment for Iowa' Health Restricted Capitals Fund and 58% of the funds were from other general fund appropriations.

3. 6th District Constrcution

For cost associated with the design and construction of a 20-bed residential facility for offenders under the supervision of the district department who have mental health or dual diagnosis needs.

Funding Sources:

Of the total funds allocated for 6th District Construction in FY 07, 100% of the funds were from the Endowment for Iowa' Health Restricted Capitals Fund.

This table includes ROI reimbursements processed through DAS Finance, as of August 31, 2007.

Table D: FY 07 ROI Project Expenditures

Project Name	Agency	% Complete	Original Request	Adjusted Request	Expenditures to-date	Obligated Funds	Estimated Complete Date
ICON	DOC	100%	$ 500,000	$ 500,000	$ 500,000	$ 0	6/30/08
TOTALS			$ 500,000	$ 500,000	$ 500,000	$ 0	

FY 07 appropriation within the Technology Reinvestment Fund to the Department of Corrections for technology improvement projects was $500,000

FY 07 ROI Project Descriptions and Funding Sources

1. ICON

The ICON system is the offender management system of the Iowa Department of Corrections. The project funded with this request will be to enhance the ICON system so that it expands its ability to share data with all of the criminal justice agencies in Iowa as required by an agreement between the Governor and the Chief Judge.

Funding Sources:

Of the total funds allocated for ICON in FY 07, 43% of the funds were from the ROI program and 57% were from other general fund appropriations.

DEPARTMENT OF CULTURAL AFFAIRS

Projects Funded by Great Places Grants

2006-2007 Great Places

January 2008

This document describes projects from the 2006-2007 Great Places that received an Iowa Great Places grant. $2,986,600 of the $3,000,0000 Rebuild Iowa Infrastructure Fund appropriation has been allocated among these Great Places. The allocations were based on a competitive grant round decided by a three Iowa Great Places Citizen Advisory Board members and three State employees (one each from the Iowa Department of Economic Development, Iowa Department of Transportation, and Iowa Governor's Office) in June 2007.

The information below includes the project title, a short description of the project activities, progress to date, project completion date, total project costs, and the Great Places grant amount.

Adams County

Lake Icaria Improvements

The Adams County Conservation Board proposes the following improvements at Lake Icaria: construction of 6 cabins, 19 current electric sites will be updated to full-service, 13 campsites will be updated to electric sites, the tent area will be reconstructed for approximately 25 sites, add a camper dump-station, construct 2 user-friendly check-in stations at each campground, and remodel 7 restrooms, including the conversion of pit toilets to flush-type restrooms.

Progress of Work Completed:
Removal of trees needed for dirt work on cabin sites and leach field has been completed. Archaeology work has been completed and approved by the DNR and Iowa Historical Society. Preliminary dirt work has been completed on the new electric, cabin, and tent sites and dump station. Bid specifications have been approved for the cabins and notice of hearing and letting published. Bids were accepted for check-in stations and pit toilet conversion/dump station, leach field. Old check-in stations were removed and concrete poured for the new ones.

List of All Revenue Sources Funding the Project:

- Iowa Great Places – Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund
- Iowa Department of Economic Development, Community Attraction and Tourism Grant

- Iowa West Foundation
- LAWCON
- Adams County Community Foundation
- Adams County Conservation Foundation
- City of Corning
- Corning Municipal Utilities
- Southern Iowa REC
- Private Donations

Total Cost of Project: $415,532.00
Great Places Grant: $150,000.00
Estimated Completion Date: June 2009

French Icarian Colony Restoration & Continued Development
This phase of the French Icarian Colony project includes: replication and installation of the basement windows of the refectory; installation of a geothermal heating and cooling system for the site, as well as the hook-up of the refectory and schoolhouse; and production of archeological survey of the remaining 20 acres of the site.

Progress of Work Completed:
Replication of the basement windows has begun. Other work will begin in spring 2008.

List of All Revenue Sources Funding the Project:
- Iowa Great Places – Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund
- Iowa Department of Cultural Affairs, Historic Resource Development Program Grant
- Iowa Department of Cultural Affairs, Special Operating Support Grant
- Adams County Board of Supervisors
- City of Corning
- Private donors

Total Cost of Project: $107,800.00
Great Places Grant: $97,600.00
Estimated Completion Date: December 2008

Corning Opera House Restoration
The Corning Opera House is being restored to its original grandeur. Great Places funds are assisting this project by installing an ADA compliant, in-ground, single jack elevator with a 2,500 pound capacity. The three stop elevator will be installed inside a masonry block shaft and placed adjacent to a 7'x7' mechanical room. This must be completed before permanent walls and the balcony floor are reconstructed.

Progress of Work Completed:
Installation to commence in spring 2008.

List of All Revenue Sources Funding the Project:

- Iowa Great Places – Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund
- Iowa Department of Cultural Affairs, Historic Site Preservation Grant
- Adams County Board of Supervisors
- City of Corning
- Private donors

Total Cost of Project: $130,000.00
Great Places Grant: $115,000.00
Estimated Completion Date: August 2008

Johnny Carson Birthplace Phase I
The Johnny Carson Birthplace Society's mission is to preserve and promote the legacy of Johnny Carson, a native of Corning, through the rehabilitation of his boyhood home. With these Great Places funds, the Society has stabilized the foundation of the home and updated the plumbing.

Progress of Work Completed:
Foundation work has been completed. Plumbing work to commence in spring 2008.

List of All Revenue Sources Funding the Project:

- Iowa Great Places – Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund
- Adams County Board of Supervisors
- Adams Community Foundation
- City of Corning
- Private donors

Total Cost of Project: $65,149.00
Great Places Grant: $28,000.00
Estimated Completion Date: June 2008

Dubuque

America's River Phase II
This project will expand the Mississippi River Museum campus with Rivers of America Museum, a large screen theater, children's museum, science center, eco-tours, water taxis, and Great Rivers Interpretive and Research Center. Additionally, the Dubuque Great Places Committee seeks to restore the Shot Tower, utilize the Star Brewery, and introduce canals and boardwalks with restaurants, shops, and recreational activities. Great Places funds are being used to expand the Mississippi River Museum.

Progress of Work Completed:
Construction to replace roof and demolition of exterior walls has commenced.

List of All Revenue Sources Funding the Project:

- Iowa Great Places – Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund
- US Department of Transportation National Scenic Byways Program
- US Save America's Treasures Program
- Iowa Department of Cultural Affairs, Iowa Historic Site Preservation Grant
- Iowa Department of Economic Development, Vision Iowa Program
- Diamond Jo Casino
- Tourism Cares for Tomorrow
- National Oceanic and Atmospheric Association
- Environmental Protection Agency

Total Cost of Project: $6,745,000.00
Great Places Grant: $250,000.00
Estimated Completion Date: June 2009

Dubuque Carnegie-Stout Public Library Renovation

This project will expand Dubuque's library services by renovating the historic portion of the Carnegie-Stout Library, offering naturally lit reading areas with a coffee bar and by creating space to expand the existing collection, increase computer/Internet resources, and deepen the community's commitment to literacy for people of all ages. Specifically, Great Places funding will be used for restoration of the glass floor mezzanine and skylight.

Progress of Work Completed:
Initial restoration work has commenced.

List of All Revenue Sources Funding the Project:

- Iowa Great Places – Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund
- Lacy Trust
- City of Dubuque
- Library Board of Trustee Pledges
- Private Donations

Total Cost of Project: $25,791,392.00
Great Places Grant: $250,000.00
Estimated Completion Date: October 2008

Bi-lingual Curriculum and Integrated Bi-lingual Bike & Hike Trail Signage

This project proposes to partner with local teachers, parents, and university faculty to develop, establish, and integrate an education curriculum of foreign language from early childhood through high school. This project will encourage every child in Dubuque to speak two languages upon high school and better prepare the City's future workforce and attract businesses to the area. This project will also create an integrated bike/hike trail system throughout Dubuque to encourage recreation and wellness. The project will connect the Port of Dubuque Riverwalk Heritage Trail and Mines of Spain State Recreation Area. On-street routes will be marked with

trailblazer signs in English and Spanish, as well as striped bike lanes where appropriate to provide safe and ready access from neighborhoods to off-road trails, transit stops, schools and parks where restroom benches and bike racks will be available. The project will include kiosk-style system maps at trail heads and interpretive signs at points of interest. Great Places funding is applied to trail construction.

Progress of Work Completed:
Project is in design phase. Construction to commence summer 2008.

List of All Revenue Sources Funding the Project:

- Iowa Great Places – Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund
- City of Dubuque

Total Cost of Project: $84,074.00
Great Places Grant: $34,000.00
Estimated Completion Date: November 2008

Fairfield

Downtown Streetscape
This project redesigns the walkways of downtown Fairfield, extending 3 blocks north from the town square, and provides the aesthetic elements as well as practical pedestrian enhancements necessary to accommodate residents and visitors to the downtown. It provides a unified design for pedestrian sidewalk nodes, lighting, landscaping, and benches that will substantially improve pedestrian access and safety, while contributing to a beautiful aesthetic experience for visitors and residents. The Great Places phase of this project focuses on the area around the new Fairfield Arts and Convention Center.

Progress of Work Completed:
Parking lots and plantings have been completed and are open. Work has begun on the east/west alleys, as well as the crosswalks and corner nodes on Briggs Street.

List of All Revenue Sources Funding the Project:

- Iowa Great Places – Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund
- Iowa Department of Transportation, Transportation Enhancement Grant
- City of Fairfield
- Keep Iowa Beautiful
- Private Donations

Total Cost of Project: $561,236.00
Great Places Grant: $200,000.00
Estimated Completion Date: July 2008

Fairfield Loop Trail
This project will build a 3-mile segment of a planned 17-mile Loop Trail surrounding the City of Fairfield. The trail meets AASHTO guidelines and is 10 feet wide. The trail system will also integrate public art.

Progress of Work Completed:
Engineering and design work is being completed. Construction to begin summer 2008.

List of All Revenue Sources Funding the Project:
- Iowa Great Places – Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund
- Iowa Department of Transportation, Transportation Enhancement Grant
- City of Fairfield
- Jefferson County Trails
- National Endowment for the Arts

Total Cost of Project: $300,000.00
Great Places Grant: $50,000.00
Estimated Completion Date: November 2008

Fairfield Bikeway/Walkway
This project will construct a network of usable street and sidewalk routes, based on a plan developed by five graduate students in the University of Iowa's College of Urban Planning, that will encourage local citizens to get outside and exercise. The plan is also devised to encourage children to walk and ride their bikes to school. Additionally, the network of routes acts as spokes connecting all areas of the community to the Fairfield Loop Trail.

Progress of Work Completed:
Engineering and design work is being completed. Construction to begin summer 2008.

List of All Revenue Sources Funding the Project:
- Iowa Great Places – Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund
- Federal Safe Routes to School Program
- City of Fairfield

Total Cost of Project: $166,734.00
Great Places Grant: $25,000.00
Estimated Completion Date: November 2008

Maasdam Barns
The three Maasdam Barns are being restored and developed as a tourist, recreational, and educational center in conjunction with a major highway improvement between Des Moines and Burlington. The barns will showcase preindustrial revolution agriculture, when the "horse was king." The associated farmstead will showcase the achievements of the Louden and Turney companies, the largest manufacturers of that era in Fairfield, and important national contributors to preindustrial and industrial agriculture. This project focuses on moving a house and garage to

the farmstead, which will serve as a Welcome Center for the Maasdam Barns, residence for the caretakers, and entry point into Fairfield and Jefferson County.

Progress of Work Completed:
Acquisition of the property will occur by May 2008, after which, construction will commence.

List of All Revenue Sources Funding the Project:

- Iowa Great Places – Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund
- Iowa Department of Cultural Affairs, Historic Resource Development Program Grant
- Jefferson County Board of Supervisors
- City of Fairfield
- Private Donations

Total Cost of Project: $44,243.00
Great Places Grant: $31,143.00
Estimated Completion Date: November 2008

Vedic Observatory
A local developer within Maharishi Vedic City created a unique park and observatory that has become a popular tourist location. The observatory contains 10 large sculptures, which are replicas of ancient sundials. He donated this project, including the land under it, to the city. Plans include adding sidewalks, signage, a fence, lighting, landscaping, decorative benches, parking facilities, and will repair the surface to observatory structures that have suffered weathering.

Progress of Work Completed:
Construction to commence in March 2008.

List of All Revenue Sources Funding the Project:

- Iowa Great Places – Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund
- City of Maharishi-Vedic City
- Private Donations

Total Cost of Project: $294,900.00
Great Places Grant: $16,500.00
Estimated Completion Date: November 2008

Sustainable Learning Center
This project is the first step in the multi-phased development of a Sustainable Learning and Visitors' Center. This project will acquire 12 acres of land adjacent to Abundance Ecovillage to provide a parking lot, a visitors' kiosk, dormitories, agricultural demonstration projects and space for a large future center. A self-guided tour trail will connect the kiosk to alternative energy and water installations located in the adjoining Ecovillage. This project provides the

foundation for construction of an indoor center for visitors, classroom space, and dining facilities in a future second phase and for a larger complex in phase three.

Progress of Work Completed:
Construction plans are to be completed and bids let in January 2008. Construction to begin in late February 2008.

List of All Revenue Sources Funding the Project:

- Iowa Great Places – Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund
- Sustainable Living Coalition
- Abundance Ecovillage Corporation
- Iowa State University, Community Vitality Center
- Iowa Natural Heritage Foundation
- Grinnell College
- Arcadia Fund
- Agrestal Fund
- Private Donations

Total Cost of Project: $172,825.00
Great Places Grant: $106,625.00
Estimated Completion Date: November 2008

Guttenberg

Riverfront Development
Guttenberg is ready to implement and complete riverfront developments, including construction of the new downtown marina, a shoreline trail, and seven educational kiosks, in 2007. Development of the riverfront will enhance the seven dynamics of Guttenberg and elevate the river community to a point of greatness by creating an 'exit' from the Mississippi River for the thousands of mariners that currently bypass the historic downtown because there is no downtown marina. It will also provide a dynamic new point of entry for residents and visitors wanting to access the Mississippi River or the Upper Mississippi River Fish and Wildlife Refuge from the Great River Road or the Mississippi River Trail. The increased movement of people from and to land and the river will generate a synergy in the historic downtown business district, creating new and expanding business opportunities. Great Places funding completes work on the Guttenberg Marina. Tasks include site preparation, dredging, shore stabilization, wetland mitigation and mussel relocation, and installation of a perimeter ice protection system.

Progress of Work Completed:
Permitting is complete. Construction to begin in March 2008.

List of All Revenue Sources Funding the Project:

- Iowa Great Places – Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund

- Iowa Department of Economic Development, Community Attraction and Tourism Grant
- Iowa Department of Economic Development, Community Development Fund
- City of Guttenberg
- Federal National Scenic Byways Grant
- Federal Boating Infrastructure Grant
- Clayton County
- Private Donations

Total Cost of Project: $3,029,082.00
Great Places Grant: $528,000.00
Estimated Completion Date: March 2009

Jackson County

Bellevue Walkways for Life
This project combines two Great Places projects: the Mill Creek Trail and the Bellevue Downtown Sidewalk project. The Downtown Sidewalk will connect the north and south ends of the current walkway by bringing the same streetscape theme and handicapped accessibility to the downtown business district. These improvements will correct safety issues and maintain the historic ambiance of the area. The Mill Creek Trail portion will extend the walkway system from the south end of Bellevue westward along Mill Creek.

Progress of Work Completed:
Bid work to out in February 2008 with construction to begin in March 2008.

List of All Revenue Sources Funding the Project:
- Iowa Great Places – Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund
- Iowa Department of Economic Development, Community Attraction and Tourism Grant
- City of Bellevue GO Bonds
- Jackson County Board of Supervisors
- Business Donations
- Private Donations

Total Cost of Project: $606,292.00
Great Places Grant: $179,566.00
Estimated Completion Date: July 2008

Maquoketa River Water Trail
This project concerns the enhancement of the existing Maquoketa River Water Trail and will include designation of the Maquoketa River as an Iowa Water Trail with standardized signage and information kiosks. The project will also incorporate the acquisition of an access site on the Western edge of Jackson County in the town of Canton. This access point will provide a site for public access, a primitive campground, and canoe livery. This project will also include the

addition of two access locations and rehabilitation of the existing access points along the river system.

Progress of Work Completed:
Design work is being finalized. Designation as an Iowa Water Trail has been achieved.

List of All Revenue Sources Funding the Project:

- Iowa Great Places – Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund
- Iowa Department of Natural Resources, Water Trails Program
- Iowa Department of Natural Resources, Fish Habitat Program
- Iowa Department of Natural Resources, Water Trails Program
- Jackson County

Total Cost of Project: $89,738.00
Great Places Grant: $35,970.00
Estimated Completion Date: December 2008

Great Places Bike Trail
This project includes the development of the first two segments of the bike trail. The first segment will be a 1.4 mile should enhancement on county road 63rd St. located one mile north of Maquoketa. This project is also the first segment of a planned trail system to connect the city of Maquoketa to the Maquoketa Caves State Park. The second segment will include the construction of a 1.9 mile off-road trail connecting the existing four-mile Jackson County Recreation Trail with the one mile Cooper Creek Trail in Preston. This segment is also part of the long range plan for Jackson County.

Progress of Work Completed:
Design work is being finalized. Construction to begin summer 2008.

List of All Revenue Sources Funding the Project:

- Iowa Great Places – Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund
- Jackson County

Total Cost of Project: $618,899.00
Great Places Grant: $127,399.00
Estimated Completion Date: June 2009

Clinton Engines Museum
This project is an effort to create a museum highlighting what was once the world's largest producer of Clinton Engines – the Clinton Engines Administration Building and to depict the development of business and industry in the Upper Midwest. The Administration is Building is on the National Registry of Historic Places. Phase I of the project, which is complete, includes activities such as constructing a new roof, rehabilitation of windows and doors, tuck pointing,

and landscaping. Phase II involves installing insulation; updating bathrooms; installing new HVAC system, electric lines, and lighting; and installing new wall treatments and floors.

Progress of Work Completed:
All telephone and computer wiring and HVAC installed. Upper level has been insulated. The vintage value has been reconditioned and painted. Draft exhibit designs have been approved. Upper floors will be ready for exhibits in late January 2008 and open to the public in March 2008.

List of All Revenue Sources Funding the Project:

- Iowa Great Places – Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund
- Iowa Department of Cultural Affairs, Iowa Community Cultural Grant
- Iowa Department of Cultural Affairs, Historic Resource Development Program Grant
- Iowa Department of Cultural Affairs, Historic Site Preservation Grant
- Jackson County Historical Society
- Maquoketa Area Foundation
- Maquoketa Historic Foundation
- Private Donations

Total Cost of Project: $604,041.00
Great Places Grant: $43,247.81
Amount of Funds Obligated: $125,000.00
Estimated Completion Date: March 2008

Insane Asylum at Jackson County Farm
The Jackson County Insane Asylum was located at the original Jackson County Farm. Built in 1870, it is significant in its ability to demonstrate the kind of treatment given to people with mental illness in the not too distant past. The cages and shackles are a vivid illustration of such methods. This project will rehabilitate the Jackson County Insane Asylum. These activities will preserve this excellent example of 19th century mental health treatment and preserve an historically significant building.

Progress of Work Completed:
Contractor has replaced cornices and cornice returns, as well as the chimneys. Roof work has been completed. Measurements have taken and preliminary order for the windows submitted.

List of All Revenue Sources Funding the Project:

- Iowa Great Places – Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund
- Jackson County Board of Supervisors
- Jackson County Economic Development Commission
- Iowa Department of Cultural Affairs, Historic Resource Development Program Grant

Total Cost of Project: $63,207.00
Great Places Grant: $45,017.00

Estimated Completion Date: June 2008

Mason City

Park Inn Hotel and City National Bank Building
The Park Inn Hotel and City National Bank Building were designed by Frank Lloyd Wright and built in 1910. The two structures were divided in 1921. Because of its international significance as the only remaining hotel designed by Wright, the two building offer a unique opportunity to present Mason City to the world. This project will help acquire the City National Bank Building and its associated art-glass windows in an effort to reunite these two structures. Restoration will then continue on both structures, with the goal of re-opening the two buildings as a hotel and conference center in 2010, 100 years after the original opening.

Progress of Work Completed:
The City National Bank Building and associated art-glass windows have been purchased. Rehabilitation is in process.

List of All Revenue Sources Funding the Project:
- Iowa Great Places – Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund
- Elizabeth Muse Norris Charitable Foundation
- Farrer Charitable Foundation
- Iowa Legislative Infrastructure Allocation
- Cerro Gordo County Community Foundation
- Private Donations

Total Cost of Project: $18,127,375.00
Great Places Grant: $500,000.00
Completion Date: 2010 (GP grant work completed September 2007)

Wayfinding Signage for the Cultural Crescent
The comprehensive wayfinding project for the Downtown District will aid visitors to Mason City. Phase I is concerned with developing a community/downtown system for pedestrians and drivers, including signage, maps, and information kiosks. Phase II targets the cultural amenities within the city, such as Music Man Square, Park Inn, and MacNider Art Museum.

Progress of Work Completed:
Color and design work has been finalized and full-sized sample design was created for public viewing. Working with IDOT on sign siting.

List of All Revenue Sources Funding the Project:
- Iowa Great Places – Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund
- City of Mason City
- Mason City Chamber of Commerce

- Kinney-Lindstrom Foundation
- Private Donations

Total Cost of Project: $56,500.00
Great Places Grant: $25,000.00
Estimated Completion Date: June 2008

Mason City Architectural Interpretive Center
This project involves building an interpretive center adjacent to the Stockman House Museum. It will present illustrations and displays of prominent architectural styles and design elements to be seen in Mason City, with an emphasis on the city's significant and unique Prairie School designs, as well as artifacts of the Stockman House. The center will house a gallery space, a reception area, a 40-seat presentation theater, a sales shop, and public restrooms.

Progress of Work Completed:
Project is in the final design stage.

List of All Revenue Sources Funding the Project:
- Iowa Great Places – Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund
- River City Society for Historic Preservation
- Private Donations

Total Cost of Project: $632,372.00
Great Places Grant: $66,780.00
Estimated Completion Date: May 2009

2007 YEAR END REPORT AND BATTLE FLAG ACTIVITIES

Number Of Flags In Collection – 321

Battle Flag Activity	Number / Description
Battle Flags added to Collection	2007: 13
Battle Flags Stabilized:	2007: 8 TOTAL: 182
Battle flags Conserved:	2007: 2 TOTAL: 11
Battle Flags Displayed – Capitol	2007: 4
Battle Flags Displayed – Historical Building	2007: 10
Tours	Total number: 52 Attendees: 476
Talks	Total number: 20 Attendees: 678
Request for Images	2007: 66
Media--5 (TV)	Two interviews and three filming of lab, framing of the 9th and flags.
Publications--2	Iowa Heritage and Mid-West Registrar's Newsletter
Newspaper--6	Des Moines Register, Burlington paper, Anamosa paper
Radio--3	3 radio interviews given regarding the flags and rotations.
General Information—146	Inquiries and questions
Professional Outreach/Consultations	Minnesota Historical Society, Nacional Gold Museum--Columbia, Keokuk Historical Society, Des Moines County Historical Society--Burlington, Gold Star Museum--Johnston, Museum Historico Nacional--Argentina [conducted via phone, on-site, or by e-mail].
Educational Outreach	Interactive website with downloadable forms and lesson plans, new Powerpoint program, publication of unit histories (associated with flags on display]), speaking with school groups on Thursdays at the Captiol (9:00 to 10:00)
Private Donations--$1,737.40	2007: $1,737.40 (This includes two Memorial funds)
Adopt-a-Flag	2007: 4 – 2 inquiries and 1 for $200.00 and a second for $500.00
Researcher Visits	5 academic researchers visited (Georgia, Tennessee, South Carolina, Oregon, Wisconsin) 29 non-academic (primarily Iowa)
Iowa Preservation Center activity	1. evaluation of family flag 2. Evaluation of flag for possible IPC work and grant assistance 3. Anamosa Flag (waiting for plexiglass) contacts informed 4. Anamosa Flag, Progress Report and new images

	5. Discussion regarding the discovery of tape on a Burlington Civil War Flag.
Kiosk Reservations	**Clarinda, Shenandoah, Des Moines, Keokuck, Burlington, Fairmont (MN), Decorah, Council Bluffs, Spencer, Iowa City, Lamoni, Ames**
Loan Negotiations—1	**Mike Rogers and Hugh Tant III of the South Carolina Citadel: Big Red**
Site Evaluations—4	**1. South Carolina Citadel (possible loan)** **2. Olin, Iowa (evaluation of G.A.R. Flag)** **3. Burlington (evaluation and assistance with preparing Iowa Civil War flags for temp storage)** **4. Keokuk (evaluation of Civil War Iowa Cavalry Flag)**

HSPG FY08 Review Panel
Final Rankings and Recommendations

Rank	Grant #	Applicant--Project Title	Grant Request	Project Total	Amount Funded	Notes
		Wright on the Park, Inc., Mason City, Iowa – directed Grant for preservation of the Park Inn	$200,000		$200,000	Directed Grant
1	HS08-013	Corning Opera House Cultural Center – Corning Opera House Rehabilitation: Phase 3	$98,000	$225,000	$98,000	Fully Fund
2	HS08-009	German American Heritage Center – Rehabilitation of the German American Heritage Center	$100,000	$570,000	$100,000	Fully Fund
3	HS08-006	Edmundson Art Foundation, Inc. – Des Moines Art Center Accessibility Improvement Project	$100,000	$535,240	$100,000	Fully Fund
4	HS08-017	Knoxville Alumni Association-SOS Committee – Knoxville WPA Athletic Field Rehabilitation	$100,000	$200,004	$100,000	Fully Fund
5	HS08-014	Jackson County Historical Society – The Clinton Engines Museum Project: Phase III	$71,004	$142,008	$71,004	Fully Fund
6	HS08-002	St. Luke's United Methodist Church – St. Luke's United Methodist Church: Restoration of Sanctuary	$45,724	$91,448	$45,724	Fully Fund
7	HS08-003	Big Creek Historical Society – Big Creek Historical Society: Stairway to Yesteryear	$83,269	$166,538	$83,269	Fully Fund
8	HS08-016	City of Ames – City of Ames: Exterior Door Replacement and Rehabilitation for City Hall / Community Center	$100,000	$236,775	$100,000	Fully Fund
9	HS08-012	Grant Community Preservationists – Grant Masonic Lodge Building	$86,600	$173,200	$86,600	Fully Fund, if funds are available
10	HS08-001	Dallas County Conservation Board – William J. Wagner Exhibit Hall	$79,200	$158,400	$0	Alternate – fund this project if one of the higher-ranked projects is not able to proceed.
11	HS08-011	City of Red Oak / Red Oak Public Library – Red Oak Library Renovation and Expansion	$100,000	$1,961,000	$0	Alternate – fund this project if one of the higher-ranked projects is not able to proceed.

12	HS08-004	Jefferson County – Maasdam Barns Development Project	$125,000	$375,000	$0	No funding – The amount requested exceeds the maximum allowable grant request
13	HS08-018	Cattermole Cultural Center Commission – Rehabilitation of the Cattermole Memorial Building	$99,333	$198,666	$0	No funding
14	HS08-015	Family Resources, Inc. – Iowa Soldiers' Orphans' Home Window Sash Replacement	$100,000	$232,748	$0	No funding
15	HS08-005	Save Our Depot, Inc. / Depot Hill Historic District LLD – T.D. Murphy Calendar Museum Archival and Academic Center	$97,000	$200,000	$0	No funding
16	HS08-008	St. Paul's United Methodist Church – St. Paul's United Methodist Church: Tuck Pointing Project	$100,000	$390,000	$0	No funding
17	HS08-019	River City Society for Historic Preservation – Prairie School Architectural Interpretive Center	$100,000	$642,372	$0	No funding
18	HS08-007	Appanoose County Coalition for the Arts – Ritz Theatre: Lower Façade Renovation	$136,000	$272,000	$0	No funding – The amount requested exceeds the maximum allowable grant request
19	HS08-020	Downtown Partners Sioux City – Badgerow Building Window Renovation	$100,000	$450,000	$0	No funding

DEPARTMENT OF ECONOMIC DEVELOPMENT

To: Members – Transportation, Infrastructure, and Capitals Appropriations Subcommittee
Members – Capital Projects Committee of the Legislative Council
Director – Legislative Services Agency
Director – Department of Management

From: Diane Foss, Department of Economic Development Legislative Liaison

Subject: Annual Report – Infrastructure Appropriations Act

Date: December 31, 2007

Attached please find the Department of Economic Development's status report on appropriations received in FY06 and FY07. These appropriations were received from a variety of sources including:

- Rebuild Iowa Infrastructure Fund
- Environment First Fund
- Vertical Infrastructure Fund
- Restricted Capitals Fund of the Tobacco Settlement Trust Fund
- Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund.

The report outlines the awards made and progress on each of the appropriations from these funds. Should you have any questions, please do not hesitate to contact me at 242-4777.

Thank You.

IOWA DEPARTMENT OF ECONOMIC DEVELOPMENT
INFRASTRUCTURE REPORT FY06 APPROPRIATIONS
DECEMBER 2007

Appropriation Name: **Regional FerryBoat Study**

Appropriated Amount:	60,000
Obligated Amount:	60,000
Expended Amount:	30,000

Awarded to Louisa County for costs associated with an environmental assessment and cultural/historical impacts related to the establishement of a regional ferryboat service between Iowa and Illinois.

Appropriation Name: **Special Olympics**

Appropriated Amount:	500,000
Obligated Amount:	500,000
Expended Amount:	500,000

Funds awarded to the City of Ames and the Ames Convention and Visitors Bureau for costs associated with hosting the National Special Olympics during 2006.

Appropriation Name: **Federal Enterprise Zone**

Appropriated Amount:	500,000
Obligated Amount:	500,000
Expended Amount:	188,000

Award made to the City of Sioux City for assistance in the KD Station demolition project.

Appropriation Name: **Accelerated Career Education Infrastructure**

Appropriated Amount:	5,500,000
Obligated Amount:	5,500,000
Expended Amount:	2,382,273

Community College	Award Amount	Expended Amount	
NEICC	366,666	366,666	Construct new building for Gas Utility Technology Program.
ILCC	366,666	216,723	Remodel and expand nursing and science laboratory space.
NWCC	422,221	0	Expand current health care building for classroom and lab space.
ICCC	180,000	0	Remodel and add to existing Maintenance Electrician space.
IVCC	366,666	0	Build biotechnology laboratory.
HCC	422,221	0	Renovation of 5th floor Cedar Valley Tech Exploring Careers Cluster.
KCC	366,666	0	Remodel of Lin Hall to support new Healthcare Simulation Tech Ctr.
DMACC	422,221	422,221	Renovate building at Newton campus for additional Healthcare students.
WIT	366,666	0	Remodel and expand their Mechanical Technologies Center.

IWCC	366,666	0	Construct facility for Advanced Placement AA Degree for Nursing.
SWCC	422,221	422,221	Construct/renovate Health and Science Center for nursing.
IHCC	422,221	422,221	Construct facility in Ottumwa to accomadate expanded nursing program.
SECC	422,221	422,221	New Constructional Trades Building.
EICC	366,666	0	Build a new welding lab and remodel existing lab in to classroom space.
ICCC	220,000	110,000	Remodel existing building for Transportation Technology Program.
Subtotal	5,499,988	2,382,273	

Appropriation Name: **Community Attraction & Tourism Development**

Appropriated Amount:	5,000,000
Obligated Amount:	5,000,000
Expended Amount:	1,830,423

Grantee	Award Amount	Expended Amt.	
City of Storm Lake	250,000	250,000	Construction of an indoor/outdoor water park hotel and convention center.
City of Bettendorf	3,000,000	0	Build a convention facility on the river.
City of Maquoketa	490,345	344,570	Funds for a new recreation center.
City of North Liberty	750,000	726,198	Trail development around existing waterway, pedestrian bridges, waterfall, fountains, lighting and benches.
Oelwein	509,655	509,655	New library and downtown streetscaping.
Subtotal	5,000,000	1,830,423	

Appropriation Name: **Brownfield Redevelopment Program**

Appropriated Amount:	500,000
Obligated Amount:	491,000
Expended Amount:	250,000

Recipient	Award Amount	Expended Amt
City of Corning	16,000	0
City of Council Bluffs	75,000	0
City of Marion	150,000	0
Nestle Purina	250,000	250,000
Subtotal	491,000	250,000

IOWA DEPARTMENT OF ECONOMIC DEVELOPMENT
INFRASTRUCTURE REPORT FY07 APPROPRIATIONS
DECEMBER 2007

Appropriation Name: **Intermodal Study**

Appropriated Amount:	80,000
Obligated Amount:	80,000
Expended Amount:	0

For costs associated with the enhancement and promotion of transportation or economic development within the jurisdiction of a port authority. (SE Iowa Regional Economic & Port Authority).

Appropriation Name: **Accelerated Career Education Infrastructure**

Appropriated Amount:	5,500,000
Obligated Amount:	5,500,000
Expended Amount:	366,666

Community College	Award Amount	Expended Amount	
NEICC	366,666	0	New building for Gas Utility Technology Program.
ILCC	366,666	0	Construction project for new Wind Energy & Turbine Program.
NWCC	366,666	0	Dedicated building space for Biotechnical Lab Technician Program.
ICCC	366,666	0	Construct facility to house Biofuels Technology Program.
IVCC	366,666	0	New building for Welding Pathways Program.
HCC	366,666	0	Construct and equip a lab at Adv Mfg. & Industrial Trade Center.
EICC	366,666	0	New welding lab and convert old lab to classroom space.
KCC	366,666	0	Addition to Lin Hall to support Nursing program.
DMACC	366,666	0	New building to house surgical technician and other programs.
WIT	366,666	0	Expand and remodel building for Transportation Technician Program.
IWCC	366,666	0	Construct facility for Advanced Placement AA Degree Nursing.
SWCC	366,666	0	Remodel building for Ag Production Technology Program.
IHCC	366,666	366,666	Construct building on Ottumwa campus for healthcare programs.
SECC	366,666	0	New building for expanding welding program.
NIACC	366,666	0	Remodel and add classroom space for Industrial Welding Program.
Subtotal	5,499,990	366,666	

Appropriation Name: **Community Attraction & Tourism Development**

Appropriated Amount:	5,000,000
Obligated Amount:	4,983,000

Expended Amount: 1,790,074

Grantee	Award Amount	Expended Amt.	
City of Coralville	930,000	219,047	Expand and renovate the city's public library.
City of Des Moines	250,000	250,000	Renovation of the Principal Park baseball stadium.
City of Cherokee	200,000	200,000	Gillette Park renovationg and Cherokee Family Aquatic Center.
City of Waukon	650,000	448,216	Construction of a wellness center.
Drake University	500,000	500,000	Renovation of the Drake University Stadium.
Gooseberry Lake	350,000	0	Development of a 565 acre lake to provide outdoor recreation, water supply, tourism, fishing, hunting, hiking and watching wildlife.
Sioux County Region	1,000,000	0	Construct a new public library complete with technology, cultural and education programs.
Iowa County	244,000	0	Restore historic streetscape with ADA complian sidewalks and pedestrian routes.
Buffalo Bill Museum	250,000	9,988	Construction of a festival hall to enclose the Lone Star Steamer.
City of Eagle Grove	100,000	100,000	Funding for a new aquatic center.
City of Clermont	225,000	20,233	Streetscape and park improvements plus renovation of the Clermont Opera House.
Waverly Health Center	250,000	33,512	Garden conservatory atop the Health Center for the performing arts, and serve as a respite for the Center's patients and their families.
City of Diagonal	34,000	9,078	Relocation of a 100 year old steel-truss, steel-pin connected bridge to link outdoor recreational componenets of park.
Subtotal	4,983,000	1,790,074	

Appropriation Name: **Brownfield Redevelopment Program**

Appropriated Amount: 500,000
Obligated Amount: 500,000
Expended Amount: 0

Recipient	Award Amount	Expended Amt
City of Clinton	100,000	0
City of Coralville	50,000	0
City of Oelwein	100,000	0
City of Sioux City	100,000	0
City of Waterloo	150,000	0
Subtotal	500,000	0

DEPARTMENT OF EDUCATION

Iowa Community Colleges
$2 Million Rebuild Iowa Infrastructure Funding
Fiscal Year 2007

Community College	Fiscal Year 2007 Allocation	Use of Funds
Northeast Iowa Community College	96,743.00	Completed remodeling for ADA access to Calmar Child Care Center
North Iowa Area Community College	110,896.00	Installed fire alarm system in Beem Center and replaced roof on Buettner Careers Building
Iowa Lakes Community College	102,608.00	Campus
Northwest Iowa Community College	50,329.00	Upgraded electrical distribution system (switchgear)
Iowa Central Community College	108,697.00	Roof-top unit replacement
Iowa Valley Community College District	97,595.00	Installed security cameras, began installing student ID access control system and completed exterior handicap accessible door replacement
Hawkeye Community College	142,429.00	Replace compressor in Tama Hall and at Cedar Falls Center, replace high voltage line south of Hawkeye Hall, replaced/repaired jacks for freight and passenger elevators in Hawkeye Center and passenger elevator in Black Hawk Hall, tuck point for Black Hawk Hall, replace gas line at Chickasaw Hall, repair Physical Plant loading dock, and remove boiler #1 and repair refractory for boiler #3 in Physical Plant
Eastern Iowa Community College District	175,682.00	ADA bathroom and sidewalk updating
Kirkwood Community College	285,083.00	Window replacement, basement drainage improvements, plus stair and railing updated to ADA standards in Linn Hall
Des Moines Area Community College	294,828.00	Remodeled chemistry lab in Building 4 and completed re-roofing projects at Porter Center and Building 8
Western Iowa Tech Community College	116,121.00	Security updates at all campuses including FOB keyless entry & security cameras, completed remodeling of classroom for Digital Media program, remodeled HVAC program lab, installed fire alarms and fire alarm panels in Mapleton and Sioux City and remodeled restrooms in Building B
Iowa Western Community College	117,930.00	Installation of interior/exterior security camera system in Arts Center, Dodge Hall, Fremont Hall, Ashley Hall, & Aviation Building to allow monitoring and recording of activity by remote camera. Install ADA compliant power assist door openers in Stuart Hall, Ashley Hall, and Fremont Hall in Council Bluffs. Install fire alarm system in Council Bluffs residence hall.
Southwestern Community College	50,947.00	Completion of State Fire Marshall mandated improvements including: egress window in basement dorm room (Wilson Hall), fire rated walls in the Instructional Building/Student Center and a second exit door in the Art Room, the Auto Collision and Repair Lab and the Chemistry classroom.
Indian Hills Community College	160,084.00	Completed ADA accessibility to Net Center and Administration Building. Installed fire protection and elevator ADA accessibility in Rural Health Education Building
Southeastern Community College	90,028.00	Safety upgrades to electrical system, installed of sprinkler system in Construction Trades Building and constructed parking lot to relieve traffic congestion, improve access and provide four additional handicapped parking spaces
Grand Total	$ 2,000,000	

Iowa Community Colleges
$2 Million Rebuild Iowa Infrastructure Funding
Fiscal Year 2008

Community College	Fiscal Year 2008 Allocation	FY 2008 Amount Spent/Obligated through 12/31/07	Use of Funds (In Process FY 2008)
Northeast Iowa Community College	$97,587.00	$97,587.00	Air Purification System - Peosta Campus, Upgrade of Fire Alarm System - Wilder Building Calmar Campus, Sewage System Improvement Project - Calmar
North Iowa Area Community College	$109,620.00	$109,620.00	McAllister Hall Fire Alarm Upgrade, Buettner Building roof-replacement, Chemical disposal-chemistry lab
Iowa Lakes Community College	$101,218.00	$62,231.00	ADA door openers for restrooms, Roof repair - Estherville Auditorium, Bury fiber optic cable from Estherville Campus to Admin. Building
Northwest Iowa Community College	$49,703.00	$49,703.00	Parking lot improvements
Iowa Central Community College	$109,246.00	$109,246.00	Roof-top unit replacement
Iowa Valley Community College District	$96,476.00	$17,500.00	Underground diesel storage tank removal (leaking), Handicap accessible restroom retrofits at Marshalltown CC, Campus access security system
Hawkeye Community College	$141,561.00	$32,755.82	Replace Tama Hall roof, Farmhouse windows, child care roof, farmhouse roof, steam traps, boiler room lift, Buchanan high voltage line, child care fence, tuck pointing at Black Hawk Hall, Alarm system
Eastern Iowa Community College District	$175,070.00	$175,070.00	In-House Emergency Communication System, Various ADA Projects, Fire Code Updates
Kirkwood Community College	$292,547.00	$237,428.00	Linn Hall Project includes window replacements, basement drainage, stair, and railing improvements (updating to ADA standards).
Des Moines Area Community College	$296,109.00	$177,824.00	New Bleachers - Boone Gym, Update Marketing Building (Building 21)
Western Iowa Tech Community College	$116,006.00	$80,540.07	Remodel of Heating and AC program lab, Security updates on main campus (install new locks in classrooms, panic bars, and FOB keyless entry in Physical Plant building), Security updates on KWIT tower (install security camera on KWIT tower), Security updates at Sun Ridge Court (install code blue emergency phone in Sun Ridge Court (dorm) parking lot), Parking lot and sidewalk improvements on main campus and Cherokee Campus
Iowa Western Community College	$117,173.00	$49,008.00	Security cameras in new hosuing facility, paging system upgrades for all buildings, Security Camera expansion in Lewis Hall, ADA accessible powered door opener, Expand camera system in Arts Center Facility, Upgrade and install fire alarm panel and enuciator
Southwestern Community College	$50,327.00	$0.00	Spending plans not finalized
Indian Hills Community College	$158,054.00	$108,335.00	Grandview / Indian Hills Drive improvement work, Automatic temperature control system - Trustee Hall
Southeastern Community College	$89,303.00	$89,303.00	Replace Exterior Building Doors, Parking lot improvements, various electrical/lighting safety and improvements
Grand Total	$2,000,000	$1,396,151	

STATE LIBRARY OF IOWA
ENRICH IOWA PROGRAM – FUNDING FROM RIIF
FY07

In accordance with 2007 IOWA ACTS, Chapter 214, Section 6 (4B), the State Library of Iowa is pleased to submit this report on the impact of state funding on Iowans and Iowa libraries through the Enrich Iowa program.

Iowa is a state rich in libraries, with 543 public libraries; more than 80 college and university libraries; and about 1,400 school libraries. Libraries enrich Iowa and support lifelong learning.

The State Library of Iowa actively champions libraries and improves library services for Iowans through its management of the Enrich Iowa program.

Enrich Iowa includes Direct State Aid to public libraries, and the Open Access and Access Plus library resource sharing programs. **A total of $2,651,898 was distributed to Iowa libraries in FY07, with $953,466 of that total coming from the Rebuild Iowa Infrastructure Fund and the remainder from the general fund.**

Open Access, established in 1989, allows Iowans to walk into any participating Iowa library and borrow books and other materials. Borrowers can simply return the materials to their local public library, which will pay to ship the items back to the loaning library. Open Access reimburses the loaning library a small portion of the expenses involved. Iowans checked out 3,791,654 items from 609 libraries in FY07. Open Access funding in FY07 was $1,128,091 ($463,432 from the general fund and **$664,659 from the Rebuild Iowa Infrastructure Fund**). The number of items checked out through this program has increased 82% over the past ten years, from 2,164,932 in FY97 to 3,791,654 in FY07.

The **Access Plus** program, established in 1989, allows Iowans to borrow books and other materials from another library if their home library doesn't own them. Participating libraries are reimbursed a portion of the cost of mailing materials to other Iowa libraries through this interlibrary loan program. The 608 participating libraries loaned 269,000 items in FY07. Access Plus funding in FY07 was $523,807 ($235,000 from the general fund and **$288,807 from the Rebuild Iowa Infrastructure Fund).** The number of items borrowed through this program has increased 78% over the past ten years, from 151,188 in FY97 to 269,000 in FY07.

Mary Wegner
State Librarian
February 5, 2008

Iowa Public Television
Infrastructure Appropriations Status Report
January 15, 2007

Project: Digital Television Conversion

Description:
The Federal Communications Commission (FCC) has mandated that the entire broadcast industry convert from our present analog transmission standard to a new digital transmission standard. IPTV must convert nine transmitters, eight translators and its headquarters from analog to digital. To prepare a site for digital broadcast, towers are purchased, leased, modified, or built. Transmitters, antennas, transmission lines and other RF components are designed, purchased and installed. Buildings for the transmitters and equipment are built or modified.

The main stakeholders in this project are children, educators, adult learners and citizens across the State of Iowa.

High Definition Television is the service that allows Iowa Public Television to broadcast programming that brings movie theater-quality images and concert hall sound clarity to the home. The stunning picture and sound will bring to life much of the programming that is watched at home and will provide viewers with pictures so real viewers will feel like they're a part of them. These wide-screen presentations provide just one option in a wide array of digital television opportunities.

Another exciting digital television offering is called multicasting and involves Standard Definition Television (SDTV). While DTV provides a single broadcast channel, digital technology allows four or more channels of programs. This allows IPTV to then expand into four or more channels in the daytime - simultaneously providing programs to meet the needs of preschoolers, seniors and lifelong learners, each with their own channel. Interactive learning tools will be delivered right to the television, giving viewers unlimited educational opportunities and offering students a way to be actively engaged in content. And, while not the same quality as HDTV, SDTV still provides vastly superior quality over current analog television.

DTV technology will allow for more information and expansion of service. Datacasting opportunities will allow us to include additional information about the programming that can be viewed after the program airs. Interactive programs will allow viewers to actively participate in the event. The possibilities for partnership and interaction with IPTV viewers will be outstanding.

Progress of Work Completed:
The following high power transmitters have been completed and are on-air:

- KDIN-DT, Des Moines
- KIIN-DT, Iowa City
- KBIN-DT, Council Bluffs
- KSIN-DT, Sioux City
- KRIN-DT, Waterloo
- KHIN-DT, Red Oak

- KTIN-DT, Fort Dodge (August, 2007)
- KYIN-DT, Mason City (August, 2007)

A tower lease agreement has been entered into for Davenport (KQIN-DT). The digital transmitter has been purchased and the antenna has been ordered for the site.

The following translators have been completed and are on-air:
- Ottumwa
- Fort Madison

The digital interconnections between the transmitter sites and Johnston headquarters have been completed. A digital master control system has been installed at Johnston headquarters. The studio equipment has been purchased and is currently being installed (December, 2007).

Total Estimated Cost of Project: $47,000,000

List of all Revenue Sources to Fund the Project:
State Funds:
- Technology Program
- Pooled Technology Fund
- Tax-Exempt Bonds Proceeds Rest
- Rebuild Iowa Infrastructure Fund
- Technology Reinvestment Fund

Federal Funds
- Department of Commerce, National Telecommunications and Information Administration, Public Telecommunications Facilities Program

Other Funds
- Corporation for Public Broadcasting Digital Universal Service Fund Grants
- Corporation for Public Broadcasting Digital Distribution Fund Grants
- Business and Industry partners

Amount of Funds Expended: $30,618,399 (as of June 30, 2007)

Amount of Funds Obligated: $ 3,302,000 (as of June 30, 2007)

Estimated Completion Date of Project: June 30, 2008

Project: Replacement of Analog Transmitters

Description:
This project is for the purchase and installation of six UHF transmitters to replace analog transmitters that are 25 years old or older. These replacements are critically important because the FCC is requiring that broadcasters simulcast analog and digital signals until February, 2009.

CPI, the vendor who maintained IPTV's klystron tubes that are used in our existing analog transmitters, no longer stocks replacements and can no longer supply rebuilt tubes without our first sending them a dud klystron (a tube that has failed). The rebuild process requires that the dud tube be capable of being rebuilt, and more than half the time this is not the case. The rebuild process also takes three to six months during which time the transmitter is off the air and Iowans are not being served. There is a limited supply of the tubes and they are no longer being manufactured. If we can not get replacements when our klystron tubes go out, we cannot provide analog service to our viewers in that area. The replacement of our transmitters would eliminate reliance on klystron tubes, allowing us to maintain public television service.

These transmitters will be used for both our analog and digital services -- analog immediately and then as a back-up to our digital transmitters at the end of analog broadcasting. The back-up transmitters would increase the reliability of our services to the more than 1,000,000 viewers who watch IPTV's programming each week

Progress of Work Completed:
The analog transmitter at KRIN, Waterloo was installed in November, 2007. A transmitter has been ordered and will be installed at KSIN, Sioux City, in April, 2008.

Total Estimated Cost of Project: $3,425,000

List of all Revenue Sources to Fund the Project:
State Funds: Technology Reinvestment Fund

Amount of Funds Expended: $4,807 (as of June 30, 2007)

Amount of Funds Obligated: $0 (as of June 30, 2007)
An agreement with a vendor has been signed for the replacement of six analog transmitters. Obligations of funds will be made as the individual transmitters are ordered.

Estimated Completion Date of Project: June 30, 2009

Project: Uninterruptible Power Supply (UPS)

Description:
This project is for the purchase and installation of an uninterruptible power supply (UPS) to work in conjunction with the local power service and the generator to supply filtered electricity and synchronous switching between services during power outages and restoration. This will insure continuous operation of our broadcast services and minimize system lock-up due to loss of power service and generator startup, power line noise and switching transients.

IPTV has a backup generator system capable of operating the entire IPTV broadcast center during power outages. Like all backup generators, there is a period of time required between when the power fails and when the generator is operational and the load is switched from the local power company service to the generator. At a power failure, the generator automatically starts, comes up to speed and stabilizes and then switches the load. This entire process takes approximately 30 seconds and during that time IPTV is completely without power other than some isolated small computer systems that are on local UPS devices. During that period of time, IPTV is off-air statewide. It generally takes five to ten minutes for all of the systems to restart and restoration of normal operations.

Iowa Public Television has a small UPS with some critical components on it. The UPS is nearing 20 years of age and the time that it should be replaced. Currently IPTV has over $6,000,000 in assets that would be protected by a new UPS. As IPTV continues the federally mandated conversion to digital broadcasting, much of these assets will be replaced. The newly acquired equipment will be computer based and requires stable continuous electric service.

Progress of Work Completed:
Responses to a RFP for the UPS has been received, a vendor has been selected and an agreement will be signed January, 2008

Total Estimated Cost of Project: $1,000,000

List of all Revenue Sources to Fund the Project:
State Funds: Technology Reinvestment Fund

Amount of Funds Expended: $0 (as of June 30, 2007)

Amount of Funds Obligated: $0 (as of June 30, 2007)
Responses to a RFP for the UPS has been received, a vendor has been selected and an agreement will be signed in January, 2008

Estimated Completion Date of Project: June 30, 2008

Project: Mobile Unit

Description:
This project is for the purchase of a mobile television production unit and digital equipment.

A mobile television production unit is needed to allow Iowa Public Television to originate live programming from anywhere in the state. This will be a digital television production unit capable of high definition production and stereo sound. Not only will it help Iowa Public Television show Iowa to Iowans, it will also enable us to showcase the state to the rest of America. It is an appropriate and necessary responsibility for the last statewide media outlets in Iowa, and one of the few remaining examples of locally-controlled media.

Progress of Work Completed:
Responses to a RFP for the mobile unit have been received, a vendor has been selected and the mobile unit is being built (December, 2007).

Total Estimated Cost of Project: $1,000,000

List of all Revenue Sources to Fund the Project:
State Funds: Technology Reinvestment Fund

Amount of Funds Expended: $0 (as of June 30, 2007)

Amount of Funds Obligated: $0 (as of June 30, 2007)

Estimated Completion Date of Project: June 30, 2008

ETHICS AND CAMPAIGN FINANCE DISCLOSURE

IOWA ETHICS AND CAMPAIGN DISCLOSURE BOARD

An Independent Agency of the Executive Branch

W. CHARLES SMITHSON
Executive Director
& Legal Counsel

510 East 12th, Suite 1A
Des Moines, Iowa 50319
Telephone 515-281-4028/General Fax 515-281-3701
Report Fax Line 515-281-4073
www.iowa.gov/ethics

BOARD MEMBERS:
James Albert, Chair
Janet Carl, Vice Chair
Gerald Sullivan
Betsy Roe
John Walsh
Patricia Harper

TO: **TRANSPORTATION, INFRASTRUCTURE, & CAPITALS APPROPRIATIONS SUBCOMMITTE**
LEGISLATIVE SERVICES AGENCY
DEPARTMENT OF MANAGEMENT
CAPITAL PROJECTS COMMMITTEE

FROM: **CHARLIE SMITHSON, ETHICS BOARD DIRECTOR & COUNSEL**

DATE: **JANUARY 9, 2008**

Re: **INFRASTRUCTURE REPORTING REQUIREMENT**

This memorandum is being filed by the Iowa Ethics and Campaign Disclosure Board (Board) pursuant to 2006 Iowa Acts, Ch. 1179, Division VI, Sec. 23 (HF 2782) and covers an appropriation from the Technology Reinvestment Fund. The appropriation was made to the Board under 2006 Iowa Acts, Ch. 1179, Division VI, Sec. 21 (HF 2782).

1. An appropriation of $39,100 was made to the Board with the legislative directive for "technological improvements to the board's electronic filing system."

2. The purpose of the project is as follows:

A. An overhaul of the current campaign finance system.

B. An overhaul of the current executive branch lobbyist and lobbyist client system.

C. The production of a new personal financial disclosure system that will permit the executive branch officials and employees that file Personal Financial Disclosure Statements with the Board pursuant to Iowa Code section 68B.35 to do so via the Internet.

3. The total estimated cost of the project is $36,800 payable to the vendor (Quality Consulting, Inc.) and $1,142.00 was paid to the Department of Administrative Services Information Technology Enterprise for a total projected cost of $37,942.72.

4. The amount of funds currently expended on the project is $23,222.00.

5. The progress of the work completed/estimated completion date of the project is as follows:

A. The campaign finance system went live on December 29, 2007.

B. Work has begun on the lobbying and personal financial disclosure systems.

C. The final completion of the last two phases of the project is March 1, 2008.

If any of you have questions or concerns about this project or the appropriation made to the Board, please notify me.

DEPARTMENT OF HUMAN RIGHTS

House File 2782
Infrastructure Report
Transportation, Infrastructure and Capitals Appropriation Subcommittee

Project Name and Description

Criminal Justice Information System (CJIS) Integration Project - This project intends to develop a seamless, real-time, electronic information sharing system to be used by all members of the criminal justice community in Iowa. Historically, criminal justice information systems have been developed in isolation, resulting in independent systems that may share many common data concepts without being able to communicate. The CJIS system is designed to enable the timely and efficient sharing of information within and between criminal justice agencies.

Progress of Work

A significant amount of progress has been made on this project. All of the necessary hardware and software to establish the centralized message exchange broker has been purchased, installed, and programmed. Contractors and state staff are doing the necessary development work with the end point agencies to begin the automated exchange of information. The first ten "exchanges" are currently in the testing phase and there are plans to roll out these exchanges into production during the first quarter of 2008. Additionally, development of the computer programming necessary for the next 20 exchanges is underway. These next 20 exchanges are projected to be in production by the end of 2008.

Total Estimated Cost of the Project

The project began in 2001 and the total estimated cost of the project (from all sources of funds) is expected to be around $15,000,000.

List of All Revenue Sources Used for the Project

State appropriation; National Governor's Association (NGA) Grants; Byrne Grants; National Criminal History Improvement Program (NCHIP) Grants, Return on Investment (ROI) Funds; Homeland Security Funds; Local Government Innovation Funds; Agency Operating Funds.

Amount of Funds Expended

$2, 500,000

Amount of Funds Obligated

$3,000,000

Date of Project Completion or Estimated Completion

June 30, 2012

DEPARTMENT OF HUMAN SERVICES

Toledo

	Rebuild Iowa Infrastructure Fund (RIIF) - Fund 0017	Environment First Fund - Fund 0295	Vertical Infrastructure Fund - Fund 0099	Technology Reinvestment Fund - Fund 0943	Endowment for Iowa's Health Restricted Capitals Fund - Fund 0942
Project Name and Description			**Routine Maintenance**		
All Revenue Sources for Funding			$105,222		
Agency Submitting Request			IJH - Toledo		
Percent of Completed Work			14%		
Total Estimated Project Cost			$105,222		
All Revenue Sources for Funding			$105,222		
Expended Funds			$14,899		
Obligated Funds			0		
Estimated Completion Date			6/30/2008		
Project Name and Description			**Major Maintenance**		
All Revenue Sources for Funding			$656,724		
Agency Submitting Request			DAS - A&E		
Percent of Completed Work			31%		
Total Estimated Project Cost			$656,724		
All Revenue Sources for Funding			$656,724		
Expended Funds			$202,035		
Obligated Funds			$246,546		
Estimated Completion Date			6/30/2008		
Project Name and Description	**Capitals**				**Capitals**
All Revenue Sources for Funding	$8,196,045				$9,651,733
Agency Submitting Request	DAS - A&E				DAS - A&E
Percent of Completed Work	5%				5%
Total Estimated Project Cost	$8,196,045				$9,651,733
All Revenue Sources for Funding	$8,196,045				$9,651,733
Expended Funds	$986,602				$321,348
Obligated Funds	$1,107,419				$789,346
Estimated Completion Date	9/1/2009				9/1/2009

Eldora

	Rebuild Iowa Infrastructure Fund (RIIF) - Fund 0017	Environment First Fund - Fund 0295	Vertical Infrastructure Fund - Fund 0099	Technology Reinvestment Fund - Fund 0943	Endowment for Iowa's Health Restricted Capitals Fund - Fund 0942
Project Name and Description			**Routine Maintenance**		
All Revenue Sources for Funding			Fund 0099		
Agency Submitting Request			DHS - State Training School		
Percent of Completed Work			3.50%		
Total Estimated Project Cost			$292,092		
All Revenue Sources for Funding			Fund 0099		
Expended Funds			$9,934		
Obligated Funds			$21,410		
Estimated Completion Date			01/08/08		
Project Name and Description			**Major Maintenance**		
All Revenue Sources for Funding			Fund 0099		
Agency Submitting Request			DHS - State Training School		
Percent of Completed Work			2.00%		
Total Estimated Project Cost			$1,027,392		
All Revenue Sources for Funding			Fund 0099		
Expended Funds			$93,633		
Obligated Funds			$785,073		
Estimated Completion Date			06/08/08		
Project Name and Description			**Capitals**		
All Revenue Sources for Funding			None		

CCUSO

	Rebuild Iowa Infrastructure Fund (RIIF) - Fund 0017	Environment First Fund - Fund 0295	Vertical Infrastructure Fund - Fund 0099	Technology Reinvestment Fund - Fund 0943	Endowment for Iowa's Health Restricted Capitals Fund - Fund 0942	DAS Supplemental Appropriation Bill # SF 403 & Previous Legislation
Project Name and Description	**Capital**					
All Revenue Sources for Funding	$2,150,000					
Agency Submitting Request	DAS -A & E					
Percent of Completed Work	70%					
Total Estimated Project Cost	$2,150,000					
All Revenue Sources for Funding	$2,150,000					
Expended Funds	$1,237,816					
Obligated Funds	$1,502,256					
Estimated Completion Date	2/8/08					

Cherokee

	Rebuild Iowa Infrastructure Fund (RIIF) - Fund 0017	Environment First Fund - Fund 0295	Vertical Infrastructure Fund - Fund 0099	Technology Reinvestment Fund - Fund 0943	Endowment for Iowa's Health Restricted Capitals Fund - Fund 0942
Project Name and Description	none	none	**Routine Maintenance**	none	none
All Revenue Sources for Funding			$251,223		
Agency Submitting Request			DHS-Cherokee		
Percent of Completed Work			40%		
Total Estimated Project Cost			$251,223		
All Revenue Sources for Funding			$251,223		
Expended Funds			$99,941		
Obligated Funds			$146,633		
Estimated Completion Date			6/30/2008		
Project Name and Description			**Major Maintenance**		
All Revenue Sources for Funding			$2,370,408		
Agency Submitting Request			DHS-Cherokee		
Percent of Completed Work			38%		
Total Estimated Project Cost			$2,370,408		
All Revenue Sources for Funding			$2,370,408		
Expended Funds			$578,954		
Obligated Funds			$887,975		
Estimated Completion Date			12/30/2008		
Project Name and Description			**Capitals**		
All Revenue Sources for Funding			None		

Clarinda

	Rebuild Iowa Infrastructure Fund (RIIF) - Fund 0017	Environment First Fund - Fund 0295	Vertical Infrastructure Fund - Fund 0099	Technology Reinvestment Fund - Fund 0943	Endowment for Iowa's Health Restricted Capitals Fund - Fund 0942
Project Name and Description			**Routine Maintenance**		
All Revenue Sources for Funding			$236,855		
Agency Submitting Request			DHS - Clarinda		
Percent of Completed Work			39%		
Total Estimated Project Cost			$236,855		
All Revenue Sources for Funding			$236,855		
Expended Funds			$88,707		
Obligated Funds			$91,292		
Estimated Completion Date			6/30/2008		
Project Name and Description			**Major Maintenance**		
All Revenue Sources for Funding			$4,269,852		
Agency Submitting Request			DHS - Clarinda		
Percent of Completed Work			0%		
Total Estimated Project Cost			$4,269,852		
All Revenue Sources for Funding			$4,269,852		
Expended Funds			$156,066		
Obligated Funds			$493,011		
Estimated Completion Date			6/30/2009		
Project Name and Description			**Capitals**		
All Revenue Sources for Funding			None		

Independence

	Rebuild Iowa Infrastructure Fund (RIIF) - Fund 0017	Environment First Fund - Fund 0295	Vertical Infrastructure Fund - Fund 0099	Technology Reinvestment Fund - Fund 0943	Endowment for Iowa's Health Restricted Capitals Fund - Fund 0942
Project Name and Description			**Routine Maintenance**		
All Revenue Sources for Funding			$380,334.18		
Agency Submitting Request			DHS- Independence		
Percent of Completed Work			30%		
Total Estimated Project Cost			$380,334.18		
All Revenue Sources for Funding			$380,334.18		
Expended Funds			$115,785.38		
Obligated Funds			$0.00		
Estimated Completion Date			6/30/2008		
Project Name and Description			**Major Maintenance**		
All Revenue Sources for Funding			$1,204,440		
Agency Submitting Request			DHS-Independence		
Percent of Completed Work			17%		
Total Estimated Project Cost			$1,204,440		
All Revenue Sources for Funding			$1,204,440		
Expended Funds			$282,871		
Obligated Funds			$199,600		
Estimated Completion Date			06/30/08		
Project Name and Description			**Capitals**		
All Revenue Sources for Funding			None		

Mt. Pleasant

	Rebuild Iowa Infrastructure Fund (RIIF) - Fund 0017	Environment First Fund - Fund 0295	Vertical Infrastructure Fund - Fund 0099	Technology Reinvestment Fund - Fund 0943	Endowment for Iowa's Health Restricted Capitals Fund - Fund 0942
Project Name and Description			**Routine Maintenance**		
All Revenue Sources for Funding			$46,294		
Agency Submitting Request			DHS - Mt. Pleasant		
Percent of Completed Work			49%		
Total Estimated Project Cost			$46,294		
All Revenue Sources for Funding			$46,294		
Expended Funds			$22,526		
Obligated Funds			$25,638		
Estimated Completion Date			6/30/2008		
Project Name and Description			**Major Maintenance**		
All Revenue Sources for Funding			$2,653,942		
Agency Submitting Request			DHS-Mt. Pleasant		
Percent of Completed Work			25-35%		
Total Estimated Project Cost			$2,653,942		
All Revenue Sources for Funding			$2,653,942		
Expended Funds			$236,011		
Obligated Funds			$2,653,942		
Estimated Completion Date			2/28/2009		
Project Name and Description			**Capitals**		
All Revenue Sources for Funding			None		

Glenwood

	Rebuild Iowa Infrastructure Fund (RIIF) - Fund 0017	Environment First Fund - Fund 0295	Vertical Infrastructure Fund - Fund 0099	Technology Reinvestment Fund - Fund 0943	Endowment for Iowa's Health Restricted Capitals Fund - Fund 0942
Project Name and Description	none	none	**Routine Maintenance**	none	none
All Revenue Sources for Funding			$1,056,875		
Agency Submitting Request			DHS - Glenwood		
Percent of Completed Work			0%		
Total Estimated Project Cost			$1,056,875		
All Revenue Sources for Funding			$1,056,875		
Expended Funds			$0		
Obligated Funds			$187,323		
Estimated Completion Date			30-Jun-08		
Project Name and Description			**Major Maintenance**		
All Revenue Sources for Funding			$2,501,186		
Agency Submitting Request			DHS-Glenwood		
Percent of Completed Work			50-60%		
Total Estimated Project Cost			$2,501,186		
All Revenue Sources for Funding			$2,501,186		
Expended Funds			$1,434,265		
Obligated Funds			$2,220,912		
Estimated Completion Date			30-Dec-08		
Project Name and Description			**Capitals**		
All Revenue Sources for Funding			**None**		

Woodward

	Rebuild Iowa Infrastructure Fund (RIIF) - Fund 0017	Environment First Fund - Fund 0295	Vertical Infrastructure Fund - Fund 0099	Technology Reinvestment Fund - Fund 0943	Endowment for Iowa's Health Restricted Capitals Fund - Fund 0942
Project Name and Description	none	none	**Routine Maintenance**	none	none
All Revenue Sources for Funding			$647,617		
Agency Submitting Request			DHS - Woodward		
Percent of Completed Work			0%		
Total Estimated Project Cost			$647,617		
All Revenue Sources for Funding			$647,617		
Expended Funds			$0		
Obligated Funds			$0		
Estimated Completion Date			Fall 2008		
Project Name and Description			**Major Maintenance**		
All Revenue Sources for Funding			$2,989,693		
Agency Submitting Request			DHS-Woodward		
Percent of Completed Work			0-10%		
Total Estimated Project Cost			$2,989,693		
All Revenue Sources for Funding			$2,989,693		
Expended Funds			$1,166,693		
Obligated Funds			$1,567,110		
Estimated Completion Date					
Project Name and Description					**Capitals**
All Revenue Sources for Funding					$2,443,000
Agency Submitting Request					DAS-A & E
Percent of Completed Work					95.00%
Total Estimated Project Cost					$2,443,000
All Revenue Sources for Funding					$2,443,000
Expended Funds					$1,423,985
Obligated Funds					$1,423,985
Estimated Completion Date					3/31/2008

IOWA FINANCE AUTHORITY

Memorandum

To: Marcia Tannian, Legislative Services Agency

From: Joseph Jones, Iowa Finance Authority

RE: RIIF Funding

Marcia,

The RIIF appropriation IFA received for FY08 ($2.5 million) for the State Housing Trust Fund (SHTF) is pooled with other monies and then split 60%/40% for Local Housing Trust Funds and Project-Based awards respectively. Therefore, we can not track a breakdown of funds to individual projects. We can make the list of projects that have been awarded thus far available to you. Please let me know if you have further questions. Thank you.

-Joseph

Iowa Finance Authority
INVESTING IN HOME AND COMMUNITY

FY 2008 Local Housing Trust Fund (LHTF) Program Awards

Project	Recipient	Category	Funding Award
08-01	Sioux City Housing Trust Fund *Area Served: City of Sioux City*	LHTF	$ 146,251
08-02	Scott County Housing Council *Area Served: Scott County*	LHTF	$ 146,251
08-03	Fayette County Local Housing Trust Fund *Area Served: Fayette County*	LHTF	$ 73,126
08-04	Floyd County Housing Trust Fund *Area Served: Floyd County*	LHTF	$ 73,126
08-05	Southern Iowa COG Housing Trust Fund *Area Served: Adair, Adams, Clarke, Decatur, Madison, Ringgold, Taylor and Union counties*	LHTF	$ 87,751
08-06	Lakes Community Land Trust *Area Served: Dickinson County*	LHTF	$ 73,126
08-07	Southwest Iowa Housing Trust Fund, Inc. *Area Served: Cass, Fremont, Harrison, Mills, Montgomery, Page, Pottawattamie (excluding the city of Council Bluffs) and Shelby counties*	LHTF	$ 146,251
08-08	City of Oskaloosa Housing Trust Fund *Area Served: City of Oskaloosa*	LHTF	$ 73,126
08-09	Iowa Northland Regional Housing Council LHTF *Area Served: Black Hawk (excluding the cities of Waterloo and Cedar Falls), Bremer, Buchanan, Butler, Chickasaw and Grundy counties*	LHTF	$ 111,151
08-10	Homeward Housing Trust Fund *Area Served: Buena Vista, Calhoun, Franklin, Hancock, Hardin, Humboldt, Kossuth, Mitchell, Palo Alto, Pocahontas, Winnebago, Worth and Wright counties*	LHTF	$ 146,251
08-11	Housing Trust Fund of Johnson County *Area Served: Johnson County*	LHTF	$ 146,251
08-12	City of Dubuque Housing Trust Fund *Area Served: City of Dubuque*	LHTF	$ 146,251
08-13	Housing Fund for Linn County *Area Served: Linn County*	LHTF	$ 146,251
08-14	Dallas County Local Housing Trust Fund, Inc. *Area Served: Dallas County*	LHTF	$ 134,537
08-15	Polk County Housing Trust Fund *Area Served: Polk County*	LHTF	$ 146,251
08-16	COG Housing, Inc. *Area Served: Audubon, Carroll, Crawford, Greene, Guthrie and Sac counties*	LHTF	$ 146,251
TOTAL 2008 FUNDING AWARDS		LHTF	$1,942,202

Iowa Finance Authority
INVESTING IN HOME AND COMMUNITY

FY 2008 Project-Based Housing Program Awards
As of February 6, 2008

Project	Recipient	Category	Funding Award
08-17	Northeast Iowa Community Action Corporation *Project Location: Cresco (Howard County)*	Project-Based	$80,000
08-18	Family Crisis Centers of Northwest Iowa *Project Location: Sioux Center (Sioux County)*	Project-Based	$90,000
08-25	Community Housing Initiatives, Inc. *Project Location: Spencer (Clay County)*	Project-Based	$90,000
08-27	Maquoketa Housing II, LP *Project Location: Maquoketa (Jackson County)*	Project-Based	$90,000
08-28	Welch Hotel, LP *Project Location: Muscatine (Muscatine County)*	Project-Based	$90,000
TOTAL 2008 FUNDING AWARDS		Project-Based	$440,000

Applicant	Pop.	LMI	total project cost	eligible cost	%	total possible grant
Toledo	2539	67.70%	$4,000,000	$1,916,000	60%	$1,149,600
Ireton	585	63.60%	$1,298,800	$1,298,800	90%	$1,168,920
Wheatland	772	56%	$2,246,658	$218,450	90%	$196,605
Rock Valley	2824	54%	$5,717,000	$143,600	60%	$86,160
subtotal			$13,262,458	$3,576,850		**$2,601,285**
City of Mapleton	1416	61.02%	$117,800	$117,800	80%	$94,240
City of Edgewood	923	52.12%	$1,673,500	$1,086,500	90%	$977,850
City of Stuart	1680	55.20%	$2,700,000	$2,350,000	70%	$1,645,000
Iowa Lakes Regional Water	91	52.50%	$752,247	$12,000	95%	$11,400
			$5,243,547	$3,566,300		**$2,728,490**
Pending DNR Approval						
RUSS	Mt. Union	141	$1,440,000	$55,000	95%	$52,250
Total Approved						**$5,329,775**

IOWA LAW ENFORCEMENT ACADEMY

Memo:

Iowa Law Enforcement Academy

To: **Marcia Tannian, Fiscal Services Division, Legislative Services Agency**

From: **Roger Sitterly, Accountant**

Subject: **Update on computer lab**

Date: **Sunday, February 10, 2008**

During FY 2007, the Iowa Law Enforcement Academy received $50,000 in funding to convert what had been a library to a computer lab. The former library was rearranged, electrical wiring was done to provide appropriate power sources for the new computers, eighteen computer desks and eighteen computers were installed, and the project has been completed.

Roger Sitterly
Accountant
Iowa Law Enforcement Academy

IOWA
TELECOMMUNICATIONS AND TECHNOLOGY COMMISSION

IOWA TELECOMMUNICATIONS & TECHNOLOGY COMMISSION

Thomas J. Vilsack
GOVERNOR

Sally J. Pederson
LT. GOVERNOR

Betsy Brandsgard
CHAIRPERSON

Pamela A. Duffy
Robert R. Hardman
Timothy L. Lapointe
Michael W. Mahaffey
David A. Vaudt

December 24, 2007

Memorandum

TO: Members of the Capital Projects Committee of the Legislative Council
Members of the Transportation, Infrastructure, and Capitals Appropriations Subcommittee
Dave Reynolds, Legislative Services Agency (LSA)
Jennifer Acton, Legislative Services Agency (LSA)
Dave Fardal, Department of Management (DOM)
Lee Hill, Department of Management

FR: John P. Gillispie, Executive Director

RE: Technology Reinvestment Fund Project Status

This status report is being submitted to meet the requirement in Iowa Code Chapter 8.57C for agencies receiving funding from the Technology Reinvestment Fund to report the status of their funded projects by January 1, 2008.

The ICN received an appropriation of $2,067,000, for fiscal year 2008 to replace and upgrade equipment that is reaching its end of functional life. Following is an explanation of the two equipment replacement projects funded this year.

- **Voice (Local Telephone System) equipment serving state agencies in the capitol complex.** The manufacturer no longer supports the equipment and third-party refurbished replacement parts are becoming scarce. So far, the ICN has not experienced large outages. Expenditures are being made to replace telephones and network equipment, as well as labor and training. (Third part of six-year project.)
- **Internet Services Technology Equipment.** Many new video applications for education, medical and other government services are moving to Internet Protocol (IP) technology. Capabilities offered by the new equipment would allow more simultaneous "IP" sessions and better quality Video over IP conferences than are currently supported. Availability of the IP option meets the current and future needs of the educational community as more video sites deploy and utilize IP connections.

To date, $1,146,100 of the appropriation has been expended. There have been no other obligations of the funding to date. All of the subprojects are scheduled to be finished by the end of the fiscal year. The funding source for the projects is the appropriation, with the ICN paying for any costs exceeding the appropriation from the Iowa Communications Network Fund. See the attached worksheet for details.

Please contact Tami Fujinaka, Government Relations Manager if you require additional information. (tami.fujinaka@iowa.gov or 515-725-4658)

IOWA COMMUNICATIONS NETWORK John P. Gillispie, EXECUTIVE DIRECTOR www.icn.state.ia.us
Grimes Building, 400 East 14th Street, Des Moines, IA 50319 PHONE (515) 725-4633 OR 1-877-426-4692 FAX (515) 725-4727

Iowa Communications Network
Technology Reinvestment Fund Appropriation Status Report
December 27, 2007

Project	Equipment Type	Status of Subproject	Estimated Cost	Revenue Sources	Amount of Funds Expended	Amount of Funds Obligated	Percent Completed	Estimated Completion Date
Voice (Local Telephone System) equipment serving state agencies on the capitol complex and in Polk County	Telephones		$406,800	Fund 04U	$346,953		0%	6/30/2008
Voice (Local Telephone System) equipment serving state agencies on the capitol complex and in Polk County	Network Equipment		$457,650	Fund 04U	$390,322		1%	6/30/2008
Voice (Local Telephone System) equipment serving state agencies on the capitol complex and in Polk County	Labor and Training		$152,550	Fund 04U	$130,107		0%	6/30/2008
Internet Services Technology Equipment	Switches		$735,000	Fund 04U	$278,718		38%	6/30/2008
Internet Services Technology Equipment	Routers		$315,000	Fund 04U			0%	6/30/2008
	Total Appropriation		$2,067,000		$1,146,100			

DEPARTMENT OF NATURAL RESOURCES

Iowa Department of Natural Resources
Funding Report
December 31, 2007

Appropriation Name	Description of Project	Progress	Total Estimated Cost	Additional Funding	Funds Expended	Funds Obligated	Estimated Completion Date
FY 06 Appropriation							
Rebuild Iowa Infrastructure Fund							
Destination Park	Supports the creation of a destination park.	9%	$ 3,000,000	$ 4,000,000	$ 271,784	$ 6,728,216	June, 2008
Lake Cornelia	To make improvments at Lake Cornelia.	75%	$ 429,000		$ 320,390	$ 108,610	June, 2008
Waubonsie State Park Addition & Improvements	To purchase land adjacent to Waubonsie State Park and implement necessary development.	81%	$ 1,500,000		$ 1,216,786	$ 283,214	June, 2008
Ft. Atkinson Preserves Improvement	To restore Ft. Atkinson.	62%	$ 500,000		$ 311,209	$ 188,791	June, 2008
Mid America Port Commission	To pay dues to the Mid-America Port Commission.	100%	$ 80,000		$ 80,000	$ -	Complete
Total Rebuild Iowa Infrastructure Fund			**$ 5,509,000**	**$ 4,000,000**	**$ 2,200,169**	**$ 7,308,831**	
Environment First Fund							
Water Quality and Keepers of the Land	Supports the Keepers of the Land Program with the goal of making it easy for Iowans to volunteer and become involved as advocates for Iowa's natural resources.	100%	$ 100,000		$ 100,000	$ -	Complete
Marine Fuel Tax	Supports the established program that improves the quality of lakes and other boating areas, increases access points and develops them for safe and appropriate use, and makes other boating safety and recreation related improvements.	100%	$ 2,300,000		$ 2,300,000	$ -	Complete
State Park Maintenance	Supports the Park's Bureau facility and grounds maintenance costs, equipment costs to maintain the facilities and grounds, and a portion of facility maintenance staff costs, primarily in the form of summer workers.	100%	$ 2,000,000		$ 2,000,000	$ -	Complete
GIS Watershed Managers	Supports the development, acquisition, and analysis of geographic and demographic data for resource management.	100%	$ 195,000		$ 195,000	$ -	Complete
Water Quality Monitoring	Supports water quality monitoirng which enables the Department to assess the quality of our water and extent of water quality problems, determine wheter watershed improvements were effective, and identify new threats to and emerging issues in Iowa's water quality.	100%	$ 2,955,000		$ 2,955,000	$ -	Complete

Iowa Department of Natural Resources
Funding Report
December 31, 2007

Appropriation Name	Description of Project	Progress	Total Estimated Cost	Additional Funding	Funds Expended	Funds Obligated	Estimated Completion Date
Water Quality Protection	Supports the public drinking water supply program by providing a match for federal funds.	100%	$ 500,000		$ 500,000	$ -	Complete
Lake Dredging	Supports the established program that restores deteriorated lake water quality and improves fishing, swimming, boating and other recreational activities on lakes across Iowa.	100%	$ 1,500,000	$ 175,071	$ 1,675,071	$ -	Complete
Resource Enhancement and Protection	Allows for sustainable funding for natural resource protection, cultural resource enhancement and protection and outdoor recreation enhancement at all levels of state government: state, county and city.	100%	$ 11,000,000		$ 11,000,000	$ -	Complete
Total Environment First Fund			**$ 20,550,000**	**$ 175,071**	**$ 20,725,071**	**$ -**	
Tobacco Settlement Trust Fund							
Lewis and Clark Rural Water	Pass thru to Lewis & Clark Rural Water Association for development.	100%	$ 2,500,000		$ 2,500,000		Complete
Total Tobacco Settlement Trust Fund			**$ 2,500,000**	**$ -**	**$ 2,500,000**	**$ -**	
FY 07 Appropriation							
Rebuild Iowa Infrastructure Fund							
Lake Darling Shelter	To build a shelter at Lake Darling.		$ 250,000	$ 426,390	$ 616,643	$ 59,747	June, 2008
Iowa Special Areas	To permanently protect a unique natural area (Anglers Bay in Spirit Lake) by matching private donations to acquire the land for the state.		$ 1,500,000	$ -	$ 1,500,000	$ -	Complete
Total Rebuild Iowa Infrastructure Fund			**$ 1,750,000**	**$ 426,390**	**$ 2,116,643**	**$ 59,747**	
Environment First Fund							
Water Quality and Keepers of the Land	Supports the Keepers of the Land Program with the goal of making it easy for Iowans to volunteer and become involved as advocates for Iowa's natural resources.	100%	$ 100,000	$ -	$ 100,000	$ -	Complete

Iowa Department of Natural Resources
Funding Report
December 31, 2007

Appropriation Name	Description of Project	Progress	Total Estimated Cost	Additional Funding	Funds Expended	Funds Obligated	Estimated Completion Date
Marine Fuel Tax	Supports the established program that improves the quality of lakes and other boating areas, increases access points and develops them for safe and appropriate use, and makes other boating safety and recreation related improvements.	77%	$ 2,500,000		$ 1,915,530	$ 584,470	Complete
Air Quality Livestock Monitoring	Supports field study of hydrogen sulfide and ammonia near confined animal feeding operations and work on development of a database for animal feeding operations.	100%	$ 275,000	$ -	$ 275,000	$ -	Complete
Rhodes Tire Reclamation	Supplemented waste stockpile abatement funds to finish the clean-up of a waste stockpile in Rhodes. 1,386,333 tires were removed from the site.	100%	$ 50,000	$ -	$ 50,000	$ -	Complete
State Park Maintenance	Supports the Park's Bureau facility and grounds maintenance costs, equipment costs to maintain the facilities and grounds, and a portion of facility maintenance staff costs, primarily in the form of summer workers.	100%	$ 2,000,000	$ -	$ 2,000,000	$ -	Complete
GIS Watershed Managers	Supports the development, acquisition, and analysis of geographic and demographic data for resource management.	100%	$ 195,000		$ 195,000	$ -	Complete
Water Quality Monitoring	Supports water quality monitoirng which enables the Department to assess the quality of our water and extent of water quality problems, determine wheter watershed improvements were effective, and identify new threats to and emerging issues in Iowa's water quality.	100%	$ 2,955,000		$ 2,955,000	$ -	Complete
Water Quality Protection	Supports the public drinking water supply program by providing a match for federal funds.	100%	$ 500,000		$ 500,000	$ -	Complete
Lake Restoration	Supports the established program that restores deteriorated lake water quality and improves fishing, swimming, boating and other recreational activities on lakes across Iowa.	100%	$ 975,000		$ 369,759	$ 605,241	June, 2008
Resource Enhancement and Protection	Allows for sustainable funding for natural resource protection, cultural resource enhancement and protection and outdoor recreation enhancement at all levels of state government: state, county and city.	100%	$ 11,000,000		$ 11,000,000	$ -	Complete

Iowa Department of Natural Resources
Funding Report
December 31, 2007

Appropriation Name	Description of Project	Progress	Total Estimated Cost	Additional Funding	Funds Expended	Funds Obligated	Estimated Completion Date
Total Environment First Fund			**$ 20,550,000**	**$ -**	**$ 19,360,289**	**$ 1,189,711**	
Tobacco Settlement Trust Fund							
State Parks Health and Safety	Update and bring water supply, wastewater systems and electrical campground systems in Iowa's state parks into compliance, in line with the environmental audit of all parks.	100%	$ 1,000,000	$ 121,890	$ 1,121,890	$ -	Complete
Lake Water Quality Improvement	To improve lake water quality across the state by following the comprehensive lakes plan of prioritized projects. The targeted plan mandates feasibility studies, watershed improvements and local community support and funding.	80%	$ 8,600,000	$ 36,273	$ 6,912,364	$ 1,723,909	June, 2008
Total Tobacco Settlement Trust Fund			**$ 9,600,000**	**$ 158,163**	**$ 8,034,254**	**$ 1,723,909**	

DEPARTMENT OF PUBLIC DEFENSE

Infrastructure Appropriations Act Report (per HF 2782)

Prepared for:
Transportation, Infrastructure, and Capitals Appropriations Subcommittee
Legislative Services Agency
Department of Management
Capital Projects Committee of the Legislative Council

Prepared by:
Joanne Andersen, Accountant
Iowa Department of Public Defense

Date: 01/15/08

Project description:
Camp Dodge Armed Forces Readiness Center (AFRC)
(DPD orgn 15D0/15D8)

Progress of work completed: 40% complete

Estimated Completion date: Dec 2008

Funding Source:	Fund	Budgeted/ Appropriated	Actual Exp as of 12/31/07	Funds Obligated	Est Projections	Total Est Cost of the Project
Rebuild Ia Infrastructure Fund	0017	150,000.00	8,995.83		141,004.17	150,000.00
Vertical Infrastructure Fund	0099					0.00
Tobacco Settlement Trust Fund	0198					0.00
Endow Health Restricted Capitals Fund	0942					0.00
Technology Reinvestment Fund	0943					0.00
General Fund Appropriation R31	0001					0.00
National Guard Facility Impr Fund	0171					0.00
Federal Funds		37,000,000.00	18,157,327.00		18,842,673.00	37,000,000.00
Camp Dodge AFRC Total		**37,150,000.00**	**18,166,322.83**	**0.00**	**18,983,677.17**	**37,150,000.00**

Filename: jandersen/excel/Legislative report_special approps

Project description:
Iowa City Readiness Center
(DPD project #000105)

Progress of work completed: Bid phase

Estimated Completion date: May 2010

Funding Source:	Fund	Budgeted/ Appropriated	Actual Exp as of 12/31/07	Funds Obligated	Est Projections	Total Est Cost of the Project
Rebuild Ia Infrastructure Fund	0017	3,545,000.00	583,441.89	16,684.86	2,944,873.25	3,545,000.00
Vertical Infrastructure Fund	0099					0.00
Tobacco Settlement Trust Fund	0198					0.00
Endow Health Restricted Capitals Fund	0942	1,444,288.00			1,444,288.00	1,444,288.00
Technology Reinvestment Fund	0943					0.00
General Fund Appropriation R31	0001					0.00
National Guard Facility Impr Fund	0171					0.00
Federal Funds		12,600,000.00	1,068,249.60		11,531,750.40	12,600,000.00
Iowa City Readiness Center Total		**17,589,288.00**	**1,651,691.49**	**16,684.86**	**15,920,911.65**	**17,589,288.00**

******* ********** **********

Project description:
Camp Dodge Water System Improvement
(DPD project #000119/000156)

Progress of work completed: 85% complete

Estimated Completion date: Jul 2008

Funding Source:	Fund	Budgeted/ Appropriated	Actual Exp as of 12/31/07	Funds Obligated	Est Projections	Total Est Cost of the Project
Rebuild Ia Infrastructure Fund	0017	554,528.00	193,987.62	265,019.16	95,521.22	554,528.00
Vertical Infrastructure Fund	0099	1,950,955.05	1,950,955.05			1,950,955.05
Tobacco Settlement Trust Fund	0198	762,553.61	762,553.61			762,553.61
Endow Health Restricted Capitals Fund	0942					0.00
Technology Reinvestment Fund	0943					0.00
General Fund Appropriation R31	0001	29,532.29	29,532.29			29,532.29
National Guard Facility Impr Fund	0171					0.00
Federal Funds		2,275,000.00	2,274,090.87	0.00	909.13	2,275,000.00
Camp Dodge Water Syst Imp Total		**5,572,568.95**	**5,211,119.44**	**265,019.16**	**96,430.35**	**5,572,568.95**

******* ********** **********

Filename: jandersen/excel/Legislative report_special approps

Project description:

Waterloo Aviation Readiness Center
(DPD project #000155)

Progress of work completed: 15% complete

Estimated Completion date: Jul 2008

Funding Source:	Fund	Budgeted/ Appropriated	Actual Exp as of 12/31/07	Funds Obligated	Est Projections	Total Est Cost of the Project
Rebuild Ia Infrastructure Fund	0017	500,000.00			500,000.00	500,000.00
Vertical Infrastructure Fund	0099	195.02	195.02			195.02
Tobacco Settlement Trust Fund	0198	399,000.00	399,000.00			399,000.00
Endow Health Restricted Capitals Fund	0942	1,236,000.00	5,975.29	1,087,071.62	142,953.09	1,236,000.00
Technology Reinvestment Fund	0943					0.00
General Fund Appropriation R31	0001					0.00
National Guard Facility Impr Fund	0171					0.00
Federal Funds		1,500,000.00	250,078.91		1,249,921.09	1,500,000.00
Waterloo Aviation Readiness Total		**3,635,195.02**	**655,249.22**	**1,087,071.62**	**1,892,874.18**	**3,635,195.02**

******* ********** **********

Project description:

Spencer Readiness Center Renovation
(DPD project #000161)

Progress of work completed: 10% complete

Estimated Completion date: Mar 2009

Funding Source:	Fund	Budgeted/ Appropriated	Actual Exp as of 12/31/07	Funds Obligated	Est Projections	Total Est Cost of the Project
Rebuild Ia Infrastructure Fund	0017					0.00
Vertical Infrastructure Fund	0099					0.00
Tobacco Settlement Trust Fund	0198					0.00
Endow Health Restricted Capitals Fund	0942	689,000.00	230,640.67	413,805.00	44,554.33	689,000.00
Technology Reinvestment Fund	0943					0.00
General Fund Appropriation R31	0001	58.11	58.11			58.11
National Guard Facility Impr Fund	0171					0.00
Federal Funds		1,241,415.00	58.10		1,241,356.90	1,241,415.00
Spencer Readiness Center Total		**1,930,473.11**	**230,756.88**	**413,805.00**	**1,285,911.23**	**1,930,473.11**

******* ********** **********

Project description:

Eagle Grove Readiness Center Addition
(DPD project #000147)

Progress of work completed: 70% complete

Estimated Completion date: Jun 2008

Funding Source:	Fund	Budgeted/ Appropriated	Actual Exp as of 12/31/07	Funds Obligated	Est Projections	Total Est Cost of the Project
Rebuild Ia Infrastructure Fund	0017	400,500.00	396,300.00	3,700.00	500.00	400,500.00
Vertical Infrastructure Fund	0099	7,581.05	7,581.05			7,581.05
Tobacco Settlement Trust Fund	0198	5,915.00	5,915.00			5,915.00
Endow Health Restricted Capitals Fund	0942					0.00
Technology Reinvestment Fund	0943					0.00
General Fund Appropriation R31	0001	2,993.18	2,993.18			2,993.18
National Guard Facility Impr Fund	0171					0.00
Federal Funds		299,464.00	39,251.17		260,212.83	299,464.00
Eagle Grove Readiness Center Total		**716,453.23**	**452,040.40**	**3,700.00**	**260,712.83**	**716,453.23**

******* ********** **********

Project description:
Gold Star Museum Addition
(DPD project #000193)

Progress of work completed: 0% complete

Estimated Completion date:

Funding Source:	Fund	Budgeted/ Appropriated	Actual Exp as of 12/31/07	Funds Obligated	Est Projections	Total Est Cost of the Project
Rebuild Ia Infrastructure Fund	0017	1,000,000.00		198,450.00	801,550.00	1,000,000.00
Vertical Infrastructure Fund	0099					0.00
Tobacco Settlement Trust Fund	0198					0.00
Endow Health Restricted Capitals Fund	0942					0.00
Technology Reinvestment Fund	0943					0.00
General Fund Appropriation R31	0001					0.00
National Guard Facility Impr Fund	0171					0.00
Federal Funds						0.00
Gold Star Museum Total		**1,000,000.00**	**0.00**	**198,450.00**	**801,550.00**	**1,000,000.00**

******* ********** **********

Project description:
Law Enforcement/National Guard Shoothouse

(DPD project #000162)

Progress of work completed: 95% complete

Estimated Completion date: Apr 2008

Funding Source:	Fund	Budgeted/ Appropriated	Actual Exp as of 12/31/07	Funds Obligated	Est Projections	Total Est Cost of the Project
Rebuild Ia Infrastructure Fund	0017	500,000.00	384,821.59	65,401.35	49,777.06	500,000.00
Vertical Infrastructure Fund	0099	24.67	24.67			24.67
Tobacco Settlement Trust Fund	0198	145,689.94	145,689.94			145,689.94
Endow Health Restricted Capitals Fund	0942					0.00
Technology Reinvestment Fund	0943					0.00
General Fund Appropriation R31	0001					0.00
National Guard Facility Impr Fund	0171					0.00
Federal Funds		750,172.43	750,172.43			750,172.43
Shoothouse Total		**1,395,887.04**	**1,280,708.63**	**65,401.35**	**49,777.06**	**1,395,887.04**

******* ********** **********

Project description:

Newton Readiness Center Addition
(DPD project #000146)

Progress of work completed: Design phase

Estimated Completion date: Jan 2011

Funding Source:	Fund	Budgeted/ Appropriated	Actual Exp as of 12/31/07	Funds Obligated	Est Projections	Total Est Cost of the Project
Rebuild Ia Infrastructure Fund	0017	400,000.00	6,356.45	5,658.75	387,984.80	400,000.00
Vertical Infrastructure Fund	0099					0.00
Tobacco Settlement Trust Fund	0198	18,000.00	18,000.00			18,000.00
Endow Health Restricted Capitals Fund	0942					0.00
Technology Reinvestment Fund	0943					0.00
General Fund Appropriation R31	0001					0.00
National Guard Facility Impr Fund	0171					0.00
Federal Funds		275,000.00	18,000.00		257,000.00	275,000.00
Newton Readiness Center Total		**693,000.00**	**42,356.45**	**5,658.75**	**644,984.80**	**693,000.00**

******* ********** **********

Project description:

Ottumwa Readiness Center Addition
(DPD project #000174)

Progress of work completed: Bid phase

Estimated Completion date: Oct 2009

Funding Source:	Fund	Budgeted/ Appropriated	Actual Exp as of 12/31/07	Funds Obligated	Est Projections	Total Est Cost of the Project
Rebuild Ia Infrastructure Fund	0017	1,000,000.00	115.00		999,885.00	1,000,000.00
Vertical Infrastructure Fund	0099	67,906.90	67,906.90			67,906.90
Tobacco Settlement Trust Fund	0198					0.00
Endow Health Restricted Capitals Fund	0942					0.00
Technology Reinvestment Fund	0943					0.00
General Fund Appropriation R31	0001	48.26	48.26			48.26
National Guard Facility Impr Fund	0171					0.00
Federal Funds		750,000.00	67,548.26		682,451.74	750,000.00
Ottumwa Readiness Center Total		**1,817,955.16**	**135,618.42**	**0.00**	**1,682,336.74**	**1,817,955.16**

******* ********** **********

Project description:

Major Maintenance National Guard Facilities

Progress of work completed: Various projects in process

Estimated Completion date: Varies by project

Funding Source:	Fund	Budgeted/ Appropriated	Actual Exp as of 12/31/07	Funds Obligated	Est Projections	Total Est Cost of the Project
Rebuild Ia Infrastructure Fund	0017	1,614,751.00	232,143.23	228,135.28	1,154,472.49	1,614,751.00
Vertical Infrastructure Fund	0099	1,182,773.31	915,898.67		266,874.64	1,182,773.31
Tobacco Settlement Trust Fund	0198	1,317,841.45	1,291,045.11		26,796.34	1,317,841.45
Endow Health Restricted Capitals Fund	0942					0.00
Technology Reinvestment Fund	0943					0.00
General Fund Appropriation R31	0001	504,757.88	357,629.53	147,128.35		504,757.88
National Guard Facility Impr Fund	0171	110,464.24	110,464.24			110,464.24
Federal Funds		7,350,000.00	7,245,762.44	65,422.55	38,815.01	7,350,000.00
Major Maintenance Total		**12,080,587.88**	**10,152,943.22**	**440,686.18**	**1,486,958.48**	**12,080,587.88**

****

Project description:

STARCOMM - facility to house a backup Emergency Operations Center
(DPD orgn 22D7/24D7)

Progress of work completed: 15% complete

Estimated Completion date: Jul 2009

Funding Source:	Fund	Budgeted/ Appropriated	Actual Exp as of 12/31/07	Funds Obligated	Est Projections	Total Est Cost of the Project
Rebuild Ia Infrastructure Fund	0017	2,000,000.00	122,187.79		1,877,812.21	2,000,000.00
Vertical Infrastructure Fund	0099					0.00
Tobacco Settlement Trust Fund	0198					0.00
Endow Health Restricted Capitals Fund	0942	600,000.00	600,000.00			600,000.00
Technology Reinvestment Fund	0943					0.00
General Fund Appropriation R31	0001					0.00
National Guard Facility Impr Fund	0171					0.00
Federal Funds						0.00
STARCOMM Total		**2,600,000.00**	**722,187.79**	**0.00**	**1,877,812.21**	**2,600,000.00**

******* ********** **********

Project description:

Technology Upgrades Iowa National Guard
(DPD orgn 23D7)

Progress of work completed: 90% complete; Websense Software installation pending

Estimated Completion date: Jun 2008

Funding Source:	Fund	Budgeted/ Appropriated	Actual Exp as of 12/31/07	Funds Obligated	Est Projections	Total Est Cost of the Project
Rebuild Ia Infrastructure Fund	0017					0.00
Vertical Infrastructure Fund	0099					0.00
Tobacco Settlement Trust Fund	0198					0.00
Endow Health Restricted Capitals Fund	0942					0.00
Technology Reinvestment Fund	0943	75,000.00	60,747.95		14,252.05	75,000.00
General Fund Appropriation R31	0001					0.00
National Guard Facility Impr Fund	0171					0.00
Federal Funds						0.00
National Guard Tech Upgrades Total		**75,000.00**	**60,747.95**	**0.00**	**14,252.05**	**75,000.00**

******* ********** **********

Project description:

DPD Technology Upgrades
(DPD orgn 23D8)

Progress of work completed: 40% complete

Estimated Completion date: Jun 2009

Funding Source:	Fund	Budgeted/ Appropriated	Actual Exp as of 12/31/07	Funds Obligated	Est Projections	Total Est Cost of the Project
Rebuild Ia Infrastructure Fund	0017					0.00
Vertical Infrastructure Fund	0099					0.00
Tobacco Settlement Trust Fund	0198					0.00
Endow Health Restricted Capitals Fund	0942					0.00
Technology Reinvestment Fund	0943	111,000.00	12,174.56	23,082.43	75,743.01	111,000.00
General Fund Appropriation R31	0001					0.00
National Guard Facility Impr Fund	0171					0.00
Federal Funds						0.00
National Guard Tech Upgrades Total		**111,000.00**	**12,174.56**	**23,082.43**	**75,743.01**	**111,000.00**

******* ********** **********

TOTAL FOR ALL PROJECTS

Funding Source:	Fund	Budgeted/ Appropriated	Actual Exp as of 12/31/07	Funds Obligated	Est Projections	Total Est Cost of the Projects
Rebuild Ia Infrastructure Fund	0017	11,664,779.00	1,928,349.40	783,049.40	8,953,380.20	11,664,779.00
Vertical Infrastructure Fund	0099	3,209,436.00	2,942,561.36	0.00	266,874.64	3,209,436.00
Tobacco Settlement Trust Fund	0198	2,649,000.00	2,622,203.66	0.00	26,796.34	2,649,000.00
Endow Health Restricted Capitals Fund	0942	3,969,288.00	836,615.96	1,500,876.62	1,631,795.42	3,969,288.00
Technology Reinvestment Fund	0943	186,000.00	72,922.51	23,082.43	89,995.06	186,000.00
General Fund Appropriation R31	0001	537,389.72	390,261.37	147,128.35	0.00	537,389.72
National Guard Facility Impr Fund	0171	110,464.24	110,464.24	0.00	0.00	110,464.24
Federal Funds		64,041,051.43	29,870,538.78	65,422.55	34,105,090.10	64,041,051.43
Total for All Projects		**86,367,408.39**	**38,773,917.28**	**2,519,559.35**	**45,073,931.76**	**86,367,408.39**

STARCOMM

House File 2782 Rebuild Iowa Infrastructure Fund (RIIF) and House File 2782 Endowment for Iowa's Health Restricted Capital Fund (EIHRCF) for the construction and alteration of the existing Western Iowa Tech community College buildings at the Sioux City campus for Starcomm project. The project will provide design, labor material and equipment necessary to construct a new facility and renovate an adjacent building to house the STARCOMM interoperable communications equipment and to provide an appropriate training campus to enhance student learning the program areas of emergency dispatch, emergency disaster management, interoperable communication and information systems security.

- The STARCOMM project is a 3-year appropriation.
- Total projected cost = $5.2M.
- Allocation amounts by SFY:
    - 7/1/2006 (SFY07) = $1.6M -- $1M RIIF and $.6M EIHRCF
    - 7/1/2007 (SFY08) = $2M -- RIIF
    - 7/1/2008 (SFY09) = $1.6M -- RIIF
- Based on dollars spent for the project as a whole would equate to about 13.9% complete at 12/31/2007.

6/30/2012 to complete the project (based on language from the appropriation bill – to spend the SFY09 allocation)

Woodbury County current projection for completion is 6/30/2009.

- Estimated spending $2M during SFY08 and
- Estimated spending $1M during SFY09; leaving an estimated $1M to be carried forward to SFY09.

BOARD OF REGENTS

Governing Iowa's public universities and special schools

University of Iowa
Iowa State University
University of Northern Iowa
Iowa School for the Deaf
Iowa Braille and Sight Saving School
Lakeside Lab Regents Resource Center
Quad-Cities Graduate Center
Southwest Iowa Regents Resource Center
Tri-State Graduate Center

BOARD OF REGENTS
STATE OF IOWA

David W. Miles, President, *West Des Moines*
Bonnie J. Campbell, *Des Moines*
Jenny L. Connolly, *Cedar Falls*
Robert N. Downer, *Iowa City*
Jack B. Evans, *Cedar Rapids*
Michael G. Gartner, *Des Moines*
Ruth R. Harkin, *Cumming*
Craig A. Lang, *Brooklyn*
Rose A. Vasquez, *Des Moines*

Andrew J. Baumert, *Interim Executive Director*

January 10, 2008

Charles Krogmeier, Director
Department of Management
State Capitol

Dennis C. Prouty, Director
Legislative Services Agency
State Capitol

Re: FY 2008 Infrastructure Appropriations Annual Report

Dear Mr. Krogmeier and Mr. Prouty:

As required by 2006 Legislative Acts, Chapter 1179 (HF 2782) and amended by 2007 Legislative Acts, Chapter 219 (HF 911), attached is the report which lists the status of all capital projects completed or in progress at the Regent institutions (as of December 15, 2007) which received FY 2007 and FY 2008 appropriations from this legislation. The table on the next page lists each appropriation and identifies the corresponding attachment.

If you have any questions or need more information, please don't hesitate to contact this office.

Sincerely,

Andrew J. Baumert

H:\BF\Legislative\2007 Session\Responses\reynolds_HF2782report122206.doc
Attachment (8)
cc: Marcia Tannian, LSA
Dick Oshlo, DOM
Legislative Liaisons
Legislative Log

11260 Aurora Avenue • Urbandale, Iowa 50322-7905 • Phone 515-281-3934 • Fax 515-281-6420
www.state.ia.us/educate/regents

Rebuild Iowa Infrastructure Fund
(HF 2782, Sec. 33)

Tuition Replacement	$ 10,329,981	Debt service, not a capital project.
Economic Development	8,200,000	Separate attachment per university.
Batelle Funds	1,800,000	Separate attachment per university.
Batelle Funds - Endowments and Salaries	5,000,000	Separate attachment per university.
Iowa State University - Protein Processing Plant	1,000,000	Part of ISU spreadsheet.
University of Iowa - Hygienic Lab FY 2007	8,350,000	Part of SUI spreadsheet.
University of Iowa - Hygienic Lab FY 2008	15,650,000	Part of SUI spreadsheet.
Iowa State University - Vet Lab	2,000,000	Part of ISU spreadsheet.
Renovation and Repair - $6,200,000 total		
University of Iowa	2,557,500	Part of SUI spreadsheet.
Iowa State University	2,480,000	Part of ISU spreadsheet.
University of Northern Iowa	1,162,500	Part of UNI spreadsheet.
University of Northern Iowa - Playground Safety	500,000	Part of UNI spreadsheet.

Vertical Infrastructure Fund
(HF 2782, Sec. 35)

Batelle Funds - Economic Development	5,000,000	Separate attachment per university.

Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund
(HF 2782, Sec. 19)

University of Iowa - College of Public Health	2,000,000	Part of SUI spreadsheet.
Iowa State University - Chemistry Building	5,000,000	Part of ISU spreadsheet.
University of Northern Iowa - Upgrades to Electrical Distribution System	3,000,000	Part of UNI spreadsheet.

LEGISLATIVE CROSS REFERENCES
Environment First Fund (HF 2782, Sec. 34)

Restricted Capitals Fund of the Tobacco Settlement Trust Fund
(HF 2782, Sec. 38)

Technology Reinvestment Fund
(HF 2782, Sec. 23)

Appropriations for FY 2007 and FY 2008 - HF 2782
Summary

Rebuild Iowa Infrastructure Fund (HF 2782, Sec. 33)		
Tuition Replacement	$ 10,329,981	Debt service, not a capital project.
Economic Development	8,200,000	Separate attachment per university.
Batelle Funds	1,800,000	Separate attachment per university.
Batelle Funds - Endowments and Salaries	5,000,000	Separate attachment per university.
Iowa State University - Protein Processing Plant	1,000,000	Part of ISU spreadsheet.
University of Iowa - Hygienic Lab FY 2007	8,350,000	Part of SUI spreadsheet.
University of Iowa - Hygienic Lab FY 2008	15,650,000	Part of SUI spreadsheet.
Iowa State University - Vet Lab	2,000,000	Part of ISU spreadsheet.
Renovation and Repair - $6,200,000 total		
University of Iowa	2,557,500	Part of SUI spreadsheet.
Iowa State University	2,480,000	Part of ISU spreadsheet.
University of Northern Iowa	1,162,500	Part of UNI spreadsheet.
University of Northern Iowa - Playground Safety	500,000	Part of UNI spreadsheet.
Vertical Infrastructure Fund (HF 2782, Sec. 35)		
Batelle Funds - Economic Development	5,000,000	Separate attachment per university.
Endowment for Iowa Health Account Restricted Capitals Fund of the Tobacco Settlement Trust Fund (HF 2782, Sec. 19)		
University of Iowa - College of Public Health	2,000,000	Part of SUI spreadsheet.
Iowa State University - Chemistry Building	5,000,000	Part of ISU spreadsheet.
University of Northern Iowa - Upgrades to Electrical Distribution System	3,000,000	Part of UNI spreadsheet.

LEGISLATIVE CROSS REFERENCES
Environment First Fund (HF 2782, Sec. 34)

Restricted Capitals Fund of the Tobacco Settlement Trust Fund (HF 2782, Sec. 38)

Technology Reinvestment Fund (HF 2782, Sec. 23)

University of Iowa - as of December 15, 2007

	FY 2007 Appropriation	FY 2008 Appropriation	FY 2009 Appropriation
Hygienic Lab	$8,350,000	$15,650,000	$12,000,000
Renovation and Repair Needs (allocation to University of Iowa)	$2,557,500		
College of Public Health	$2,000,000		

Description of Project	Progress of Work Completed	Total Estimated Cost of Project	Revenue Sources for Funding Project	Revenue Amounts	State Funds Obligated, but not expended as of 12/15/2007 (signed contracts or agreements)	State Funds Expended as of 12/15/2007	Estimated Completion Date of Project
Hygienic Lab This project will construct a new facility located on the Oakdale campus at the corner of Oakdale Blvd and Hwy 965. The project will house all of the existing UHL from Oakdale Hall plus add a couple new areas currently not located in Oakdale Hall.	Construction bids received 12/13/07	$37,750,000	FY 2007 State Appropriations (RIIF) FY 2008 State Appropriations (RIIF) FY 2009 State Appropriations (RIIF) Federal Grant Hygienic Lab Income	$8,350,000 $15,650,000 $12,000,000 $1,400,000 $350,000	$4,022,442 in January 2008	$1,594,440	Fall 2009
Renovation and Repair Needs (allocation to University of Iowa**)** Maintenance, system upgrades, or repairs including those that were deferred to a future budget cycle or postponed until funding became available.	In Construction	$2,557,500	FY 2007 State Appropriations (RIIF)	$2,557,500	$308,592	$2,248,908	June 2008
College of Public Health The building would consist of two wings with a total of five levels each (one underground level and four levels above grade). Four of the College's academic departments (Health Management and Policy, Community/Behavioral Health, Epidemiology, and Biostatistics) would occupy the facility upon its completion.	In Design	$47,700,000	FY 2007 State Appropriations (RCF) Federal Grant Gifts/Earnings/Revenue Bonds	$2,000,000 $3,000,000 $24,000,000		$2,000,000	Fall 2011

Iowa State University - as of December 15, 2007

	FY 2007 Appropriation
Veterinary Lab	$ 2,000,000
Protein Processing Plant	$ 1,000,000
Renovation and Repair Needs (allocation to Iowa State University)	$ 2,480,000
Chemistry Building	$ 5,000,000

Description of Project	Progress of Work Completed	Total Estimated Cost of Project	Revenue Sources for Funding Project	Revenue Amounts	State Funds Obligated, but not expended as of 12/15/2007 (signed contracts or agreements)	State Funds Expended as of 12/15/2007	Estimated Completion Date of Project
Veterinary Lab							
1) Construction of a Biosafety Level 3 laboratory at the Vet Diagnostic Lab	Design	$1,861,900	FY 2007 State Appropriations (RIIF)	$1,000,000		$0	June-08
			Private Funds	$113,666			
			Iowa State Research Foundaton	$660,000			
2) Improvements/equipment		$1,000,000	IDED - Iowa Values Fund	$88,234			
			FY 2007 State Appropriations (RIIF)	$1,000,000		$1,000,000	June-08
These funds have been allocated to support the development of a biosecurity level 3 laboratory (BSL3) to be used for research and diagnostic purposes and to renovate VDL laboratory space and update equipment to provide comprehensive diagnostic services and expand disease surveillance programs.							
Protein Processing Plant	Design	$19,000,000	FY 2007 State Appropriations (RIIF)	$1,000,000	$278,302	$494,057	October-08
Planning underway to incorporate/modify the facility to be part of the biorenewables program			IDED - Iowa Values Fund	$3,314,000			
			Federal Small Business Administration	$3,671,525			
			Private Funds	$11,014,475			
Renovation and Repair Needs (allocation to Iowa State University**)**	Completed	$2,480,000	FY 2007 State Appropriations (RIIF)	$2,480,000		$2,480,000	June-07
Maintenance, system upgrades, or repairs including those that were deferred to a future budget cycle or postponed until funding became available.							
Chemistry Building	In Design	$74,500,000	FY 2007 State Appropriations (RCF)	$5,000,000	$2,892,519	$2,107,481	December-10
The project would provide additional, new space to meet the needs of the Department of Chemistry; the facilities would supplement space in Gilman Hall.			FY 2008 Academic Building Revenue Bonds. Authority granted HF920	$53,900,000			
			Private Funds $15,600,000	$15,600,000			

University of Northern Iowa - as of December 15, 2007

	FY 2007 Appropriation
Renovation and Repair Needs	$ 1,162,500
Electrical Distribution Loop System/Load-Break Switches, Phase 1	$ 3,000,000
Iowa Safe Surfacing Project - National Program Playground Safety	$ 500,000

Description of Project	Progress of Work Completed	Total Estimated Cost of Project	Revenue Sources for Funding Project	Revenue Amounts	State Funds Obligated, but not expended as of 12/15/2007 (signed contracts or agreements)	State Funds Expended as of 12/15/2007	Estimated Completion Date of Project
Renovation and Repair Needs (allocation to University of Northern Iowa) Maintenance, system upgrades, or repairs including those that were deferred to a future budget cycle or postponed until funding became available.	Complete	$1,162,500	FY 2007 State Appropriations (RIIF)	$1,162,500		$1,162,500	June-07
Electrical Distribution Loop System/Load-Break Switches Phase 1 This project is part of a phased project to add cabling and sectionalized switches to the electrical distribution system to further improve the loop system. The project will convert the outdated 4,160 volt loop to a 12,470 volt loop system, replace outdated 12,470 volt cables, and make improvements at the Power Plant.	In construction	$3,000,000	FY 2007 State Appropriations (RCF)	$3,000,000	$1,249,743	$1,750,257	December-08
Iowa Safe Surfacing Project - National Program for Playground Safety The purpose is to provide safe play environments for children in elementary schools and child care centers by providing education about playground safety for the individuals who work in those centers and rubber tile surfacing.	In process of closing	$500,000	FY 2007 State Appropriations (RIIF)	$500,000	$8,978	$491,022	February-08

IOWA STATE UNIVERSITY
BATTELLE UPDATE: July 01, 2007 – December 31, 2007

EXECUTIVE SUMMARY

Platform	Expenditures	Total Allocation	Project Allocation	Project Obligated	Infrastructure Allocation	Infrastructure Obligation
Advanced Food & Feed	$ 10,037	$ 857,572	$ 507,572	$ 350,000	$ -	$ -
Advanced Manufacturing		$ 100,000	$100,000	$ -	$ -	$ -
Animal Systems	$ 302,699	$ 626,000	$ 579,000	$ -	$ 47,000	$ -
Bioeconomy	$ 1,058,662	$ 2,164,666	$ 1,054,666	$ -	$ 1,008,000	$ 102,000
Biosecurity	$ 376,826	$ 944,200	$ 450,000	$ -	$ 271,000	$ 223,200
Information Technology	$ 663,546	$ 1,718,800	$ 650,000	$ -	$ 1,068,800	$ -
Total	**$ 2,411,740**	**$6,411,238**	**$ 3,341,238**	**$ 350,000**	**$ 2,394,800**	**$ 325,200**

Endowed Chairs
ISU $2 million in funding to be used for matching dollars for endowed chairs. April 2007, the ISU Foundation received $1M in private funds from Dr. Eugene and Linda Lloyd to create the W. Eugene Lloyd Chair in Toxicology in the College of Veterinary Medicine. This endowment was matched with $500,000 from Battelle funds. A national search was done for this position and an offer is pending.

Advanced Food & Feed
The Nutrition and Wellness Research Center renovation was completed in April 2007. Several human studies are ongoing/completed in theNWRC. The completed studies were sponsored by industry partners. In September 2007, Dr. Diane Birt was named Interim Director of the NWRC and Administrative Specialist was hired. The search for a Director will begin in spring 2008. A fee structure for clinical research has been developed, a steering committee for research activities has organized, and financial goals and plans have been established. A clinical project manager is being hired to oversee and manage human subject research projects.

Advanced Manufacturing
We continue to partner with John Deere to provide lean training to some of their suppliers. We have been funded by EDA to investigate biobased product supply chains. We are looking at a simplified approach to analyzing clusters/supply chains to rank Iowa. We are nearing completion of the ag equipment supply chain proposal. We created a Supply Chain Advisory Committee from members of the CIRAS Advisory Council.

Animal Systems
Project and Infrastructures funds are being used to support two research projects.

The first project supports research using the pig as an animal model to predict bone disorders in pigs and humans. In this period, a total of 432 single nucleotide polymorphisms (SNPs) were identified in 174 porcine genes affecting skeletal development and mineral metabolism. A bone marrow culture system is being developed to conduct *in vitro* functional studies. This research helps to establish the pig as a model for human bone research. Platform leader has met with groups concerning commercial activities in Iowa. One new company, Gold Dragon Research has located in the ISU Research Park.

The second project supports research in large animal based on neurologic and ophthalmologic diseases. Engineered proteins have been evaluated *in vitro* and in mice. Studies to test protection of mice from disease have begun. Female beagle stock have been acquired and this model will be brought into the research colony by insemination. A feline congenital glaucoma model is being maintained. Work has begun on developing a whole genome scan mapping technique.

Infrastructure funds have allowed for the improvement of facilities in the Kildee Hall Animal Facilities to allow expanded housing of canine and feline models. Specifically a biosecurity airlock foyer has been constructed, unsealed concrete floors have been epoxy sealed, and walls repainted. Caging for dog housing in the facility have been installed, and dogs have been on sight in the new facilities since August of 2007.

Biosecurity

Project and Infrastructures funds are being used to support two research projects. Additional infrastructure funds are being utilized by the College of Vet Med and College of Agriculture for platform related needs.

The focus of the first project was to expand our knowledge and applications of methanobactin, an ISU discovery, and evaluate the antimicrobials in grape seed extract. Working with the ISU organic grape extension farm in Gilbert, IA we now have six different wine varieties and dried pomace (skin and seed). The antimicrobial properties will be evaluated on the Bioscreen using five strain cocktails. We expect to demonstrate superior health benefits and antimicrobial properties for Iowa grapes. Dr. Kalidas Shetty, Professor at University of Massachusetts, was an IFSS visiting professor this summer. His students worked to evaluate the antimicrobial properties of his enhanced plant extracts.

The Biosafety Level II research laboratory construction began September 2007. Most of the electrical and plumbing is close to completion. We reported last time that all the requested equipment has been purchased. The solvent hood and bioguard hoods installations are still in progress. Research lab benches will be fitted with working surfaces. If sufficient funds remain upon completion of the lab renovation, a customized anaerobic hood will be purchased and installed; the wiring and space will be ready for the equipment.

The Animal Traceability project began to address key barriers to electronic certification, such as reluctance of some auction markets to learn a new system. A Team of economists, transportation/logistics experts, and business specialists have begun a SWOT analysis of the business entities involved in this project to provide input to the business plan. Methods to incorporate the ILTP into the Iowa Department of Agriculture and the U.S. National Animal Identification Systems (NAIS) plans are still being discussed with IA Department of Agriculture. Additionally, GVL is working with USDA to develop their system consistent with the national program. Online version directed at the veterinary practice to comply with requirements of 'Green' and 'Gold' Preconditioning requirements is in final test and will be moved to production servers by early January 2008.

Bioeconomy

Project and Infrastructure funds are being used to support eight research projects (tasks) in addition to platform related infrastructure purchases made by the Colleges of Agricuture, Liberal Arts and Sciences, and Engineering.

Task 1. To produce syngas with properties that maximize growth and production of chemo-autotrophic microorganisms. A new gas cleanup system has been designed, the gasifier has been upgraded, the biomass feeder has been improved and the gasifier instrumentation is being replaced and repaired. Some repairs include replacing the existing data acquisition software to a new method to measure the overall volumetric syngas rate out of the gasifier. Finally, the safety equipment in the gasifier laboratory has also been upgraded.

Task 2 - Mass-Transfer Balance. In the past six months, different metal elements such as aluminum, titanium, zirconium and iron were introduced into the framework of MCM41 nanoparticles to adjust the surface

hydroxyl group characteristics. Preliminary results suggest the enhancement by salt addition is affected by the kind of metal ions and anions as well as their solution concentration. For most salts, the enhancement increased with salt concentration.

Task 3. A continuous syngas fermentation facility for the production of bio-plastic (polyhydroxy alkanoate) and bio-fuel (hydrogen) has been designed and constructed in Black Engineering. Gas flow control system installations have been completed. A clean laboratory room has been constructedto provide a proper environment for the wet chemistry required for the chemical and biological analysis of syngas fermentation. Infrastructure expenditures include: plumbing and flow controller system, spectrophotometer, fermentation system, clean room renovation, and electrical work

Task 4. The goal of this task is to examine an alternative route to ethanol production that avoids the high energy and water costs of distillation. Work conducted during this update period on genetically engineering *E. Coli* was aimed at improving acetaldehyde production by identifying and eliminating unwanted by-products.. and to genetically engineer *R. rubrum* for production of acetaldehyde from syngas. Based on results, we have begun work to genetically modify *R. rubrum* to prevent anaerobic acetaldehyde metabolism.

Task 5. Since the last report, we have assessed the effect of expressing each of these transgenes on PHA content in *R rubrum.* We are now expanding these characterizations to further understand the mechanisms by which PHA yields is controlled by these fermentation organisms.

Task 6. The original goal of building a new pyrolysis unit has been expanded with the receipt of $500,000 from U.S. DOE, to also purchase new feedstock preparation equipment and design and build more sophisticated bio-oil collection equipment. The reactor is being fabricated at the Chemistry Machine Shop and the cyclones are being built by Ames Lab. A new fractionating condenser system is currently being designed. A new laboratory is being set-up to characterize bio-oils. Infrastructure expenditures include: a 20kg Biomass Dryer/Humidifier, mercury porosimeter, microGC, and a hammer Mill Grinder.

Task 7. The goal of our task during the last six months has been focused on producing high-purity oleate esters from high-oleic soybean oil (HOSO). The purity of oleic acid in HOSO has been improved from 83.2% to 92.5% by means of low temperature crystallization. Different methods of filtration were examined to test the feasibility of scale-up. Our collaborators at UNI will evaluate the purified esters as lubricants.

Task 8. We have ordered a specially-designed high throughput reactor system consisting of 8 reactors that is due for delivery by February, 2008. The Battelle funds were leveraged with $23K from ConocoPhillips and a$29K equipment donation from Parr Instruments in purchasing this reactor system. Two bio-oil upgrading areas have been initiated through funding from ConocoPhillips. We have initiated research on reducing the organic acid content in bio-oil so as to make it more stable and transportable.

Information Solutions

On November 1st the CyberInnovation Institute hosted the Iowa Department of Economic Development's Information Technology Council. Doug Jacobson presented his plan for the "IT Adventures" program to be held spring 2008 in Hilton Coliseum. On November 13th the CyberInnovation Institute (CII) held its Industrial Advisory Board meeting. Continued infrastructure enhancement of CII space occurred. We secured our first startup companies using CII facilities, including Clearsighted, Inc., Visual Medical Solutions, and Concure Ltd. The Information Assurance Center, a founding member of the CII, moved all of its accounts to CII administration encompassing ten ongoing projects totaling $3.5M.

FULL REPORT

BATTELLE FUNDING: PROGRESS REPORT

Update Period: July 01, 2006 – December 31, 2006
Title: Large Animal Genomics Models for Animal and Human Health
Platform: Animal Systems
Platform Chair: Max F. Rothschild
Platform Expenditures: $302,698.54
Platform Funding: $626,000
Project Allocated: $579,000
Project Obligated: $ -
Inf. Allocated: $47,000
Inf. Obligated: $ -

PROJECT 1

Publications/presentations based on project:

1. Onteru, S.K., B. Fan, B. Mote, T. Serenius, M. Nikkilae, K. J. Stalder , M.F. Rothschild. SNP discovery in genes affecting leg health traits in pigs. 2007. Proc. International Symposium on Animal genomics for Animal Health, Paris, France, Oct. 23-25.

2. B. Fan., Onteru, S. K., B. Mote, T. Serenius, M. Nikkilae, K. J. Stalder, M. F. Rothschild. 2008. Association Of Genes Affecting Skeletal Design And Feet And Leg Soundness In Pigs. Plant and Animal Genome XVI Conference, San Diego, California, Jan. 12-16. (accepted)

3. Onteru, S. K., B. Fan, B. Mote, T. Serenius, M. Nikkilae, K. J. Stalder, M. F. Rothschild. 2008. Association of candidate genes to leg and body conformation traits in pigs. ASAS/ADSA Midwest Meeting, Des Moines, IA, Mar. 17-19. (submitted)

4. Onteru, S. K., B. Fan, B. Mote, T. Serenius, M. Nikkilae, K. J. Stalder, M. F. Rothschild. 2008. Determination of genes associated with leg and body conformation traits in pigs. Animal Industry Reports (submitted)

External funding applied for (indicate received/denied/pending):

Received

Association of genetic markers with structural soundness and sow longevity (M Rothschild, K Stalder)	National Pork Board	$86,000

Pending

Association of genetic markers with structural soundness and sow longevity year 2 (M Rothschild, K Stalder)	National Pork Board	$120,000

Progress Report (350 word maximum):
This grant supports research using the pig as an animal model to predict bone disorders in both pigs and humans. In this period, a total of 432 single nucleotide polymorphisms (SNPs) were identified in 174 porcine genes affecting skeletal development and mineral metabolism. By using the high-throughout Sequenom's MassARRAY system, 141 SNPs in 102 genes were successfully genotyped for 2066 commercial pigs which were scored for 17 traits describing various leg and feet and conformation conditions. Genotyping procedures were also implemented in the ISU Berkshire × Yorkshire (BY) resource family and 66 genes were mapped to the corresponding chromosome regions homologous to the human genome. The variability and normality of scoring data were tested for each trait. The association analyses were therefore carried out using mixed model procedures of SAS and over 61 genes showed significant associations with leg and body conformation traits. These genes are key molecules in the BMP, IGF1, TGFβ, FGF, cortisol, estradiol, Wnt, calcitonin, retinoic acid and interleukin signaling pathways. Genes such as COL1A2, COL2A1, CALCR, OPG, PTHR, APOE, IHH, MTHFR, WNT2 and WNT16 had high significant associations with leg movement and other bone traits. However, genes like LRP5, RANKL and VDR showed less interesting results. Some of these findings were presented as a poster in International Symposium on Animal Genomics for Animal Health held in France. Abstracts with new data were submitted to Plant and Animal Genome XVI Conference, 2008 and 2008 Midwestern section annual meeting. At present a bone marrow culture system is being developed and it can be utilized to conduct *in vitro* functional studies so the effect of gene SNPs on function can be explored in bone marrow cells. The genes having clear effects will be re-sequenced for SNP mining and the target SNPs will be determined. All this research helps to establish the pig as a model for human bone research. Platform leader Rothschild has met with new groups concerning expanded commercial activities in Iowa. One new company, Gold Dragon Research has now started in the research park thanks to efforts of Rothschild and other members of the animal sciences.

PROJECT 2

Progress Report (300 word maximum):

Work supported research in large animal based **1) neurologic and 2) ophthalmologic diseases**. A progress review follows:

Neurologic Conditions Goals

1. Develop a chaparonin base therapy for MPS IIIB. A Master's student has begun research. An extramural grant application to supplement this grant and an intramural seed money grant previously earned, is pending (decision due 2/1/2008. The goal is to generate preliminary data for NIH applications at the R03/R01 level.

2. Develop an enzyme fusion capable of crossing the blood brain barrier. Engineered proteins have been evaluated *in vitro* and in mice. Proteins are able to enter cells and function normally, and we can achieve with gene therapy up to 3 times normal activity in mice. Studies to test protection of mice from disease have begun, and if successful, will be tested in dogs as a pre-clinical evaluations.

3. Develop canine and feline mesenchymal stem cells to treat canine and feline models of human genetic diseases. Work is being conducted by Dr. Don Sakaguchi who has a funded graduate student in this area.

4. Develop a canine colony of GM1 gangliosidosis. Female beagle stock has been acquired and this model will be brought into the research colony by insemination with frozen semen in the Spring of 2008.

Ophthalmologic Conditions

1. Further characterize and maintain a feline congenital glaucoma model. This model is maintained to characterize this spontaneous and unique model for leading cause of blindness. Work has begun on developing a whole genome scan mapping technique to use in this population.
2. To found and characterize a novel retinal degeneration in the border collie. Frozen semen was used to inseminate on bitch, who failed to conceive. Semen exists for one further attempt, which will be conducted Spring of 2008.

PROJECT 2 INFRASTRUCTURE

Progress Report (300 word maximum):

Infrastructure funds have allowed for the improvement of facilities in the Kildee Hall Animal Facilities to allow expanded housing of canine and feline models. Specifically a biosecurity airlock foyer has been constructed, and unsealed concrete floors in a large animal room and the new foyer have been epoxy sealed and walls repainted. Caging for dog housing in the facility have been installed, and dogs have been on sight in the new facilities since August of 2007. The work came in under estimates, and bids will be sought to utilize further resources to further the infrastructure of the Kildee Hall Animal Facilities.

BATTELLE FUNDING: PROGRESS REPORT

Update Period:	July 01, 2006 – December 31, 2006
Title:	Advanced Food & Feed: Advanced Carbohydrates for Health
Platform:	Advanced Food and Feed
Platform Expenditures:	$ 10,036.82
Platform Co-Chairs:	Ruth MacDonald and Michael Budnick
Platform Funding:	$857,572*
Project Allocated:	$507,572
Project Obligated:	$350,000**
Inf. Allocated:	$ -
Inf. Obligated:	**$ -**

*****In addition to the Battelle funds, $330,000 from ISU's GIVF funding was used to support research projects associated with this platform.

****** This funding is reserved as a start-up package for the Director of the Nutrition & Wellness Research Center (to be hired)

Progress Report:
The Nutrition and Wellness Research Center renovation was completed in April 2007. This was funded by the ISU Central Administration ($700,000). During the renovation and through August 2007, Stephanie Kasper was employed as a Program Assistant who provided support for the NWRC. Stephanie was funded by the College of Human Sciences (CHS). Several human studies have been performed in the NWRC and are ongoing. The completed studies were sponsored by industry partners. During the spring of 2007, a national search for a Director was undertaken, and two excellent candidates were interviewed. Neither of these candidates accepted the position. In September 2007, Dr. Diane Birt was named Interim Director of the NWRC, and in October, Theresa Peterson was hired as an Administrative Specialist for the NWRC with CHS funds. Dr. Birt also serves as Director of the Center for Designing Foods to Improve Nutrition and she is in the process of merging CDFIN into the NWRC. Plans are in place to reopen the search for a Director in the spring of 2008. The funding within this proposal for the startup package for the Director has been retained and will be available for the new hire. Dr. Birt has established the infrastructure of the NWRC. She has put in place a fee structure for clinical research, steering committees for research activities, and financial goals and plans. She is in the process of defining the staffing requirements for the NWRC which will use the salary funds retained in this current project. The CHS has provided financial support to the NWRC in the form of staff and graduate assistantships to encourage research activity. It is expected that a clinical project manager will be hired soon to oversee and manage human subject research projects. The ISU Research Park has been an important partner in this endeavor through the recent recruitment of a marketing staff member. Dr. Birt and Dr. MacDonald have met regularly with the marketing staff to develop recruitment strategies for food companies. In addition, ISU RP has assisted with finding suitable renters for available office space in the building as well as the research laboratories.

BATTELLE FUNDING: PROGRESS REPORT

Update Period:	July 01, 2006 – December 31, 2006
Title:	Thermochemical Technologies for the Bioeconomy
Platform:	BioEconomy
Platform Chair):	Robert Brown
Platform Expenditures:	$ 1,058,662.23
Platform Funding:	$2,164,666
Project Allocated:	$1,054,666
Project Obligated:	**$ -**
Inf. Allocated:	**$**1,008,000
Inf. Obligated:	$ 102,000*

*Allocated to the College of Agriculture, account pending

Publications/presentations based on use of infrastructure:
David C. Chipman, Young S. Do, Dong-Won Choi, Samuel T. Jones, Alan DiSpirito and Robert C. Brown. 2007. Syngas Fermentation Research Facility at Iowa State University. Biobased Industry Outlook Conference. Poster presentation.

Invention disclosures utilizing infrastructure purchases:
IPDR entitled "Ethanol production by combined fermentation and chemical synthesis." was filed with ISURF.

External funding applied for utilizing infrastructure purchases (indicate received/denied/pending):
Funding received: Conoco-Philips. $150,000 (3/07-12/07)

Funding Pending: Conoco-Phillips and ADM $200,000 (1/08-12/08)

Funding received: Annotation of novel enzymatic functions in methanogens : Amount: $1.25M
Funding Agency: DOE-GTL : Dates: October, 2007-October, 2010

Funding pending: CPBR

Funding Received: Department of Energy under award number: DE-FG36-07Go87003.

Funding Received: Project Title: Fast Pyrolysis Process Development Unit for Validating Bench Scale Data
Duration: October 2007- September 30, 2008)
Amount of funds awarded by DOE: $500,000
Cost share from ISU: $125, 132

Funding received: Catalytic Upgrading of Bio-Oil, ConocoPhillips, $162,974 (5/07-12/08)

Funding Received: Condensed Phase Catalysis with Bio-Oil Species, ConocoPhillips, $70,000 (1/08-12/08)

Equipment Donation, Parr Instruments, $29,000

Task 1 Progress Report:
The objective of this task is to produce syngas with properties that maximize growth and production of chemo-autotrophic microorganisms.

Raw syngas from the gasification of biomass feedstocks contains many condensable liquid compounds that may inhibit growth and even kill is cases the Rhodospirillum Rubrum cells being used to convert carbon monoxide to hydrogen. The remove these and other compounds from the raw syngas, a new gas cleanup system has been designed and is being installed. The new gas clean-up system includes a pair of mini-cyclones, a hot gas filter, a tar condenser, an impinger train, a vacuum pump, a pair of toxin filters, and a oxygen filter. This gas clean-up system is capable of providing 10 L/min of cleaned syngas to the bioreactor containing Rhodospirillum Rubrum.

In preparation for evaluating the merits of perspective of feed stock such as: corn stover, switchgrass, corn fiber, and distillers' dried grains work has been completed to upgrade the gasifier. This work includes the addition of a steam generator such that the gasifier may be operated in the following modes: i) air blown, ii) air/steam blown, and iii) oxygen/steam blown. The biomass feeder has also been improved to reduce the difficulty involved with handling ground switch grass and corn stover. The primary cyclone on the gasifier is being replaced with two new high efficiency cyclones that will be designed to remove 99% of the char in the raw syngas. These new cyclones will improve the ability to complete detailed mass balances. The gasifier instrumentation is being replaced and repaired to facilitate detailed mass balances. Some of these repairs include replacing the existing data acquisition software with a new updated version of the software to improve system control and to facilitate improve data collection and a new method to measure the overall volumetric syngas rate out of the gasifier. Finally, the safety equipment in the gasifier laboratory has also been upgraded. These upgrades include replacing the aged carbon monoxide detectors with new industrial grade gas monitoring equipment that will monitor carbon monoxide, hydrogen, and oxygen levels to ensure a safe working environment.

Task 2 Progress Report:
As reported previously, MCM41 functionalized by 5% mole ratio mercaptopropyl groups showed the strongest enhancement of nearly a factor of 2 in the CO-water volumetric mass transfer coefficient (k_La). It was hypothesized that surface hydroxyl groups play an important role in this process. In the past six months, different metal elements such as aluminum, titanium, zirconium and iron were introduced into the framework of MCM41 nanoparticles to adjust the surface hydroxyl group characteristics. However, for these nanoparticles doped with other elements, only slight enhancements of 10~30% were observed at nanoparticle concentrations of 0.2 wt%, which was close to that of the pure MCM41 nanoparticles (25%). Instead, FTIR results suggest the existence of mercaptan groups on the MCM41 nanoparticle can stabilize the CO adsorption on the MCM41 nanoparticle surface in the gas phase, which may result in stronger enhancement when compared to pure nanoparticles.

Considering the coordination interaction between CO and the transition metal ions, different salts, such as ferrous sulfate, nickel sulfate, cobalt sulfate, and nickel nitration were dissolved into water to determine the best metal salts to enhance CO-water mass transfer, and to study the influence of salt concentration on the enhancement. Preliminary results suggest the enhancement by salt addition is affected by the kind of metal ions and anions as well as their solution concentration. For most salts, the enhancement increased with salt concentration. Manganese sulfate ($MnSO_4$) gave the strongest enhancement of all the salts (nearly a factor of 4) when the concentration was 5 wt%.

In the next six months, we will try to immobilize these active transition metal salts on MCM41 nanoparticles and measure the mass transfer enhancement when using these nanoparticles in fermentation media solution.

Task 3 Progress Report:
A continuous syngas fermentation facility for the production of bio-plastic (polyhydroxy alkanoate) and bio-fuel (hydrogen) has been designed and constructed in Black Engineering. The new facility now includes two major components; a fermentation unit and a clean laboratory. A fermentation unit consists of five laboratory-scale (14L) fermenters able to run in parallel or in series depending on needs to optimize syngas utilization. The first fermenter is designed to test biofilteration system to remove potentially toxic compounds from syngas. Syngas filtered through this biofilteration system will be fed into remaining four bioreactors for *Rhodospirillum rubrum* cultivation for the production of bio-plastic and bio-fuel. Gas flow control system installations have been completed which will allow us to monitor gas mass flow and pressure balance between gasifier and bioreactors continuously. A clean laboratory room has been constructed. This particulate-free, temperature-controlled room will provide a proper environment for the wet chemistry required for the chemical and biological analysis of syngas fermentation. Analytical instruments are being installed in this room.

In addition to the construction of a new syngas fermentation facility, this task has continued to focus on developing cost reduction strategies for the bio-plastic and bio-fuel production using syngas. This is still an ongoing project.

Task 3 Infrastructure expenditures

- Plumbing and flow controller system
- Spectrophotometer
- Fermentation system
- Clean room renovation
- Electrical work

Task 4 Progress Report:
The goal of this task is to examine an alternative route to ethanol production that avoids the high energy and water costs of distillation. An important milestone for this work is to genetically engineer *E. coli* to efficiently produce acetaldehyde and hydrogen. In prior work, *Escherichia coli* was successfully engineered to co-produce acetaldehyde and hydrogen from glucose. Work conducted during this update period was aimed at improving acetaldehyde production by identifying and eliminating unwanted by-products. HPLC analysis identified formate, succinate and acetic acid as the major unwanted by-products. In *E. coli* the primary route of acetate formation is via the Pta and AckA enzymes. To eliminate acetate production by this route we deleted the genes encoding these enzymes. Studies are underway to evaluate the effects of these deletions and to construct deletions that eliminate succinate and formate production. A second milestone of this project is to genetically engineer *R. rubrum* for production of acetaldehyde from syngas. The pyruvate decarboxylase (*pdc*) gene *Zymomonas mobilis* was cloned into *R. rubrum* and expression of the PDC enzyme was verified by in vitro assays. Under aerobic growth conditions, PDC expression increased acetaldehyde formation about 2,000%. However, during growth on syngas under anaerobic conditions, no increase in acetaldehyde production was detected. This indicates that *R. rubrum* metabolizes acetaldehyde in the absence of oxygen. Therefore, we have begun work to genetically modify *R. rubrum* to prevent anaerobic acetaldehyde metabolism.

Task 5 Progress Report:
For PHA metabolism, we have identified and are characterizing six *R. rubrum* genes that appear to be involved in PHA production. Since the last report, we have assessed the effect of expressing each of these transgenes on PHA content in *R rubrum*. We have found that these directed genetic manipulations increase the PHA concentrations in *R. rubrum* cultures. These increases range between 120% and 200% of wild-type levels. These manipulations indicate that we may have identified a mechanism by which we can increase the yield of bioplastics from syngas fermentation. We are now expanding these characterizations to further understand the mechanisms by which PHA yields is controlled by these fermentation organisms.

Task 6 Progress Report:
Work on task 6 focuses on generating bio-oil under well characterized operating conditions and characterizing physically and chemically the oil properties that influencing bio-oil stability.

The original goal of building a new pyrolysis unit has been expanded with the recent receipt of $500,000 from the U.S. DOE, which allows us to also purchase new feedstock preparation equipment and design and build more sophisticated bio-oil collection equipment. The reactor is currently being fabricated at the Chemistry Machine Shop on the campus of Iowa State University and should be completed by the beginning of the January 2008. The cyclones are being built by Ames Lab and will be completed early January 2008 as well. A new fractionating condenser system is currently being designed for use with the new reactor.

For the purpose of better characterizing bio-oils, a new laboratory is being set-up. At present, capabilities (i.e. instrumentations and technical personnel) of characterizing biomass, bio-oil and biochars, physically and chemically have been developed. Two recently purchased instruments are a microGC(from Varian) for analyzing synthesis gas and a mercury porosimeter (from Quantachrome) for analyzing the pore size distribution and surface area of bio-chars.

Task 6 Infrastructure expenditures

- 20kg Biomass Dryer/Humidifier
- Mercury porosimeter
- MicroGC
- Hammer Mill Grinder

Task 7 Progress Report:
The goal of our task during the last six months has been focused on producing high-purity oleate esters from high-oleic soybean oil (HOSO). The purity of oleic acid in HOSO has been significantly improved from 83.2% to 92.5% by means of low temperature crystallization. HOSO was esterified with butyl and isopropyl alcohols, respectively, both of which have low melting points. With 50 to 80% acetone by volume, the esters were subjected to a two-step crystallization at temperatures adjusted to their melting points. The solvent and two-step crystallization were employed to improve the efficiency of the fractionation. The fractionation temperatures were -27° C and -37° C for butyl ester and -30° C and -36° C for isopropyl ester, respectively. Stearate crystallized first followed by palmitate. Stearate decreased from 7.3% to trace amount (about 0.3%), but palmitate and oleate formed eutectic mixtures that left about 2% plamitate in filtrate. During these processes, the composition of the polyunsaturated fatty acids, linoleic and linolenic, remained essentially unchanged. After the two-step fractionation, the purity of oleic acid was 92% for the isopropyl ester and 92.5% for the butyl ester. Large crystals were formed by butyl ester, which made filtration easier and made possible the use of less solvent (50%) compared with isopropyl ester (80%). Different methods of filtration were examined to test the feasibility of scale-up. Probably centrifugation at low temperatures with a centrifuge that could periodically dump the precipitate would be more efficient than filtration. Palmitate, the major impurity, could also be removed by a slow distillation. Our collaborators at UNI will evaluate the purified esters as lubricants.

Task 8 Progress Report:
We have ordered a specially-designed high throughput reactor system consisting of 8 reactors that is due for delivery by February, 2008. The Battelle funds were leveraged with $23K from ConocoPhillips and a$29K equipment donation from Parr Instruments in purchasing this reactor system. Two bio-oil upgrading areas have been initiated through funding from ConocoPhillips. The projects are staffed with a post doctoral scholar and a graduate student. We have initiated research on reducing the organic acid content in bio-oil so as to make it more stable and transportable. A second area, which will begin next year, involves the condensed phase conversion of bio-oil molecules to produce molecules that can be more readily used as transportation fuel.

UPDATE: INFRASTRUCTURE FUNDS PROVIDED TO COLLEGES

Dr. Chris Williams has upgraded a servo-pneumatic testing machine for testing materials associated with bio-energy research. Research will be under contract within the next 6-12 months. A substantial amount of exposure is being received by the research team associated with utilizing bio-energy co-products in asphalt materials and this equipment will further expand their research capabilities and thus research exposure.

Dr. Terry Meyer purchased components for building a quadruple pulse laser system that will help develop technologies for alternative fuel processing and utilization.

Dr. Santosh Pandey has purchased a Leica Microscope with High-resolution Digital Camera & Vibration Isolation Table. This equipment will be used for testing characteristics of living cells and microorganisms under various stimuli. The electrically-active bio-nanoelectronic platform combines the versatility of nanoscale circuits with the flexibility of polymeric substrates to study biological processes. Our portable assay would allow label-free detection of a specific biological specimen and nanoscale probing of its characteristics. The electronic detection scheme would provide real-time information over a long time interval, which is not possible with optical or fluorescence-based assays. Combined with high-performance computing features and embedded systems, the microscope system can provide real-time monitoring of biological processes..
He also purchased a two-section glove box from MBraun Inc. for research in organic and bio-electronics of material which are sensitive to air and humidity.

Dr. Jaeyoun Kim purchased an optical table, its support, and a pneumatic controller. The heavy, very flat optical table stabilized by pneumatic floating will serve as the platform in various high-precision optical experiments. He will purchase lasers, optomechanical stages, and detectors. The equipment will be essential for the development of high-performance optical sensing, communication, and computing systems including surface plasmon resonance sensors and nanoscale optical waveguides.

BATTELLE FUNDING: PROGRESS REPORT

Update Period: July 01, 2006 – December 31, 2006
Title:
Platform: BioSecurity
Platform Chair): Manjit Misra
Platform Expenditures: $376,826.29
Platform Funding: $944,200
Project Allocated: $450,000
Project Obligated: $ -
Inf. Allocated: **$** 271,000
Inf. Obligated: $ 223,200*

* The infrastructure obligation if for the BL3 facility currently in the planning stages for the College of Vet Med ($62,000) and for the College of Agriculture ($161,000)

TASK 1 (Natural Antimicrobials) PROJECT FUNDS:

Publications/presentations based on use of infrastructure:
Lantz, A., Brehm-Stecher, B.F., and D.W. Armstrong. Combined Capillary Electrophoresis and DNA-FISH for Rapid Molecular Identification of *Salmonella* Typhimurium in Mixed Culture. Invited manuscript for special issue of Electrophoresis (under review).

B.F. Brehm-Stecher. 2007. "New Technologies for Imaging Individual Microbial Cells". *In* *Imaging Cellular & Molecular Biological Function*, F. Frischknecht and S. Shorte, (eds.) Springer-Verlag, Berlin.

B.F. Brehm-Stecher "Methods for Whole Cell Detection of Microorganisms" *in* *Structure, Interaction and Reactivity at Microbial Surfaces*, T. Camesano and C. Mello (eds.), American Chemical Society, Washington, D.C. (*in press*).

Awards received related to infrastructure purchases:
None

Invention disclosures utilizing infrastructure purchases:
None

External funding applied for utilizing infrastructure purchases (indicate received/denied/pending):

Funded
Ahn, D. U., E. J. Lee, and A. L. Pometto III. 2007-08. Production of Ovotransferrin from Egg White for Antimicrobial Applications. Midwest Poultry Research Program. $44,421

Brehm-Stecher. 2007-2008. Antimicrobial Activities of Essential Oils Part II: Formulation Testing, Blend Optimization, Expanded Pathogen Testing, Activity Enhancement and Alternative Delivery Strategies. Industry/IPRT. $36,893.

Brehm-Stecher. 2007-2008. Testing the Antimicrobial Effects of QSI-Nano Metal Nanoparticles: Basic Research and Applications. Industry. $50,944.

Brehm-Stecher. 2007-2008. Simultaneous Concentration and Visual Identification of *Salmonella* and *Listeria* in Mexican-Style Soft Cheeses. Midwest Dairy Association. $31,068.

Brehm-Stecher. 2007-2008. Rapid Cytometric Detection of *Salmonella*, *Campylobacter*, *Yersinia* and *Listeria monocytogenes* in Pork Products – Assay Refinement, Extension and Technology Transfer. Food Safety Consortium. $17,794.

Brehm-Stecher. 2007-2010. Biomimetic Polymer-Based Antimicrobial Systems: Development and Applications. Industry. $117,300.

Mendonca, A, and A. L. Pometto III. 2007. Antimicrobial Efficacy of a Novel Antimicrobial Skin Cleanser against Foodborne Enteric Pathogens on a Model Skin Surface. IPRT ($12,057) and Northern Filtration Media ($12,065)

Pending

Brehm-Stecher. 2007-2008. Midwest Regional Center of Excellence for Biodefense and Emerging Infectious Diseases Research. Biomimetic Antimicrobial Systems for Biothreat and Emerging Pathogen Mitigation. $97,289.

Brehm-Stecher. 2008-2011. USDA-NRI. Rapid Separation, Concentration & Visual Molecular Identification of Foodborne Pathogens on Fresh Produce. $328,343.

Narasimhan, B., A. L. Pometto III, S. Mallapragada, and M. Misra. 2008-2013. NSF Engineering Research Center for Food Safety and Security. NSF $18.5 Million.

Munkvold, G., A.L. Pometto III, Kim, T., and Shetty, K. 2008-2011. Corn biomass quality for biofuel production; impacts of fungal pathogens and approaches for quality enhancement. Department of Energy. RD-RBP-BIOMASS-2007. $1,101,301.

Progress Report (350 word maximum):

The focus of this research was to expand our knowledge and applications of methanobactin, an ISU discovery, and evaluate the antimicrobials in grape seed extract. Our first 100 L fermentation produced methanobactin at significantly lower concentrations then bench scale (10 L). To increase the residence time for methane for methanobactin production, we need to further modify the 100-L fermentor by employing a down-draft marine agitator blade. For methanobactin recovery we had some start up difficulties with the organic solvent spray drier; we have received some new parts from the manufacturer. Our second pilot scale run will be late January. For the grape seed extract objectives, we decided to produce some Iowa grape extract. Working with the ISU organic grape extension farm in Gilbert, IA and with Dr. Paul Domoto in Horticulture, we now have six different wine varieties and dried pomace (skin and seed). Wine has been racked and shortly the dried grape skins will be separated from the seeds. The antimicrobial properties of grape skin extract will be evaluated on the Bioscreen using five strain cocktails of *Escherichia coli* O157:H7 and *Listeria*. Futhermore, the phenolic profiles and resveratrol concentrations for each skin extract and wine will be determined via the Infrastructure analytical HPLC. We expect to demonstrate superior health benefits and antimicrobial properties for Iowa grapes. Finally, Dr. Kalidas Shetty, Professor at University of Massachusetts, was an IFSS visiting professor this summer. His students worked with Dr. Colonna to evaluate the antimicrobial properties of his enhanced plant extracts using the Bioscreen, and the above food pathogen cocktails.

TASK 1 (Natural Antimicrobials) INFRASTRUCTURE FUNDS

Publications/presentations based on use of infrastructure:
Lantz, A., Brehm-Stecher, B.F., and D.W. Armstrong. Combined Capillary Electrophoresis and DNA-FISH for Rapid Molecular Identification of *Salmonella* Typhimurium in Mixed Culture. Invited manuscript for special issue of Electrophoresis (under review).

B.F. Brehm-Stecher. 2007. "New Technologies for Imaging Individual Microbial Cells". *In* *Imaging Cellular & Molecular Biological Function*, F. Frischknecht and S. Shorte, (eds.) Springer-Verlag, Berlin.

B.F. Brehm-Stecher "Methods for Whole Cell Detection of Microorganisms" *in* *Structure, Interaction and Reactivity at Microbial Surfaces*, T. Camesano and C. Mello (eds.), American Chemical Society, Washington, D.C. (*in press*).

Awards received related to infrastructure purchases:
None to report space is still under renovation

Invention disclosures utilizing infrastructure purchases:
None to report

External funding applied for utilizing infrastructure purchases (indicate received/denied/pending):

Funded
Ahn, D. U., E. J. Lee, and A. L. Pometto III. 2007-08. Production of Ovotransferrin from Egg White for Antimicrobial Applications. Midwest Poultry Research Program. $44,421

Brehm-Stecher. 2007-2008. Antimicrobial Activities of Essential Oils Part II: Formulation Testing, Blend Optimization, Expanded Pathogen Testing, Activity Enhancement and Alternative Delivery Strategies. Industry/IPRT. $36,893.

Brehm-Stecher. 2007-2008. Testing the Antimicrobial Effects of QSI-Nano Metal Nanoparticles: Basic Research and Applications. Industry. $50,944.

Brehm-Stecher. 2007-2008. Simultaneous Concentration and Visual Identification of *Salmonella* and *Listeria* in Mexican-Style Soft Cheeses. Midwest Dairy Association. $31,068.

Brehm-Stecher. 2007-2010. Biomimetic Polymer-Based Antimicrobial Systems: Development and Applications. Industry. $117,300.

Mendonca, A, and A. L. Pometto III. 2007. Antimicrobial Efficacy of a Novel Antimicrobial Skin Cleanser against Foodborne Enteric Pathogens on a Model Skin Surface. IPRT ($12,057) and Northern Filtration Media ($12,065)

Pending
Brehm-Stecher. 2007-2008. Midwest Regional Center of Excellence for Biodefense and Emerging Infectious Diseases Research. Biomimetic Antimicrobial Systems for Biothreat and Emerging Pathogen Mitigation. $97,289.

Brehm-Stecher. 2008-2011. USDA-NRI. Rapid Separation, Concentration & Visual Molecular Identification of Foodborne Pathogens on Fresh Produce. $328,343.

Narasimhan, B., A. L. Pometto III, S. Mallapragada, and M. Misra. 2008-2013. NSF Engineering Research Center for Food Safety and Security. NSF $18.5 Million.

Munkvold, G., A.L. Pometto III, Kim, T., and Shetty, K. 2008-2011. Corn biomass quality for biofuel production; impacts of fungal pathogens and approaches for quality enhancement. Department of Energy. RD-RBP-BIOMASS-2007. $1,101,301.

Equipment Purchased/Rennovations Made:

Progress Report (300 word maximum):
The Biosafety Level II research laboratory construction began September 2007. Most of the electrical and plumbing is close to completion. We reported last time that all the requested equipment has been purchased. The solvent hood and bioguard hoods installations are still in progress. Research lab benches will be fitted with working surfaces. If sufficient funds remain upon completion of the lab renovation, a customized anaerobic hood will be purchased and installed; the wiring and space will be ready for the equipment. IPRT/Industry grants continue to use the discovery initiative equipment scattered throughout the third floor of the Food Sciences Building
(see funded grants).

TASK 2 (Livestock Traceability) PROJECT FUNDS

Progress Report (300 word maximum):
- Began to address key barriers to electronic certification, such as reluctance of some auction markets to learn a new system by developing an off-line software program that is easier for sale barns to use.
- A Team of economists, transportation/logistics experts, and business specialists have begun a SWOT (strengths weakness, opportunities, threats) analysis of the business entities involved in this project to provide input to the business plan.
- Methods to incorporate the ILTP into the Iowa Department of Agriculture and the U.S. National Animal Identification Systems (NAIS) plans are still being discussed with IA Department of Agriculture. Additionally, GVL is working with USDA to develop their system consistent with the national program.
- Online version directed at the veterinary practice to comply with requirements of 'Green' and 'Gold' Preconditioning requirements is in final test and will be moved to production servers by early January 2008.
- Future funding for next phase is open – sources have not been solidified.

BATTELLE FUNDING: PROGRESS REPORT

Update Period: July 01, 2006 – December 31, 2006
Title:
Platform: Information Solutions
Platform Chair): Jim Oliver
Platform Expenditures: $ 663,545.83
Platform Funding: $1,718,000
Project Allocated: $650,000
Project Obligated: $ -
Inf. Allocated: $1,068,800
Inf. Obligated: $ -

PROJECT FUNDS
External funding applied for (indicate received/denied/pending):
"Multi-Touch Technology: Applications to Homeland Security and ISU Research," Grow Iowa Values Fund, $100,000, Jan 1, 2008, December 31, 2008. Partners: Priority5 (Allen Bierbaum), ISU (Stephen Gilbert) awarded

"Center for Information Protection: NSF IU/CRC Industry Memberships," Doug Jacobson, PI, $150,000. awarded

"Bio-inspired Fault-tolerant, Adaptive, Decentralized, and Stable Decision-making and Control for Dynamic and Concurrent Coalitions of Vehicle-Human Teams," James Oliver, PI, with ISU Co-PI's Soon-Jo Chung, Arun Somani, Stephen Gilbert, and MIT Co-PIs Jean-Jacques Slotine and David W. Miller. $6,891,646, Office of Naval Research, pending.

"An Interdisciplinary Methodology to Measure the Social and Emotional Aspects of Communication in Health Care," Debra Satterfield, PI, with Co-PI's Sung Kang and Nora Ladajahasen, $108,498, National Institutes of Health, pending.

"EFRI: Development, Validation, and Use of Sense of "Self" in Robots," Alex Stoytchev, PI, with Co-PI's Nicola Elia, Akhilesh Tyagi, Umesh Vaidya, James Bloedel, and Srikanta Tirthapura, $1,948,294, National Science Foundation, pending.

"A Distributed Peer to Peer Investigation Tool Kit," Doug Jacobson, PI, $558,110, National Institute of Justice, pending.

Progress Report:

On November 1st the CyberInnovation Institute hosted the Iowa Department of Economic Development's Information Technology Council. In addition to normal council business, we were able to brief the Council on CII's progress and Doug Jacobson presented his plan for the "IT Adventures" program to be held spring 2008 in Hilton Coliseum.

On November 13th the CyberInnovation Institute (CII) held its Industrial Advisory Board meeting. This meeting, attended by representatives from Wells Fargo, Deere, Rockwell Collins, Team Technologies, ATG, and Priority5, focused on refining the CII's membership offerings.

INFRASTRUCTURE FUNDS

Publications/presentations based on project:

On August 9th, the The CyberInnovation Institute (CII) hosted a corporate retreat for Wells Fargo Home Mortgage. Attended by more than 50, the morning session was devoted to CII's leadership describing near-future term technology developments that could impact the finance industry. Several promising relationships were developed as a result.

CII Director James Oliver was invited to present informational seminars describing the CII and its benefits to the Departments of Aerospace Engineering, and the Department of Electrical and Computer Engineering at ISU.

Through fall 2007, CII representatives Oliver, Hanovar, Jacobson, and Kothari visited companies including Principal Financial, Wells Fargo, Pella, Deere and Rockwell to describe CII capabilities and benefits of membership.

Progress Report:

Continued infrastructure enhancement of CII space at 2321 North Loop Drive in Ames, including additional (used) furniture, signage, telecommunications, etc.

Secured first startup companies using CII facilities, including Clearsighted, Inc., Visual Medical Solutions, and Concure Ltd. Also presented facilities to EndoMetric and Phasient Technolgies, and hope to secure one of them Q1 2008.

The Information Assurance Center, a founding member of the CII, moved all of its accounts to CII administration encompassing ten ongoing projects totaling $3.5M.

Continued enhancement of CII website.

UPDATE: INFRASTRUCTURE FUNDS PROVIDED TO COLLEGES

College of Liberal Arts and Sciences
Equipment Purchased/Rennoations Made: Twelve Dual Opteron Compute Nodes

Publications:

"Direct Dynamics Trajectory Study of F^- + CH_3OOH Reactive Collisions. An Important Non-IRC Reaction Path", J.G. López, G. Vayner, U. Lourderaj, S.V. Addepalli, S. Kato, W.A. deJong, T.L. Windus, and W.L. Hase, *J. Am. Chem. Soc*, **2007**, 129, 9976 -9985

"Tackling Component Interoperability in Quantum Chemistry Software", F.Peng, M.S. Wu, M. Sosonkina, T.L. Windus, J. Bentz, M.S. Gordon, J. Kenny, C. Janssen, *Proc. of HPC-GECO/CompFrame 2007*, **2007**, 101-110

Presentations:

"Monte Carlo simulation of cluster nucleation using quantum mechanical potentials", L.D. Crosby, S.M. Kathmann, and T.L. Windus, 234th ACS National Meeting, Boston, MA, August 19-23, 2007.

External funding applied for utilizing infrastructure purchases (indicate received/denied/pending):
Received:

- Co-PI on "Simulation of Electronic Non-Adiabatic Dynamics for Reactions with Organic Macromolecules Liquids and Surfaces" funded by NSF-OISE ($110K per year to Windus)
- Co-PI on "Enabling Petascale Applications in the Chemical Sciences" funded by NSF-OCI (approx. $60K per year to Windus)

Pending:

- Co-PI on "Mid-Range Instrumentation: Computer Hardware for Computational Science and Engineering", DOE-BES ($939K)
- Co-PI on "Nanostructured Organic-Inorganic Hybrid Long-Range Charge Separation System for Photocatalysis and Photovoltaic Applications", DOE-BES ($3M)
- Co-PI on "Ames Laboratory Chemical Physics Program", DOE-BES ($3M)

Progress Report (300 word maximum):
During this year, we have had several significant research accomplishments associated with our overall work in combining quantum mechanics with methods traditionally used with classical molecular mechanics. One of these methods is the use of semi-classical trajectories for reactions such as F^- + CH_3OOH collisions. This research, in addition to the chemical insights gained through using quantum mechanics, also represents an example of our collaborative research with leaders in the field. In another major research effort, we have been using dynamic nucleation theory Monte Carlo to examine small water clusters using ab initio methods – their reaction rates, energy distributions and properties. In our quest to reduce the number of quantum mechanical evaluations, we have developed a method to scale configurational probability distributions obtained at high temperatures to lower temperatures without any additional evaluations. These results will be submitted for publication early in the next year.

In addition, we have made significant inroads into the computational science of component development and data definitions. On the component front, we have been tackling the complex issue of developing components for interoperability of integral codes between three computational chemistry codes, NWChem, GAMESS and MPQC. While the final work is still in progress, the interfaces have been defined and a significant portion of the interfaces have been implemented. For data definitions, we have made an extensive description of the Gaussian basis sets and the portal that accesses the basis sets (the Basis Set Exchange).

This is a world-wide resource to the quantum chemistry community that is highly used and the work has already been well cited.

College of Liberal Arts and Sciences
Equipment Purchased/Renovations Made: Photonmax 512B System

Publications/presentations based on use of infrastructure:

"General Fluorescence Resonance Energy Transfer Assay for the Study of Cell Membrane Protein Clustering" University of St. Thomas, St. Paul, MN, November 30, 2007.

"General Fluorescence Resonance Energy Transfer Assay for the Study of Cell Membrane Protein Clustering" Emily A. Smith, Deepak Dibya, Suzanne Sander, Nuha Salem. Midwestern Universities Analytical Chemistry Conference, Urbana, IL, November 1-3, 2007.

"General Fluorescence Resonance Energy Transfer Assay for the Study of Cell Membrane Protein Clustering" 34th Federation of Analytical Chemistry and Spectroscopy Societies, Memphis, TN, October 2007.

Awards received related to infrastructure purchases:
Society of Analytical Chemists of Pittsburgh Starter Award (2007)

Invention disclosures utilizing infrastructure purchases:

External funding applied for utilizing infrastructure purchases (indicate received/denied/pending):

Funded

Plant Sciences Institute Arrays for Measuring Cell 7/1/2007-6/30/09	"High-Throughput Raman Imaging Studies of Plant Tissue Wall Content and Degradation" $60,000 (total direct costs)
Society of Analytical Chemists of Pittsburgh 5/1/07 4/30/08	"Development of Raman and Fluorescence Imaging Methods for the Study of Cellular Processes and Biological Materials in Diverse Applications" "Single-Molecule Immunoassay and DNA $20,000 (total direct costs)
Roy J. Carver Charitable Trust 11/1/2007-10/30/1009	"Novel Fluorescence Resonance Energy Transfer Studies of Cell Membrane Dynamics: Unraveling Integrin Cluster Mediated Signaling Pathways" $239,000 (total direct costs)

Pending

U.S. Department of Energy 2007-2010 (current project)	"Chemical Analysis of Nanodomains" $750,000 (per year) (Co-PIs: V. Lin, J. Petrich, N. Pohl, R. S. Houk, E. S. Yeung, M. Pruski)
Arnold and Mabel Beckman Foundation	"A Novel Method for Studying Cell Membrane 2007-2010 Proteins: Combining Surface Chemistry, Model

	Lipid Bilayers and Raman Microscopy" $300,000 (total direct costs)
Searle Scholars Program	"Elucidating Cell Membrane Protein Dynamics 2008-2011 with Fluorescence and Raman Imaging" $240,000 (total direct costs)
U.S. Department of Agriculture, U.S. Department of Energy (co-PI: Thomas Lubberstedt) 2008-2011	"Diagnostic DNA Markers for High Ethanol and Biomass Yield in Maize and Other Energy Grasses" $250,000 (total direct costs per year)
Camille Dreyfus Teacher Scholar Award 2013	"Development of Raman and Fluorescence Imaging 2008-Methods for the Study of Cellular Processes, Catalysis, and Lignocellulosic Materials" $75,000 (total direct costs)
<u>Denied</u> Petroleum Research Fund Type G Grant	"Raman Spectroscopy Studies of Bifunctionalized Mesoporous Silica Nanosphere Catalytic Systems" $50,000
National Institutes of Health 2007 Director's New Innovator Award Program (DP2)	"Unraveling and Inhibiting Advanced Glycation End Products (AGE) *in vivo*" $1,500,000
Midwest Forensics Resource Center Competitive Research Program	"Raman Imaging for the Detection of Latent Fingerprints on Traditionally Hard to Visualize Surfaces and the Measurement of Endogenous Compounds in Fingerprint Residue" $57,106

Progress Report (300 word maximum):

We are developing imaging instrumentation and methods, and subsequently applying these techniques in a diverse set of applications, including the study of cellular processes that are initiated at the cell membrane, lignocellulosic biomass, and catalytic systems. Two goals of this work are elucidating how properties of the cell membrane influence cell signaling events across the membrane, and developing methods to study reactions utilizing chemical and biological catalysts. The analysis techniques that we use include fluorescence and Raman scattering. Raman imaging is a particularly attractive imaging mode since it provides spatially-correlated chemical content data without the need to destroy or modify the sample under study. Fluorescence imaging can provide kinetic and thermodynamic information concerning biological interactions, and can also provide spatial data below the diffraction limit.

The lab has built two imaging instruments, one capable of Raman microspectroscopy and Raman imaging measurements and one suitable for several fluorescence techniques. The Raman instrument uses fiber bundle image compression to obtain complete spectra from several areas of the sample surface simultaneously. The second instrument is a fluorescence microscope that is set-up for fluorescence resonance energy transfer, single molecule fluorescence, and fluorescence immunohistochemistry measurements, and is used with either total internal reflection or wide-field excitation. The Photonmax 512B can be used in either instrument set-up. These instruments are used in several diverse projects that have been initiated in the

laboratory, including the study of: cell membrane receptor signaling events, receptor clustering, receptor conformational changes, and chemical transformations catalyzed by enzymes.

College of Engineering:

Andrew Hillier. $120,000 is currently encumbered on this fund. It is match support for the Keck Grant. Dr. Andy Hillier has placed a purchase order to AJA International, Inc. for an ATC Series Combinatorial/Conventional Sputtering System. The W. M. Keck Foundation established the W. M. Keck Laboratory for High Throughput Atom-Scale Analysis to drive the frontiers of combinatorial science and atom-scale materials research. This lab provides sample preparation and characterization facilities in support of the research activities performed by members of the Institute for Combinatorial Discovery as well as researchers throughout Iowa State University and the public. The laboratory provides unique materials preparation and characterization facilities that support a range of research and educational projects.

Dr. James Alleman purchased a Dual Core Intel Xeon 5050 Server for the Civil Construction and Environmental Engineering Department. The new server provides the capability of larger memory storage and real-time computer access for the entire research group.

Dr. Song-Charng Kong purchased time on the Lighting Cluster (high performance computing). This computer time will allow him to perform combustion process modeling which is vital to his effort to find better ways to burn bio-renewable fuels in engines cleanly, efficiently and effectively. If we want to increase use of bio-renewable fuels to lessen our dependence on petroleum based engine fuels, this kind of research must occur.

Dr. Krishna Rajan spent $81,000 of the Battelle funds to purchase a Nano Test Platform and NTX Controller with High Temperature option and High temperature extension. The equipment was purchased from Micro Materials Limited. The total cost of the equipment was $188,905. The benefits of the equipment are various including the ability to collaborate with several other faculty members at ISU and support industrial sponsored projects in the areas of mechanics of materials and high temperature behavior of materials.

Dr. Richard LeSar spent $80,000 of the Battelle funds to purchase a portion of the large computer system. This equipment is essential for Dr. LeSar's work on computational materials science, providing the ability to model a wide range of materials behavior. Results of this work enable the ability to collaborate with other ISU researchers and to develop strong and active ties with industry and governmental research efforts.

BATTELLE FUNDING: PROGRESS REPORT

Update Period: July 01, 2006 – December 31, 2006
Title:
Platform: Advanced Manufacturing
Platform Chair): Ron Cox
Platform Expenditures: $ -
Platform Funding: $100,000
Project Allocated: $100,000
Project Obligated: $ -
Inf. Allocated: **$** -
Inf. Obligated: $ -

Progress Report:
We continue to partner with John Deere to provide lean training to some of their suppliers. This is funded by Deere and CIRAS as part of our NIST/MEP grant. We have been funded by EDA to investigate biobased product supply chains. This work will begin this summer. We are working with the Economics Department at ISU to review the Battelle report and the Monitor report. We are looking at a simplified approach to analyzing clusters/supply chains to rank Iowa clusters and to determine what are the top 2 or 3 we should be focusing on. We are ranking these based on recent growth rate, importance to the Iowa economy, wages, and the extent of the supply chain. We hope to have this completed by the 10th or 11th. (We anticipate that ag equipment will end up in this short list.). We are nearing completion of the ag equipment supply chain proposal and plan to proceed with this effort, unless the analysis (item 3) steers us somewhere else. I will add some verbiage on the lean institute. I do not want to complete a detailed analysis of an institute. I would rather spend funds to implement lean/six sigma/TOC projects with suppliers and then survey OEMs and suppliers on what works and does not with the approach. Based on what we learn, we will offer our opinion on how this might be structured. Does that work? We have created a Supply Chain Advisory Committee from members of the CIRAS Advisory Council to provide advice to us as we proceed. We still have almost all of the funds available from central ISU for the supply chain work that was awarded a year or two ago; We have not spent this yet because I want to make certain we are all on the same page with the IDED Advanced Manufacturing Group

BATTELLE FUNDING: PROGRESS REPORT

Update Period: July 01, 2006 – December 31, 2006
Purpose: Endowed Chairs
Purpose Funding: $2,000,000
Purpose Expenditures: $ -
Purpose Obligations: **$** 500,000

Progress Report:
Iowa State University received $2 million in funding to be used for matching dollars for endowed chairs. ISU determined that these dollars would be used to leverage private gifts with a $2 private to $1 public match to create a total of $6 million for endowed faculty positions. One million was allocated to the general university and the remainder was allocated to the Bioeconomy Initiative. Deans and others submit their proposals for consideration to the Provost and President for approval before presenting to donors. The ISU Foundation has offered this incentive to donors on a basis that the first to commit will receive the matching dollars.

April 2007, the ISU Foundation received $1M in private funds from Dr. Eugene and Linda Lloyd to create the W. Eugene Lloyd Chair in Toxicology in the College of Veterinary Medicine. This endowment was matched with $500,000 from Battelle funds. A national search was done for this position and an offer is pending, thus no expenditures have been made from this endowment.

New proposals are pending for the remaining $1.5 million in matching funds for endowed faculty chairs but no commitments have been secured that meet the strict criteria for these funds.

IOWA STATE UNIVERSITY
OF SCIENCE & TECHNOLOGY

FY2007 Board of Regents Annual Economic Development and Technology Transfer Report

PRESENTED BY JOHN BRIGHTON, VICE PRESIDENT FOR RESEARCH & ECONOMIC DEVELOPMENT

October 4, 2007

FY 2007 Board of Regents Annual Economic Development and Technology Transfer Report

1. Please briefly describe the relationship of your institution's economic development activities to the enhancement of economic growth in the state. The description should cover, but not necessarily be limited to the following:
    a. The relationship between institutional activities and creation of jobs and wealth in Iowa
    b. Institutional activities and services which indirectly promote economic development, such as training provided to staff of local economic development agencies

1.A Enhancement of Economic Growth through Job Creation and Retention, Investments, Sales, and Cost Savings

Iowa State University engages in several activities that have direct impact on both the creation as well as the retention of jobs in Iowa. The ISU Research Park is a technology community that encourages commercialization of university research. Likewise, the Innovations Development Facility, part of the Plant Sciences Institute, incubates new companies. In addition, the IPRT (Institute for Physical Research and Technology) Company Assistance Program, ISU Extension's Center for Industrial Research and Service (CIRAS), the Small Business Development Center (SBDC) and the ISU Pappajohn Center for Entrepreneurship interact with companies across Iowa to solve production and management problems. These interactions lead to the resolution of problems related to product development and business management. As a consequence of the improved production resulting from these interactions, businesses have been able to retain and often expand their work force rather than lay off workers due to the expected down turn in business if no solution to the problems had been found. Some examples of the impact that ISU units have had this past year are as follows:

- The ISU Research Park has been very successful in initiating as well as nurturing numerous new businesses. Sixteen new companies and affiliates have joined the Park in FY07, bringing the historical total to 167 companies. Currently, there are 52 companies located in the park, employing over 635 people.

  A study by an ISU economist for the ISU Research Park suggests there is a substantial and diverse set of economic activity located at the ISU Research Park whose effects link strongly with the Iowa economy. The study, conducted in 2002/2003 which focused on current tenants at the Park, indicated that tenants contributed both directly and indirectly to $134.2 million in total industrial output of firms in the state. Wages paid by Research Park companies exceeded $36.7 million annually, with an additional $16.9 million in wages generated by businesses providing goods and services to Research Park companies and its employees. At the time of the study, the Research Park tenant companies employed over 900 people. Another 639 jobs were generated by businesses providing goods and services to the companies and its employees. The average wage per worker at the Research Park, including students, exceeded $40,000. The economic activity generated by Research Park tenants generated an estimated $3.7 million in state tax income and another $1.4 million in state charges and miscellaneous revenues annually.

- Two new faculty start-up companies have located in the Innovations Development Facility, which is a recently established on-campus business incubator in the Roy J. Carver Co-Laboratory, under direction of the Plant Sciences Institute. A total of eleven companies have signed lease agreements for business incubator space since the facility opened in September 2003.

- A five-year summary of project evaluation data was analyzed in April 2007 and clearly shows that Iowa companies with technical problems and research and development needs continue to find important technical help through the services of IPRT Company Assistance. Companies report positive impacts affecting their companies' sales, investments, and operating costs. The estimated annual average impact over the period is $17.3M per year, and it is estimated that 34 jobs on average are created or retained each year. The average satisfaction rating given by clients during this four year period is 4.4 (1-5 scale), and the average survey return rate is 55%.

- Extension's CIRAS (Center for Industrial Research and Service) staff provided educational information to 11,000 individuals in FY07. In-depth assistance was provided to 577 distinct Iowa companies by CIRAS and CIRAS partners. These companies reported $122 million in new investments, $7 million in costs saved or avoided, and $62 million in sales gained or retained. Company executives stated that 1,658 jobs were added or retained as a result of the technical assistance and education they received.

- Extension's CIRAS is partnering with the USDA Office of Energy Policy and New Uses to stimulate economic growth in the biobased products industry. Staff work with manufacturers, industry associations and federal agencies to identify, designate and promote biobased product categories that will be afforded "preferred procurement" status within federal purchasing sectors. Nearly 1,900 U.S. manufacturers have been identified that produce over 10,000 biobased products. Iowa has over 100 companies that produce over 300 different biobased products.

- In a report published by James J. Chrisman, Ph.D. in Management and Information Systems at Mississippi State University, data was collected from survey respondents for *Economic Impact of Small Business Development Centers (SBDC's)*. In that report, based on several years of data, it was shown that for every $1.00 in SBDC funding in FY04, the amount of tax dollars returned to the State of Iowa and the federal government by SBDC clients was $4.41. There were also 351 jobs retained, 1,001 jobs created, $6.4 million in sales retained and $125.3 million in sales increased.

- New technologies originating at ISU and licensed to Iowa companies have resulted in $83 million in sales by those companies in calendar year 2006. Total sales of ISURF-licensed technologies were $471 million, not including germplasm.

- The Office of Intellectual Property and Technology Transfer began supporting SBIR (Small Business Innovation Research) and STTR (Small Business Technology Transfer) outreach efforts in FY06. Since then, SBIR and STTR

funding in Iowa has rebounded following a decrease in FY05 after federal support for an earlier assistance program at ISU ended. An emphasis placed on outreach and training activities, including a monthly newsletter, proposal writing workshops and providing proposal preparation support has led to an increasing number of companies receiving funding. Nineteen Iowa companies were assisted in the preparation of 23 SBIR or STTR proposals during FY07 including eight Iowa State faculty or staff related start-up companies. In FY07 fifteen Iowa companies won 21 new SBIR and STTR awards worth nearly $4.8 million. The Departments of Agriculture and Defense, as well as the National Institutes of Health and the National Science Foundation, are funding this year's Iowa SBIR/STTR award winners. The funded projects reflect Iowa's strengths in biotechnology, information systems, materials development and agriculture. Over $3 million in support was awarded from NIH for diverse projects that range from the development of an advanced medication dispenser to software to facilitate genomic analyses to creation of novel nanotechnology tools for life science research.

- Over 650 public works professionals attended Engineering Continuing Education events in FY07. Geotechnical engineers, geologists, safety personnel, maintenance managers, plant engineers, utilities supervisors, urban planners, and storm-water managers attended conferences and meetings across Iowa. The conferences provided CEUs from Iowa State University on critical infrastructure topics including Electric Utility Operation and Management, Transportation Planning, and Environmental & Water Resources. Attendees were also able to obtain professional development hours toward retention of their Iowa Engineering Licenses.

1.B Training Opportunities for Staff of Local Economic Development Agencies

- Many units on campus provide training opportunities for staff of economic development groups across the State. Some of these are done through visits to campus and some are done by ISU units going out to the agency or respective community. For example, the Office of the Vice President for Research and Economic Development has sponsored an Economic Development Open House for the past five years, in which many economic development groups across the State have participated in a conference, including tours of campus facilities.

- Extension's CIRAS and the Department of Economics at Iowa State combined resources with the Economic Development Administration to conduct regional studies of economically distressed regions in Iowa. Economic developers from Adams, Cass, Fremont, Harrison, Mills, Montgomery, Page, Pottawattamie, Shelby, and Taylor counties participated in the most recent research. The study identified challenges for the region, such as out-migration and an older, less-educated workforce, as well as specialization in numerous areas, including agricultural production, construction, and transportation.

2. Please provide the following information for FY 2007: (If your institution utilizes additional metrics specific to your institution's specialized areas of research or service, please include them here)

Note: Unless noted, the data provided below is FY07 data. In some categories, the AUTM (Association of University Technology Managers) ranking is shown. AUTM is a national association that conducts annual surveys. Their most recent data published was based on FY05 numbers and included 158 U.S. university participants. See Attachment A for three years of data.

a. Number of disclosures of intellectual property 114 (AUTM Ranking—tied at 21st
b. Number of patent applications filed 41 (AUTM Ranking—47th)
c. Number of patents awarded 26 (AUTM Ranking—53rd)
d. Number of license and option agreements executed on institutional intellectual property, in total and in Iowa 113 total, 62 in Iowa (AUTM Ranking, in total—2nd)
e. Number of license and option agreements yielding income 268
f. Revenue to Iowa companies as a result of licensed technology $83 million
g. Number of startup companies formed, in total and in Iowa (through licensing activities) 2 total, 2 in Iowa (AUTM Ranking—tied at 22nd)
h. Number of companies in research parks and incubators 47 private and 14 university-related
i. Number of new companies in research parks and incubators 10 private and 6 university-related
j. Number of employees in companies in research parks and incubators 390 private and 246 university-related
k. Royalties and license fee income $8.1 million (AUTM Ranking—46th)
l. Total sponsored funding $272 million of which $167 million is for research
m. Corporate sponsored funding for research and economic development, in total and in Iowa $14.2 million total, $8.1 million in Iowa
n. Iowa special appropriations for economic development in the following categories:
    i. Annual state appropriations for ongoing programs (such as research parks, SBDC, IPRT, IDM, Metal Casting Center) $2.5 million—includes $650,000 SBDC, $148,000 ISU Research Park & $1.7 million IPRT
    ii. Grow Iowa Values Fund appropriations $1.925 million
    iii. Battelle appropriations No new funding in FY07
o. Research expenditures (including state appropriations and external funding) $222 million—Note that this is a FY06 number, most recent number available
p. Licenses and options executed per $10 million research expenditures 9 (AUTM Ranking—1st)—Note that this is a FY05 figure, most recent number available
q. Sales of licensed products by Iowa-based companies $82.7 million--Note that this is a FY06 figure, most recent number available.
r. Number of employees for current Research Park tenants and incubator, as well as former tenants that are still in existence in basic form world-wide 2,266
s. Number of interactions ISU had in FY07 with communities and businesses across the State of Iowa (not including interactions with the Small Business Development Center) 4,484 (see last two paragraphs in section 3.C for more detail)—the number the previous year was about 3,200

3. Please describe the ways in which your institution is engaged in the following activities (For example, what is the nature of the outreach and service activities? Which units provide it? What kinds of people and organizations benefit?)

a. Direct and hands-on technical assistance to businesses and entrepreneurs
b. Direct economic development assistance to Iowa communities
c. Economic development services provided by research parks, incubators or similar service units

3.A&B ISU System for Innovation

Iowa State University is charged with advancing economic development and technology transfer activities that promote growth and benefit all citizens. While creation of knowledge remains the basic responsibility of a research university, the way we share knowledge determines our success. ISU shares knowledge and expertise with students (learning and teaching), communities (engagement), and business and industry (technology transfer and economic development). ISU ranks as one of the most successful universities nationwide in several categories of technology transfer and economic development. The activities of the colleges, institutes and centers are coordinated through the Economic Development Council that advises the Vice President for Research and Economic Development. The Vice President and this Council continuously communicate with economic development entities within the State such as the Iowa Department of Economic Development, the Iowa Business Council, the Greater Des Moines Partnership and other local and regional agencies.

The Iowa State University "System for Innovation" was developed to focus on the transfer of university technologies into commercial applications in start-up or existing companies. Functions of the ISU System for Innovation include:

- **Business Development & Assistance and Entrepreneurial Activities**: Efforts related to start-up companies, including business assistance services & SBIR/STTR applications.
- **Technical Assistance & Technology Development**: Solving technical problems, assisting in product development and process improvement projects for existing businesses. This includes the current efforts of no-cost technical assistance and cost-sharing projects.
- **Industry Relations**: Facilitation of a multitude of interactions between ISU and its industry partners, including the management of research relationships and interactions with economic development groups, legislative groups, and other third parties.
- **Community Development**: To disseminate and develop programming, facilitating community organizations, fostering community planning, and coordinating with community and regional economic development networks and organizations.
- **Technology Transfer and Licensing:** The transfer of patented intellectual property to business and industry through license agreements.
- **Physical Space:** Physical space for business incubation is available in the ISU Research Park, Plant Sciences Institute, and Center for Crops Utilization Research.

- **Research and Instrumentation Facilities:** Iowa State University maintains more than 20 central research facilities that also serve communities and businesses on a fee-for-service basis.

3.C ISU's Key Units engaged in Economic Development

Iowa State University, as part of the higher education system in the State, is charged with advancing technology transfer and economic development activities that promote growth and benefit all citizens. The University evolves these goals by contributing to workforce development, creating intellectual property, advancing ideas to the stage of market readiness, supporting creation of new companies, offering assistance to existing companies, and attracting new companies to the State. The University's economic development/technology transfer support system includes the following units that are coordinated through the Economic Development Council:

- Institute for Physical Research and Technology (IPRT): Through IPRT's Company Assistance Program, Iowa companies can leverage the expertise of the IPRT research centers and other ISU capabilities in order to solve technical problems, create new products and processes, and increase productivity and quality. IPRT Company Assistance provides help through both short-term, no-cost technical assistance, and its R&D cost-sharing program. IPRT assists early-stage technology commercialization and actively collaborates with Iowa companies on technology transfer projects. Materials and process problems can be addressed, and IPRT experts can also assist Iowa companies with inspection and measurement challenges. IPRT plays an integral role in the process of technology transfer targeted at new business creation.

- Pappajohn Center for Entrepreneurship and the Small Business Development Center (SBDC): These units work with researchers to define the technologists' role in the company, evaluate markets, assist in the creation of a business plan and help the company develop connections with a network of business resources including consultants, accountants, attorneys, prospective employees and investors. In a typical year, the Pappajohn Center, working with IPRT, the Plant Sciences Institute, ISURF/OIPTT and other research centers, identifies approximately 25 prospective new technologies. These technologies can take six to 26 months to develop sufficiently to justify the formation of businesses. During this time the researcher receives assistance in moving the technology from the researcher's bench to the marketplace. The Pappajohn Center helps the researcher develop the model for the business and establish the network of resources necessary to implement the plan. These resources can include business assistance, students or capital. The Pappajohn Center/SBDC also continues to provide a referral network and facilitates the recruitment of students including access to internships.

- Iowa State Innovation System (ISIS): Near the time a venture is launched, facilities become an issue. ISIS, ISU's technology incubator, provides an ideal first home for companies. ISIS offers connections to the University, affordable space with reception services, office equipment (copiers, fax machines, and computers), conference rooms, and other amenities at a very reasonable rate. The Pappajohn Center, described above, provides mentoring to the companies

as well as the opportunity for companies to utilize students as interns and researchers. ISIS will generally attract five new companies each year. Companies typically spend one to three years in the Incubator moving from product development to product sales. Once sales are established, companies grow out of the Incubator. Some companies remain within the Research Park and continue to receive development assistance, while others move on to commercial space elsewhere but can still receive business development services from the ISU Pappajohn Center and ISU SBDC. As companies mature, the University provides opportunities for collaboration between researchers at the University and in the companies. Students provide cost-effective labor and are potential employees. The Research Park provides expansion space, often financing the space and improvements.

- Iowa State University Research Park: The Iowa State University Research Park is a 230-acre development with nearly 325,000 square feet of building space and is located south of the Iowa State University campus. The ISU Research Park is more than just land and buildings; it is a technology community that encourages commercialization of University research.

- Extension's Center for Industrial Research and Service (CIRAS): CIRAS provides education, research, and technical assistance to Iowa industry through partnerships with Iowa's universities and community colleges, government agencies, and professional associations. Account managers throughout the state meet with clients to assess needs and provide links to resources that companies can use to increase their competitiveness. Solutions are offered through a combination of direct assistance from center staff, university faculty, partner organizations, and outside consultants. CIRAS staff have expertise in biorenewables, engineering, management practices, government procurement, productivity, and quality systems. The center is supported in part by the NIST/DoC Manufacturing Extension Partnership, the DoD Procurement Technical Assistance Program, the EDA University Center Program, and USDA BioPreferred.

- ISU Research Foundation (ISURF) and the Office of Intellectual Property and Technology Transfer (OIPTT): ISURF owns and ISURF and OIPTT jointly manage, market and license the intellectual property for Iowa State University. ISURF/OIPTT works with faculty members in regard to the reporting and protection of innovations, including patenting inventions. It markets the innovations to find commercial partners interested in licensing. It also funds projects within the University that have potential for broadening the intellectual property protection or providing value for its commercial potential. ISURF also provides assistance to Iowa companies, including ISU faculty start-ups with SBIR and STTR applications.

- Innovations Development Facility (IDF): This is a business incubator operated by the Plant Sciences Institute to promote the commercialization of plant biotechnology. IDF encourages ISU faculty, staff, and students to commercialize their research in the plant sciences and promotes the development of start-up companies among aspiring entrepreneurs. IDF is housed in the Roy J. Carver Co-Laboratory and consists of six well-equipped laboratory modules. The facility offers an environment to transition research from a university to a business

setting. The IDF facility is a productive research location where scientists from academe and industry can work together to advance the mission of the Plant Sciences Institute and to promote economic development in Iowa.

- Extension's Community and Economic Development Program: They provide assistance in land use and community planning, community economic analysis, nonprofit management, community design, local government management and leadership development. Major partners in the provision of these services and educational programs have included the Iowa Department of Economic Development, the University of Iowa Nonprofit Resource Center, the Iowa Department of Transportation, the U.S. Department of Housing and Urban Development, the Office of the Iowa Secretary of State, Hometown Perry, Iowa, and the U. S. Department of Agriculture.

- ISU Extension to Families: They provide leadership for Iowa families and communities in meeting workforce development needs associated with dependent adult and child care, food safety, financial management, nutrition and health issues. They also serve as the lead delivery unit within Extension for the Horizons project in Iowa, working in 20 rural Iowa communities to help communities take charge and build stronger leaders to address poverty, economic decline and the exodus of young adults. This program is funded by the Northwest Area Foundation.

- ISU Extension to Agriculture and Natural Resources (ANR): They provide educational leadership to integrate Iowa's rich natural resources, productive people, and viable communities with its strong agricultural industry to grow the economic base of Iowa agriculture. ANR Extension plans and delivers extension education activities through seven teams of faculty, field specialists and staff with expertise in crop production and protection, farm business management, horticulture, beef production management, pork production management, dairy production management and natural resources and stewardship. For example, the Dairy Production Management Team has partnered with external groups to establish the Iowa Dairy Coalition. During the past three years, through the leadership of the Coalition and Extension, Iowa dairies have increased their contribution to the Iowa economy by more than $180 million.

- The Office of the Vice President for Research and Economic Development (OVPR/ED) works closely with all of the above units, including the Office of the Vice President for Extension and Outreach, in promoting the University's mission related to technology transfer and economic development.

    - The Economic Development Council (chaired by the VPR/ED) coordinates ISU technology transfer and economic development activities. Members meet monthly to discuss problems, update each other on activities, assess the state and national environment for technology transfer, and propose policy and procedures to encourage technology transfer and economic development activities at ISU. This council, formed in 1993, is comprised of representatives from all units on campus that have a primary role in economic development and technology transfer as well as representatives from each of the seven colleges.

- An Economic Development Team within the OVPR/ED meets regularly to coordinate activities in this area. Members of this team include the VPR/ED, the Director of Industry and Government Relations, the Director of Industry Initiatives, the Director of the Office of Sponsored Programs Administration, the Executive Director and Associate Director of the ISU Research Foundation/Office of Intellectual Property and Technology Transfer, the Director of the ISU Research Park and Pappajohn Center for Entrepreneurship, and the Special Advisor to the VPR/ED.

- An opportunity response team (ORT) was formed to focus on the bioeconomy initiative and fostering relationships with industry in this area. Members include the Director of the Office of Biorenewables Programs; the Assistant Director of the Office of Biorenewables Programs; the Director of Industry and Government Relations; and the Director of Development, ISU Foundation. In FY07, this team helped secure an eight-year $22.5 million research award from ConocoPhillips. This award will support ISU scientists and engineers as they research and develop a biofuel-production technology. It will also support research of the plant sciences and crop production, the harvesting and transportation of biomass and the impacts of biofuels on economic policy and rural sociology.

The above units are the key units that focus attention on economic development and technology transfer at ISU; however, significant additional related activity also occurs across campus in individual academic departments, centers and institutes, and colleges.

A recent survey of all ISU units was conducted to capture an estimate of the number of interactions ISU has had with communities and businesses across the State of Iowa. In FY07, the number of interactions reported was 4,484. This activity occurred in all 99 counties. (See Attachment B for details of these interactions, Attachment C for information on the coding used in Attachment B, and Attachment D for a map that shows distribution by county.)

In addition, the Small Business Development Center (SBDC) provided business assistance to companies, involving 2,168 clients and 15,598 counseling hours in 99 counties. They also conducted 387 training workshops in which 5,094 individuals participated. Information on SBDC is not included in the Excel sheet or map due to confidentiality reasons.

4. Please briefly describe two or three examples of major economic development collaborative projects with such other entities as Regent universities, Iowa community colleges, the Iowa Department of Economic Development, Iowa Workforce Development, or other state agencies.

Major Economic Development Collaborative Projects

Grow Iowa Values Fund -- This legislation is providing the universities and private colleges financial resources to expand technology transfer and commercialization efforts. We are in the third year of GIVF funding, in addition to providing core support for

infrastructure in the Research Park, Pappajohn Center, IPRT Company Assistance, and the VPR/ED office. Each year projects are funded that pair ISU researchers and Iowa companies. A longer summary appears below.

Battelle Initiative – ISU, the University of Iowa and the University of Northern Iowa have worked closely with the Iowa Department of Economic Development, the Board of Regents, State of Iowa; legislators and business leaders through the Biosciences Alliance of Iowa organization to implement the Battelle initiative. Proposed projects that focus on the biosciences, information technology and advanced manufacturing have been funded. A longer summary appears below.

Company Visits – Each year IDED brings companies to visit ISU as part of their normal recruiting efforts. Two of the companies that IDED introduced to ISU in the past year are in the process of establishing research relationships with Iowa State. In addition, one company that was a joint effort between IDED and ISU has decided to locate in the ISU Research Park.

5. Please provide the following information about Grow Iowa Values Fund projects for FY 2007:
   a. Identify and briefly describe each project or initiative which received GIVF funding in FY 2007 including information on outcomes or progress made
   b. Identify metrics which were used to measure outcomes for each project and report progress on each metric for FY 2007
   c. Provide a description of the sources of the matching institutional dollars for each GIVF-funded project

Projects funded in FY07 will conclude May 31, 2009. All projects are in-progress and reports are interim. A copy of the full report submitted to the Board of Regents in August is attached to this report (see Attachment E).

Principal Investigator	Project Title	Award Amount
Mary Holz-Claus	Corn-Biomass Composite Fuel Pellets: An Industry-University Partnership	$49,380
Samir Khanal	Ultrasonication in Soy Processing for Enhanced Protein and Sugar Yields and Subsequent Nisin Production	$81,977
Vikram Dalal	Collaborative Research on High Performance Stable Amorphous Silicon-Germanium Solar Cells	$63,406
Manjit Misra	Commercialization of a Continuous In-Line Flow Meter	$74,480
Larry Johnson	Commercializing New Fractionated Soy Proteins to Improve Human Health and Food Quality	$167,717

Jay-Lin Jane	Development of Resistance and Low-Caloric Maltodextrins from Cornstarch	$96,273
David Grewell	Ultrasonic Assisted Exfoliation of Bio-Renewable Polymer Nanocomposites with Micro-Cellular Structures	$72,681
Richard Larock	Commercialization of a Corn/Soy Oil-Based Composite Hog Feeder	$96,000
Robert Brown	Gasification Technologies in Support of Biorefineries	$132,247
Jacek Koziel	Purification & Quality Enhancement of Fuel Ethanol to Produce Alcoholic Beverages with Ozonation & Activated Carbon	$81,848
Hans van Leeuwen	Converting Low Value Thin Stillage from Dry Milling Ethanol Plans into High Value Fungal Biomass	$82,070
Pamela White	Designing Corn Lines with Dietary Fiber to Produce Ethnic Foods with Enhanced Health Benefits	$67,960
Suzanne Hendrich	Flaxseed Lignans for Health	$66,960
Ruth MacDonald	Role of complex carbohydrates from soybeans in inflammatory bowel disease	$65,000
Anumantha Kanthasamy	Development of Novel Gene Therapy Approach for Parkinson's disease by Targeting a Cleavage Site of a Proapoptotic Kinase	$50,000
Don Reynolds	Concept Paper for Biosafety Level 3 (BSL3) Facilities at Vet Med	$38,000

High Performance Solar Cells

PI: Vikram L. Dalal

Metrics:
Publications/presentations based on project:
At ICANS in August 2007

Awards received: Iowa Energy Center

External funding applied for (indicate received/denied/pending):
DOE-BES: Pending; NSF-will be sent in the September and October round; PRF-will be sent in September round; NSF-MRSEC-Preproposal sent to VP Research

---

Progress Report: The project is on target for developing higher performance solar cells that Powerfilm can implement in production a few years down the line. Powerfilm has already implemented one of our improvements from the GIVF project.

Matching Funds:

- Powerfilm - $20K in-kind
- ISU - $48,000
    - Whitney Chair Professorship
    - Micron faculty fellowships for Excellence
    - NSF Grant ECS-0501251

Corn-biomass Composite Fuel Pellets: An Industry-University Partnership

PI: Mary Holz-Clause
CoPI(s) Douglas Stokke, Daniel Burden

Metrics:
External funding applied for (indicate received/denied/pending): A USDA Rural Development Pass-Through-Loan-Guarantee application to assist the ongoing expansion of the fuel-stove production facility in Pella, IA, has been submitted by the Iowa Area Development Group.

Progress report:
A patent application regarding the architecture of the extrusion die has been applied for by LDJ, Landers Machine, and Gary Wobler under the name of Ag Pellet Energy. Additionally, a filing for patent-protection currently is underway on a 100 percent pellet processing system for both fuel and feed applications. Ag Pellet Energy and Landers Machine have introduced this concept to the ethanol industry and are forming a new company, Ag Fuel & Feed, which will be based in Iowa. The "100 percent DDG Pellet and Processing System" is designed to be located at or near ethanol plants. Marketing the technology as a system for sale to ethanol plants was initially proposed by the ISU Extension Value-added Agriculture Project.

Matching Funds:

- LDJ Manufacturing - $35,600 (in-kind)
- Wobler, Gary - $7,680 (in-kind)
- Iowa Area Development Group - $6,100 (in-kind)

Commercializing New Fractionated Soy Proteins to Improve Human Health and Food Quality

PI: Lawrence A. Johnson

Metrics:
Publications/presentations based on project:
American Oil Chemists Society annual meeting (Quebec City, Canada):

- Soy Protein Fractionation Using Gas-Supported Screw-Pressed Soybean Meal. (N. Deak and L. Johnson)

- Compositions and Properties of Gas-Supported Screw-Pressed Soybean Meal. (N. Deak, Z. Nazareth, and L. Johnson)
- Effects of Hydrogen Peroxide on Microbial Safety and Functionality of Soy Protein Isolates (N. Deak, N. Winsetel, and L. Johnson)
- Functional Properties of Soy Protein Isolates Made from Gas-Supported Screw-Pressed Soybean Meal. (Z. Nazareth, N. Deak, and L. Johnson)

Invention disclosures:

ISURF filed for US patent on April 13, 2007.

Progress report:

We previously completed the first two of five objectives of the grant (proof-of-concept and scale-up, and process cost estimation). In the present reporting period, we focused on the third objective, to prepare a catalog of properties for our protein fractions and to compare those properties with those of existing protein products in the marketplace, which will be our competition. We have completed all of the compositional and functional tests and are evaluating and interpreting the results for the fractions produced in the pilot plant.

Matching Funds:

- SafeSoy - $75,000 (in-kind)
- Crown Iron Works - $20,000 (in-kind)
- ISU - $83,000
    - IAHEES project no 290-40-42
    - Salaries/Benefits for L. Johnson, N. Deak, Technician and undergraduate hourly support

Gasification Technologies in Support of Biorefineries

PI: Robert C. Brown

Metrics:

External funding applied for (indicate received/denied/pending):

GOALI: CFD Modeling and Validation of Biomass Particle Injection in Fluidized Bed Gasifiers, Theodore J. Heindel, Francine Battaglia and John P. Reardon, National Science Foundation. Denied.

Fluidized Bed Modeling and Validation for Gasification and Pyrolysis, Robert C. Brown, Francine Battaglia and Theodore J. Heindel, ConocoPhilips, 04/01/2007-12/31/2007. Received.

Progress report:

The various beds were compared at three different flow rates, and the ratio of superficial gas velocity to minimum fluidization velocity was constant for each bed material. X-ray CT imaging was used to provide a qualitative view of the local time-averaged solids concentration, and clearly showed differences in fluidization between the materials. Computational fluid dynamics (CFD) simulations were used to predict the fluidized bed

behavior for glass beads and ground walnut shell, and were compared with the experimental data. Glass beads were used to validate the appropriate grid resolution for the CFD calculations because the material is well characterized in terms of coefficient of restitution and sphericity.

Matching Funds:

- Frontline BioEnergy - $110,000
- ISU - $22,500
    - Salary/Benefits for R. Brown, F. Battaglia, T. Heindel, S. Sadaka

Designing Corn Lines with Dietary Fiber to Produce Ethnic Foods with Enhanced Health Benefits

PI: Pam White, Linda Pollak and Sue Duvick

Metrics:
External funding applied for (indicate received/denied/pending):
Hendrich, S., P.J. White, and L.M. Pollak, Screening System for Digestion-Resistant Starch. USDA Special Grants Program. Center for Designing Foods to Improve Nutrition, ISU. $30,000 funded through 2008.

Hendrich, S., P.J. White, and L.M. Pollak, Screening System for Digestion-Resistant Starch: Effects on Human Fecal Microbes and Short-chain Fatty Acid Production, ISU Plant Sciences Institute. $50,000 funded through 2009.

White, P.J., J.-L. Jannink, and N. Yao. β-Glucan Structure and Interactions Modulate Physicochemical, Physiological and Sensory Functions of Oats. USDA National Research Initiative, Competitive Grants Program. $495,229 funded through 2010.

J.-L. Jannink, P.J. White, M.P. Scott, K. Moore, R. Wise, and O. Anderson. Association genetics of β-glucan metabolism to enhance oat and barley germplasm for food and nutritional function. USDA National Research Initiative, Competitive Grants Program. $500,000 funded through 2011.

Progress report:
A procedure for extracting the corn starch and determining the RS percentage has been determined by using the Megazyme Resistant Starch Kit. Analyses of various standards, including commercial high amylose (has high amount of RS) corn starch and normal corn starch, have been completed. These standards also have been analyzed on an instrument called a differential scanning calorimeter, which precisely measures heating characteristics of starches, including a measure of the RS.

Matching Funds:

- GEI Enterprises,
- Midwest Dairy Association
- USDA NRI Grant

Development of Resistant and Low-caloric Maltodextrins from Cornstarch

PI: Jay-lin Jane

Metrics:
Publications/presentations based on project: 1

Invention disclosures: 1

External funding applied for (indicate received/denied/pending):
Grow Iowa Values Funding for 2008-09: denied.

Progress report):
Novel technologies for producing resistant and low-caloric maltodextrins have been developed. Using these technologies, resistant and low-caloric maltodextrin products displaying 50% and greater enzyme resistance have been produced in the laboratory. Products made during the period between January and June, 2007 showed enzyme-resistance ranged from 51% to 97% and the water solubility ranged from 84% to 95%. The weight-average molecular weights of these products ranged from 10^3 to 10^5 Da. These products had white to yellowish color and slight off-flavor. The production process has been successfully scaled-up to kilogram size.

Matching Funds:
- GPC - $145,000 ($20,000 in cash, remainder in-kind)

Commercialization of a Corn/Soy Oil-Based Composite Hog Feeder

PI: Distinguished Professor Richard C. Larock

Metrics:
Publications based on project:
- Lu, Y.; Larock, R. C. "Fabrication, Morphology and Properties of Soybean Oil-Based Composites Reinforced with Continuous Glass Fibers", Macromol. Mater. Eng. 2007, submitted.
- Henna, P. H., Larock, R. C. "Rubbery Thermosets Prepared by Ring Opening Metathesis Copolymerization of a Functionalized Castor Oil and Cyclooctene", Macromol. Mater. Eng. 2007, submitted.

Presentations based on project:

- Larock, R. C. “Development of Novel Plastics from Agricultural Oils,” Consortium for Plant Biotechnology Research, Washington D.C., February 13, 2007.

- Larock, R. C. “Adventures in Biopolymers, Iodine Cyclizations, and Palladium Annulation and Migration Chemistry,” First University of Nevada at Reno Chemistry Graduate Student Association Distinguished Lecture Award, Reno, Nevada, February 16, 2007.
- Larock, R. C. “Novel Bioplastics and Composites from Natural Oils,” Ag-West Bio and National Research Council Plant Biotechnology Institute Third Plant Bio-Industrial Oils Workshop, Saskatoon, Saskatchewan, Canada, February 27, 2007.
- Henna, P. H.; Larock, R. C. "Rubbery Thermosets Prepared by Ring Opening Metathesis Copolymerization of a Functionalized Castor Oil and Cyclooctene", 233th American Chemical Society national meeting, March 25-29, 2007.
- Larock, R. C. “Adventures in Biopolymers, Iodine Cyclizations, and Palladium Annulation and Migration Chemistry,” Tohoku University, Sendai, Japan, May 23, 2007.
- Larock, R. C. “Adventures in Biopolymers, Iodine Cyclizations, and Palladium Annulation and Migration Chemistry,” Okayama University, Okayama, Japan, May 29, 2007.
- Larock, R. C. "Novel Bioplastics and Composites from Natural Oils", 234th American Chemical Society national meeting, Boston, Massachusetts, August 21, 2007.
- Valverde, M., Larock, R. C. "Free Radical Synthesis of Rubbers Made Entirely From Highly Unsaturated Vegetable Oils and Derivatives", 234th American Chemical Society national meeting, Boston, Massachusetts, August 19-23, 2007.

Invention disclosures:

- Larock, R. C.; Lu, Y. S. "Bio-based Thermoset Plastic Composite Materials and Methods of Making Same", U.S. patent application 60/839,918 (2006).
- Larock, R. C.; Henna, P. H. "Ring Opening Metathesis Polymerization of Vegetable Oils", ISURF Disclosure, (2007).

External funding applied for:

- "Development of Bioplastic Composites Using Ag Co-product Fillers", Iowa Biotechnology Consortium-USDA, 9/1/06-8/31/07, funded.
- "Biorenewable Composites Reinforced with Under-used Co-products from Ethanol Production", Recycling and Reuse Technology Transfer Center, University of Northern Iowa, 7/1/07-6/30/09, funded.
- "Novel Renewable Bio-based Rubber Composites from Plant Oils and Agricultural Co-products", Iowa State University, Plant Sciences Institute, 7/1/07-6/30/09, funded.
- “Development and Commercialization of Soy/Corn/Linseed Oil Bioplastics”, Consortium for Plant Biotechnology Research, pending.
- "Practical Waterborne Agricultural Oil-based Coatings", Consortium for Plant Biotechnology Research, pending.
- "Novel Waterborne Coatings from Renewable Resources", Nine Sigma, pending.

- "Vegetable Oil Copolymers to Replace Petroleum-Based Matrices in Thermosetting Composites", NIST- ATP, pending.
- "Pultruded Window Frames from Agricultural Oils", Grow Iowa Values Fund, denied.

Progress report: During the last six months, we have made great progress on this project. Our work has focused on optimization of 1) the composition of the vegetable oil-based resin, 2) the ratio of the resin and glass fibers, and 3) the processing conditions, such as cure time, temperature, pressure, etc. So far, we have successfully prepared some very hard composites from several different resins (for example, 50 wt % soybean oil, 25 wt % styrene and 20 wt % divinylbenzene or 25 wt % soybean oil, 25 wt % linseed oil, 28 wt % styrene and 20 wt % divinylbenzene) reinforced with 45-55 wt % glass fibers. The tensile strength and Young's modulus are in the range 100-130 MPa and 2.5-5.0 GPa, respectively. These properties meet the requirements for a viable hog feeder. We have also dramatically shortened the cure time of the composites from 24 hr to 10-20 min, with no reduction in the thermal and mechanical properties.

Matching Funds:

- R3 Composites, AgVantage - $96,000 (in-kind)

Commercialization of a Continuous In-Line Flow Meter

PI: Manjit K. Misra

Metrics:
Invention disclosures: Already patented

Progress report:

A prototype of the flowmeter was installed and tested in the ISU seed conditioning facility. The test apparatus consists of the prototype, a bucket elevator, a 45-bushel holding bin, calibrated slide gate for flow rate control, two way sample diverter valve, and a PC-based data logger. Seed was recycled from the holding bin to the slide gate, through the flow meter, elevator and then back to the bin during continuous operation. Seed samples were collected and weighed at periodic intervals for comparison with flow meter totalized data. A Visual Basic program was developed for collecting the real-time data from the load cell via the data acquisition board.

Matching funds:

- Almaco - $34,500 (in-kind)
- Remington - $8,000 (in-kind)
- ISU - $32,500
    - Salary/Benefits Yuh, Yuan Shyy, Alan Gaul, Technical staff and hourly workers

- Use of test facilities and equipment, software license fees, prototype fabrication and labor for field install and tests

Flaxseed Lignans for Heart Health

PI: Suzanne Hendrich

Metrics:
N/A

Progress report: Tablet formulations have been developed for the 3 supplements (placebo and 2 lignan doses) and tablets are being prepared. Human subjects approval has been obtained and subjects are being recruited according to the approved inclusion/exclusion criteria. The first cohort of 30 subjects is expected to begin the trial in August 2007, with study completion by March 2008.

Matching Funds:

- ADM

Converting Low Value Thin Stillage from Dry Milling Ethanol Plants into High Value Fungal Biomass

PI: J.(Hans) van Leeuwen

Metrics:
Publications/presentations based on project:

- Sindhuja, S., Khanal, S.K., Pometto, A.L. and Van Leeuwen, J. (2007) Sindhuja, S., Khanal, S. K., Pometto, A. L. and Van Leeuwen, J. (2007) Use of microfungi for wastewater treatment and production of high value fungal by-products: A review. *Critical Reviews in Environmental Science and Biotechnology*. (by invitation, in press).
- Rasmussen, M., Kambam, Y., Khanal, S. K., Pometto, A. L. and Van Leeuwen, J. (2007) Thin stillage treatment from dry grind ethanol plants with fungi. ASABE Annual International Meeting (AIM), Jun 17-20, Minneapolis, MN.

Invention disclosures:

- ISURF #03387 "Purification of Thin Stillage from Dry Corn Milling with Fungi"
- This was covered by a provisional patent until last month and a regular patent application was submitted in June 2007, now patent pending.

External funding applied for (indicate received/denied/pending):

- Developing an alternative methodology for stillage treatment and resource recovery based on fungal cultivation, GIVF with Poet assistance – denied

- Developing an alternative methodology for stillage treatment and resource recovery based on fungal cultivation, Biomass Research and Development Initiative USDA/DoE $800,000 with $200,000 co-funding from Poet - pending
- Developing an alternative methodology for Poet's BPX and BFRAC stillage treatment and resource recovery based on fungal cultivation, Poet $300 to $400k - pending

---

Progress report:
Bioreactors were operated to treat thin stillage, the centrate of the distillation leftovers from a dry-grind ethanol plant, Lincolnway Energy with fungi. The aerated reactors were inoculated with spores of *Rhizopus oligosporus*. Mycelial growth was visible within two days after inoculation. By day 3, the 5-L vessel filled with fungal biomass. The total organic concentration of the thin stillage, characterized as chemical oxygen demand (COD) of 94 g/L, was lowered by 77%, after four days of batch fermentation. Continuous operation could achieve 93% COD removal. Total suspended solids in the samples decreased from 30 to less than 0.1 g/L. Water from thin stillage could be recovered without evaporation, in contrast to current technology, with less loss.

Matching Funds:

- Lincolnway Energy - $20,000 (in-kind)
- ADM - $10,000 (in-kind)
- Northern Filter - $18,000 (in-kind)
- ISU - $35,000
    - Salary/Benefits Hans van Leeuwen, Sam Beattie, Alan Trenkle

Ultrasonication in Soy Processing for Enhanced Protein and Sugar Yields and Subsequent Nisin Production

PI: Samir Kumar Khanal

Metrics:
Publications/presentations based on project:
Karki, B*., Lamsal, B. P., Grewell, D., Van Leeuwen, J. and **Khanal, S. K**. Ultrasonication in soy processing for enhanced protein and sugar yields and subsequent bacterial nisin production. ASABE Annual International Meeting (AIM), Jun 17-20, Minneapolis, MN.

Invention disclosures:
Ultrasonication in soy processing for enhanced protein and sugar yields and subsequent nisin production [US Provisional Patent No. 60/914,502].

Progress report:
Several batch sonication experiments were conducted using defatted soybean flakes under controlled temperature conditions. The particle size of sonicated sample decreased by nearly 10 to 15-fold with respect to control at 100% amplitude. The particle size reduction was proportional to power level. The analyses of extract with ultrasound pretreatment under controlled temperature conditions showed improvements in protein

yield by 43% and sugar release by 45% with respect to control. These tests showed that temperature did not have significant effect on protein and sugar yields.

Matching Funds:

- Cargill - $15,000 (in-kind)
- ADM - $7,000 (in-kind)
- P&G - $10,000 (in-kind)
- Branson - $45,000 (in-kind)

Role of Complex Carbohydrates on Colon

PI: Ruth MacDonald

Metrics:
N/A

Progress report: The goal of the project is to develop a suitable animal model and tissue markers to investigate the role of dietary carbohydrates in colon cell physiology. To address this goal, we have undertaken a series of animal feeding trials using soy-based products. The animal trials have been completed and we are in the process of analyzing tissue samples. In one model, we induced inflammation in the colon that would be similar to that observed in humans with inflammatory bowel disease. The tissues from these animals are being studied for specific markers of tissue damage and changes in cell physiology to determine if the dietary components protected the cells from the insult. We are working on tools to examine cellular changes in the colon of these animals and identifying appropriate biomarkers.

Matching Funds:

- ISU Ag Experiment Station Technician salary/benefits

Development of a Novel Gene Therapy Approach for Parkinson's Disease by Targeting a Cleavage Site of a Proapoptotic Kinase

PI: Anumantha G Kanthasamy

Metrics:
Invention disclosures: In addition to the progress below, we have also formed a small startup company called PK Biosciences. This will foster our efforts to commercialize this and other novel technologies.

Progress report:

As proposed, we began examining the neuroprotective effect of lentiviruses coding for the PKCδ cleavage motif triplet peptides $QDAM_3$, $DMQD_3$ and $DMQA_3$ in cell culture and animal models of Parkinson's disease. First, we cloned the PKCδ cleavage

site sequence in $QDAM_3$ in LentiTopoV5 vector and then generated lentiviruses coding for the $QDAM_3$ triplet peptide. LacZ was used as a negative control. To determine the transduction efficiency of the lentiviruses coding for LacZ and $QDAM_3$, N27 cells were transduced with different titers. Immunocytochemical analysis revealed >80% transduction efficiency. Lentiviruses coding for $DMQD_3$, and $DMQA_3$ but not $QDAM_3$ were found to be protective against MPP^+-induced proteolytic activation and cell death, confirming their neuroprotective effect in cell culture models of Parkinson's disease.

Matching Funds:

- ISU - $50,000 (W. Eugene and Linda Lloyd Endownment and salary savings funds)
    - Salary/Benefits An. Kanthasamy, Ar. Kanthasamy, V. Anatharam, post-doc
    - Equipment, animals and animal care, travel & publication costs

Purification and Quality Enhancement of Fuel Ethanol to Produce Industrial Alcohols with Ozonation and Activated Carbon

PI: Jacek Koziel

Metrics:
Publications/presentations based on project:

- Purification and Quality Enhancement of Fuel Ethanol to Produce Industrial Alcohols with Ozonation and Activated Carbon (2007 ASABE Annual International Meeting, Minneapolis, MN June 2007)
- Purification of Alcohol with Ozonation and Activated Carbon (Institute for Food Safety and Security symposium, Ames, IA April 2007, Air & Waste Management Association Iowa Chapter meeting, Des Moines, IA March 2007, Biorenewable Resources and Technology Research Symposium, Ames, IA April 2007, and Iowa Renewable Fuels Association meeting, Ames, IA March 2007).

Awards received: Grand Prize for Research from the American Association of Environmental Engineers, May 2007

Progress report (300 word maximum): The pure feed gas providing setup improved ozone gas quality significantly. However, it was also found that the ozone generator produced impurities in ozone gas during the ozone generating process. To improve ozone gas quality, a new ozone generator was introduced, which is consisted of less ozone reactive materials. Also, our original ozone generator was designed .It is consisted of only non-ozone reactive materials such as stainless steel, glass, and PTFE. It is expected that purer ozone gas provides more precise data of the purification efficiency.

Matching Funds:

- MellO3Z - $55,000 (in-kind)

- Lincolnway Energy - $10,000 (in-kind)
- Fischer Law Firm – $14,400
- ISU Salary & Benefits (Van Leeuwen, Koziel)

Ultrasonic Assisted Exfoliation of Bio-Renewable Polymer Nanocomposites with Micro-Cellular Structures

PI: David Grewell
CoPIs: Michael Kessler, Howard Van Auken

Metrics:
Publications/presentations based on project:
Journal Article:

- Maria Vlad, Gowrishankar Srinivasan, David Grewell, *Improvement of the mechanical properties of soy protein isolate based plastics through formulation and processing,* International Polymer Processing Journal, In Press.

Conference Papers:

- Maria Vlad, Gowrishankar Srinivasan, David Grewell, Improvement of the mechanical properties of soy protein isolate based plastics*, Proceedings of the 65th Annual Technical Conference for the Society of Plastics Engineers* (2007), Society of Plastics Engineers, Brookfield, CT

- Gowrishankar Srinivasan, Michael Kessler, David Grewell, Casting of Zein Protein Polymers, *Proceedings of the 65th Annual Technical Conference for the Society of Plastics Engineers* (2007), Society of Plastics Engineers, Brookfield, CT

- David Grewell, Maria Vlad, Gowrishankar Srinivasan, Improvement Of The Mechanıcal Propertıes Of Soy Protein Isolate Based Polymers, The Polymer Processing Society 23rd annual meeting, Salvador,Brazil, May 27-31, 2007

Magazine articles:

- David Grewell, Mike Kessler, Maria Vlad, Gowrishankar Srinivasan, *Enhancing Plastic from Naturally Occurring Proteins*, Submitted November 2006, SPG Media Group PLC, Brunel House, London W2 1LA, UK

- David Grewell, Michael Kessler, and William Graves, *Protein-based Plastics and Applications*, Bioplastics Magazine, Issue 02/2007 (June).

External funding applied for (indicate received/denied/pending):

Status	Title	Sponsor	Amount	PI	Co-PI(s)
Funded	*Degradable pots for plants*	Horticultural ResearchInstitute	$14,000	William Grave	David Grewell
Pending	*Protein plastics and application development*	USDA-CSREES	$416,875	D. Grewell	Mike Kessler, Deland Myers

---

Progress report:
For Zein-based plastic, it was observed that moisture absorption increased with immersion time. However, an unexpected phenomenon of fluctuation in water uptake was observed with both concentrations of nanoclay formulations. It was observed that, initially, water absorption was negative and generally remained relatively low and in some cases remained negative (Figure 1). A possible hypothesis for this observation was that the exfoliated nanoclay distribution acted as a diffusion barrier preventing water from diffusing into the samples.

Matching Funds:

- Creative Composites - $10,000 (in-kind)
- Vermeer - $10,000 (in-kind)
- Trexel/Zien/Branson $38,500 (in-kind)
- ISU - $12,000 (equipment)

Modular BL3 Facility

PI: Don Reynolds

Metrics:
External funding applied for (indicate amount & received/denied/pending):
Kellogg Foundation - $1 million / Denied

Progress report:

To date, $10,785 has been spent on the planning of the BL3 modular laboratory. This planning has resulted in various sites being considered for the BL3 at the VMRI and at the Vet Med complex. It has been revealed that VMRI is at capacity with regard to utilities and adding more facilities is not possible without major expansion of infrastructure which is beyond the scope of this project. The sites located near the Vet Med complex are being considered and planning is under way in preparation for an upcoming CPC meeting.

Matching Funds: Approximately $2.0M is needed for the project, they are still in the process of securing the funding.

6. Please provide the following information about Battelle-funded projects for FY 2007:
    a. Identify and briefly describe each project or initiative which received Battelle funding in FY 2007 including information on outcomes or progress made
    b. Identify metrics which were used to measure outcomes for each project and report progress on each metric for FY 2007

A copy of the full report submitted to the Board of Regents in August is attached to this report (see Attachment F).

METRICS:
Metrics for Battelle are the same as GIVF, publication/presentation, honors/awards, external funding (leverage), and intellectual property. A summary across all platforms and sources of funding includes:

Publication/Presentations: 21
Intellectual Property disclosures: 2
External Funding (leverage): 46 grants have been applied for, as of July 01, 2007, 15 awards have been received totaling **$8,266,000**.

ANIMAL SYSTEMS

Platform Chair: Max Rothschild

Highlights:

- 50 pig genes have been selected and molecular markers have been identified for 28 of these genes. These markers will be useful in marker-assisted breeding for improved characteristics in pigs. These markers were developed using equipment purchased with the battelle infrastructure funds.
- A study is underway to evaluate the effects of high carbohydrate vs. high fat diets in pigs. The feeding trials have been done and samples taken to prepare for microarray analysis
- The project that is studying transmissible spongiform encephalophathies has formed a collaboration with a small company in Iowa City (iOptics, LLC)
- Improvements have been made to the Kildee Hall Animal Facilities to allow expanded housing of canine and feline animals. Animals are predicted to be able to move into the new facility in August 2007.

ADVANCED FOOD & FEED

Platform Chair: Ruth MacDonald

Highlights:

- The Wellness Center is open for business.
    - One project has started and two more are in the planning stages.
    - One full time staff has been hired, salary provided by the College of Human Sciences
    - Diane Birt has been named the Interim Director effective September 1, 2007
- A two-day symposium was held – the first annual Advanced Foods for Health Symposium – and attended by more than 100 people
- Several companies have toured the Wellness Center and indicated that this will be a valuable resource to companies.

ADVANCED MANUFACTURING

Platform Chair: Ron Cox

Highlights:

- Discussions are ongoing to determine the best use of the funds

---

BIOECONOMY

Platform Chair: Robert Brown

Highlights:

- In the syngas cleanup effort, updates are being made to existing equipment in order to evaluate a variety of feedstocks. In addition, a new method for gas clean-up is being installed.
- A microreactor was designed, constructed, and used for CO-water mass transfer measurements and initial experiments show that the CO-water volumetric mass transfer coefficients are repeatable under a variety of conditions.
- A continuous syngas fermentation system is under development to improve on the previous batch-process, to produce polyhydroxy alkanoate (PHA) biopolymers. Battelle infrastructure funds are being used to develop this system.
- E.Coli were successfully engineered to co-produce acetaldehyde and hydrogen from glucose. Work is continuing to increase and optimize production
- Six rhodospirillum rubrum genes have been identified that are involved in PHA production. Further study of these genes can lead to enhanced production of PHA from syngas fermentation
- A new pyrolyzer has been designed and constructed. In addition, an analytical instrumentation laboratory has been set up to analyze the products produced from pyrolysis
- Infrastructure funds have also been used to renovate research laboratories and provide essential equipment for three faculty in the Department of Chemistry. **This support led to more than $13,450,000 in grant submissions, with more than $5,320,000 already awarded**
- A laser system capable of performing planar imaging of sprays and combusting flows has been purchased – two projects are currently underway

---

BIOSECURITY

Platform Chair: Manjit Misra

Highlights:

- Instrumentation has been purchased and installed for the Antimicrobial and Prebiotic Discovery Initiative
    - SOP's have been developed for two procedures

    - Assistant Scientist has been hired
    - Commercial advisors have been selected and bi-monthly meetings are taking place
- Iowa Livestock Traceability project
    - Key barriers have been identified
    - Software revisions are underway
    - 30 people have been trained to use the software, in collaboration with UNI
    - Training has been approved for 3 continuing education credits
- The upgrade of a lab to a BL2 was approved by ISU, and equipment has been purchased with a renovation completion set at Fall 2007
- A field building has been erected for the college of agriculture

---

INFORMATION TECHNOLOGY

Platform Chair: Jim Oliver

Highlights:

- The CyberInnovation Institute has moved into their new location at the ISU Research Park
- ISU was invited to join the Great Lakes Consortium for Petascale Computation led by the National Center for Supercomputing Applications (NCSA) at the University of Illinois, Urbana-Champaign. This regional consortium is a finalist in the National Science Foundation's "High Performance Computing System Acquisition: Towards a Petascale Computing Environment for Science and Engineering" program, a $500M project to build the ultimate high-performance computer.
- April 25-27 the CyberInnovation Institute (CII) hosted the "Emerging Technologies Conference" ETC 2007. This three-day event featured research progress and economic development activities of all CII's research centers and attracted more than 450 attendees.
- In May the Center for Information Assurance hosted the second annual "Cyber Defense Competition" for regional high school students at the CyberInnovation Institute's new facilities at 2321 North Loop Drive in Ames. This two-day event was attended by more than 50 students and attracted substantial media attention.
- A high-performance computing system has been purchased for the Windus group. They have applied for nearly $10.5M in funding (all pending) to utilize the system.
- A computer cluster with 16 nodes and 32 processors has been purchased for the Wang group. They have secured funding from DARPA for experimentation.

ENDOWED CHAIRS PROGRAM

Of the $2 M allocated for matching funds ($1public:$2private) for endowed chairs, $500,000 in matching funds will be added to $1M in private gift funds received in April

2007 to create the W. Eugene Lloyd Chair in Toxicology in the College of Veterinary Medicine. The College has not appointed a faculty member to this chair and no expenditures have been made from the endowment.

Numerous proposals for endowed chairs related to the Biorenewables area are pending and matching dollars have been discussed with the donors on a first to be funded will be the first qualified for matching basis.

Commitments on these proposals are expected during the fall to utilize the remaining matching funds.

7. Optional: If desired, please include observations regarding:
    a. Availability of startup and venture capital for technology entrepreneurs
    b. Suggestions for new programs or activities that could further enhance the impact of university technology transfer and service on creation of jobs and wealth in Iowa.

7.A Iowa continues to suffer from a lack of investment capital for start up and rapidly growing technology/innovation based firms.

- The Values Funds to the universities have provided a valuable source of funding for proof of concept/early stage development funding for the innovations that will become the next generation of businesses.

- There has been an increase in the number of Angel/Seed funds throughout the state. Available capital and experience varies widely and there is little coordination between the funds. The seed funds have typically brought more individual investors into play.

- The funding provided by Wellmark through the Pappajohn Center's has been a very valuable tool for early stage investment.

- There are very few true venture capital firms located in the state of Iowa actively investing funds at this point in time.

- Each fund has a particular focus, the investment profile further limiting choices and resulting in very little competition.

- Most venture firms invest with other venture firms, one as lead with the others in secondary positions to spread risk and assure the ability to continue to fund the needs of the company--this is a major problem in Iowa.

- Firms must look outside the state for significant investments of $5 million plus.

- Really good businesses with really good management teams will attract money; a major problem is the development of an experienced/skilled management team.

7.B.1 Restoration of funds for economic development and technology transfer activities due to budget cuts in the past several years would greatly enhance the University's efforts in this area. The following is a summary of what benefits would occur if funds

were restored in the three units affected by budget cuts. (This information is the same information provided to the Board of Regents' staff in August, 2007.)

- **Small Business Development Centers**: Restoring $300,000 of state funding would bring the Small Business Development Centers to the 2001 level and would allow us to see more clients, offer additional training and target additional services to high potential clients. Currently a high majority of our centers have very limited or no support staff. This means that we have highly trained professionals answering the phone and entering data instead of providing counseling and training for entrepreneurs. Along with increased client assistance, additional funding would also help us restore the South Central SBDC, headquartered in Creston, to full funding status. In terms of outcomes, we estimate that this additional funding would lead to the creation of over 300 new jobs, leverage 15 million dollars in additional financing and result in sales increases of 50 million dollars for Iowa companies.

- **Iowa State University Research Park**: The restoration of approximately $230,000 in funding to the Iowa State University Research Park would provide direct benefit to Iowa State University efforts to establish and support new technology ventures. New funds would be utilized to support the costs of providing incubator space and the support services required by new and early stage companies. The additional funds will increase the capacity for business incubation resulting in more new companies created and higher quality support for the young companies.

- **Institute for Physical Research and Technology (IPRT)**: In recent years the IPRT economic development programs suffered a loss of over $2,500,000 in budget cuts. Ironically, these cuts came at a time when the need for IPRT's expertise by Iowa industries was rapidly growing. Although much of the program has survived the cuts, it now serves only a fraction of the Iowa companies it once served and the current personnel are overextended. Each year since the budget cuts, both the technology commercialization unit and the technical assistance unit have had unmet requests for assistance to Iowa companies. The attached chart shows the reductions in overall company assistance over the period of 1993 to 2007.

  A unique feature of the economic development program in IPRT is the active participation of scientists from internationally renowned ISU centers such as the Center for Nondestructive Evaluation, the Virtual Reality Applications Center and the Center for Catalysis. Also, these centers have excellent track records of spinning off new Iowa businesses in the areas in which they excel. Unfortunately, budget cuts reduced our ability to inform Iowa manufacturers about our industrial outreach program, which provides firms with the know-how to apply the results of cutting-edge research to their issues of quality control. This loss also meant that students who previously received training in doing the basic engineering work for projects no longer have this important hands-on industrial experience.

  The technology commercialization unit has administered cost-sharing, contract research projects and since 1993 has leveraged tax dollars slightly better than 4 to 1. The staff are frustrated — they are working with Iowa's small to medium-

sized manufacturers and identifying research and development needs that can be addressed by university teams of faculty scientists and engineers. These small companies have very limited R&D dollars and facilities, and now, this unit does not have the funds needed to leverage the companies' limited resources. These are projects with obvious economic impact—introduction of new products, addressing manufacturing processes, and improving quality—all areas that impact Iowa's global competitiveness in the manufacturing sector.

The materials assistance unit of the IPRT economic development program provides short-term technical assistance to Iowa manufacturers and is often the first interaction manufacturers have with the University. Restoration of funding would allow for growth of materials assistance, enhancing their delivery of services in three crucial areas. First they would be able to alleviate saturation of their available resources by adding a new staff member, thereby increasing their responsiveness to Iowa manufacturers. Second, by adding a staff member with complementary expertise, they will be able to offer a wider scope of services directly meeting the needs of Iowa manufacturers. Results of recent surveys of Iowa manufacturers by IPRT and CIRAS indicate that materials and quality issues associated with metallurgical processing, material selection, fabrication, and especially, coatings for wear and corrosion protection remain top priorities. If funding becomes available, they will hire staff with coating expertise. Finally they would utilize a portion of this additional funding to reinstate technical assistance projects with the broader University community. Both the traditional IPRT economic development units and the new emerging Centers such as the Center for Building Energy Research are dedicated to enhancing the state's competitiveness. Restoring the budget cuts to IPRT units would have a rapid and quantifiable impact on Iowa's manufacturing sector. An investment now will result in continuing benefits to Iowa's companies, important opportunities to retain our brightest students, and new industries based on discoveries in ISU's world-class Centers.

7.B.2 Provide funds for development of a central database by IDED of Iowa technology companies, contacts, and areas of technology interest. This database should be web based for updating by the companies and access by the Iowa university technology transfer offices as well as linkages to the universities' technologies available for licensing. This could lead to a broader pool of Iowa companies for the technology transfer offices to contact and potentially license. This could also potentially lead to more funding from Iowa companies to the university researchers.

Research Park

	FY05	FY06	FY07
Number of companies in Research Park	51	48	61
Private companies	41	39	47
University-related	10	9	14
Number of new companies in Research Park	6	6	16
Private companies	6	6	10
University-related	0	0	6
Number of employees in companies in Research Park	619	621	636
Private companies	397	400	390
University-related	222	221	246
Number of startup companies in Research Park	3	5	6

Disclosures, Patents, Licenses, New Starts

	FY05	FY06	FY07	AUTM Ranking*
Number of invention disclosures	142	120	114	21st (tie)
Number of patents filed	54	52	41	47th
Number of patents awarded	15	19	26	53rd
Number of licenses and options executed (in total)**	218	140	113	2nd
Number of licenses and options executed (in Iowa)	98	42	62	
Revenues (in total)	$4,935,000	$8,064,000	$8,127,000	46th
Revenues (in Iowa)	$534,000	$669,000	$672,000	
Number of startup companies formed (in total)***	5	3	2	22nd (tie)
Number of startup companies formed (in Iowa)	2	1	2	

AUTM (Association of University of Technology Managers) is a national association that conducts annual surveys--most recent data published was based on FY05 and included 158 U.S. university participants.
**Over the last three years, licenses for plant varieties have accounted for 81% of total licenses and options. The decline in total numbers for FY06 and FY07 is due to a different method of accounting for plant variety licensing
***Through licensing activities

Research Funding Received

	FY05	FY06	FY07
Research funding	$179,800,000	$171,400,000	$167,100,000
Research funding from industry (in total)	$16,000,000	$15,500,000	$14,200,000
Research funding from Industry (in Iowa)	$11,200,000	$10,600,000	$8,100,000

			Iowa Companies and Communities Served by ISU during FY07		
	County	City/Town	Name of Company or Community Served	Name of ISU Unit Providing Assistance	Type of Assistance
	Adair	Greenfield	Bull Technologies and Manufacturing	College of Engineering	BAC
	Adair	Greenfield	Grow Iowa Foundation	College of Engineering	BCOM, BAC
	Adair	Greenfield	CAI Students	Crop Advisor Institute	PWD
	Adair	Greenfield	Greenfield	Families Extension	OCOM
	Adair	Orient	City of Orient	Agricultural Education and Studies	FAC
	Adair	Greenfield	Greenfield	Extension CED	TCOM
	Adair	Greenfield	Keller Manufacturing	Extension CED	BAC
	Adair	Orient	Midwest Partnership Corporation	Extension CED	FAC/ BCOM
	Adair		Renew Rural Iowa	Extension CED	FAC
	Adair		Rural Development Resource Center: Grow Iowa Fund; Wallace Fund; Southwest Iowa Coalition	Extension CED	BAC/ TCOM/ FAC/ BCOM
	Adair		Southwest Iowa Coalition	Extension CED	FAC
	Adair	Adair	Adair-Casey Community	ISU Extension	BCOM
	Adair		Adair County RC&D	ISU Extension	BCOM
	Adair	Greenfield	City of Greenfield/Main Street	ISU Extension	BCOM
	Adair	Fontanelle	City of Fontanelle/Enterprise Club	ISU Extension	BCOM
	Adair		Adair County Empowerment	ISU Extension	FAC
	Adair	Greenfield	Nodaway Valley Community Schools	ISU Extension	OCOM
	Adair		Adair County Home Care	ISU Extension	OCOM
	Adair	Adair	Little Bomber Preschool	ISU Extension	PWD
	Adair	Menlo	West Central Community Schools	ISU Extension	PWD
	Adair	Bridgewater	B-F Prekindergarten	ISU Extension	PWD
	Adair	Greenfield	Nodaway Valley Developmental Preschool	ISU Extension	PWD
	Adair	Orient	Shared Visions O-M	ISU Extension	PWD
	Adair	Greenfield	Little Lambs	ISU Extension	PWD
	Adair	Greenfield	Sunshine Day Care Center	ISU Extension	PWD
	Adair	Adair	Owner Revolution Inc	ISUE-CIRAS	TAC
	Adair	Greenfield	Cardinal Glass Industries Inc	ISUE-CIRAS	TAC
	Adair	Greenfield	Cardinal Glass Industries Inc	ISUE-CIRAS	TAC
	Adair	Greenfield	Greenfield	ISU Extension	OCOM
	Adair		Adair County Farm Bureau	Extension CED	FAC/ BCOM
	Adair		Adair County Supervisors	Extension CED	FAC/ BCOM
	Adair		Adair County Tourism	Extension CED	FAC/ BCOM
	Adair		Cardinal IG	Extension CED	FAC/ BCOM
	Adair		City of Greenfield	Extension CED	FAC/ BCOM
	Adair		Greenfield Chamber/Mainstreet & Development	Extension CED	FAC/ BCOM
	Adair		Greenfield Implement Company	Extension CED	FAC/ BCOM
	Adair		Greenfield Municipal Utilities	Extension CED	FAC/ BCOM
	Adair		Multi-State Regional Development	Extension CED	FAC
	Adair		Regional Foods Working Group	Extension CED	BAC
	Adair		Rural Development Resource Center	Extension CED	FAC
	Adair		Rural Development Summit	Extension CED	FAC
	Adair		Wash Haus, LLC	Extension CED	FAC/ BCOM
	Adair	Greenfield	Adair Co. Cattlemen	External Relations	FAC
	Adair		Empowering Adair County Foundation	ISU Extension	FAC
Adair County	44				44
	Adams	Corning	Adams County Great Places	IDRO	BCOM
	Adams	Corning	Adams County Economic Development Corporation	College of Engineering	BCOM
	Adams	Corning	Corning Meat Processing	Meat Science Extension	PWD
	Adams	Corning	Adams County Great Places	IDRO	BCOM
	Adams	Corning	Corning	Extension CED	TCOM
	Adams	Corning	Johnny Carson Birthplace	Extension CED	BAC
	Adams		Adams County	Extension CED	FAC
	Adams		Adams County Farm Bureau	Extension CED	FAC/ BCOM
	Adams		Emerald Hills Dairy Consortium	Extension CED	BAC
	Adams		Grundman Insurance	Extension CED	FAC/ BCOM
	Adams		McMahon Drug Store	Extension CED	FAC/ BCOM
	Adams		Regional Foods Working Group	Extension CED	BAC
	Adams		Renew Rural Iowa	Extension CED	FAC
	Adams	Corning	Adams County - VITA site	Families	OCOM
	Adams	Corning	Ron Corey vineyard & winery	Midwest Grape & Wine Industry Institute	TAC, BAC
	Adams	Corning	Adams County - VITA site	ISU Extension	OCOM
	Adams	Corning	Adams Co. Steer Carcass Futurity	External Relations	FAC
	Adams		Adams Community Chamber of Commerce	Extension CED	FAC/ BCOM
	Adams		Adams Community Economic Development, Corning Chamber/Mainstreet	Extension CED	BCOM
	Adams		Corning Community School District	Extension CED	FAC/ BCOM
	Adams		Corning Nursing & Rehab Center	Extension CED	FAC/ BCOM
	Adams		Midwest Opportunities	Extension CED	FAC/ BCOM
	Adams		Miltner Insurance	Extension CED	FAC/ BCOM
	Adams		Multi-State Regional Development	Extension CED	FAC
	Adams		Okey Vernon First National Bank	Extension CED	FAC/ BCOM
	Adams		Regional Marketing	Extension CED	BCOM
	Adams		Rural Development Resource Center: Grow Iowa Fund; Wallace Fund; Southwest Iowa Coalition	Extension CED	BAC/ TCOM/ FAC/ BCOM
	Adams		Rural Development Summit	Extension CED	FAC

	Adams		Second Home Subdivision	Extension CED	BAC
	Adams		Southern Iowa Council of Government	Extension CED	BCOM
	Adams		Southwest Iowa Coalition	Extension CED	FAC
Adams County	31				31
	Allamakee	New Albin	Trinity Fabrications	College of Business	FAC
	Allamakee	Postville	Norplex-Micarta	OIPTT	BAC
	Allamakee	Upper Explorerland	Building & Zoning	CRP	TCOM
	Allamakee	Postville	Norplex - Micarta	IPRT Company Assistance-NDE	TAC
	Allamakee	Postville	Agriporcessors	Meat Science Extension	PWD
	Allamakee	Waukon	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Allamakee	Waukon	Jet's Meat Processing	Meat Science Extension	PWD
	Allamakee	Waukon	Quillin's Meat Processing Plant	Meat Science Extension	PWD
	Allamakee	Lansing	Nex-Gen Biofuels, Inc.	Extension CED	BAC
	Allamakee	Upper Explorerland	Building & Zoning	Extension CED, CRP Extension	TCOM
	Allamakee	Waukon	NE Iowa Community Development Conference	Extension CED	FAC
	Allamakee		Northeast Iowa Food & Farm Coalition	Allamakee County Extension	BCOM
	Allamakee		Northeast Iowa Food & Fitness Initiative	Allamakee County Extension	BCOM
	Allamakee	Waukon	Allamakee County Economic Development	Allamakee County Extension	BCOM
	Allamakee	Waukon	Waukon Chamber of Commerce	Allamakee County Extension	FAC
	Allamakee	Postville	Postville Chamber of Commerce	Allamakee County Extension	FAC
	Allamakee	Lansing	Lansing Chamber of Commerce	Allamakee County Extension	FAC
	Allamakee	Waukon	Allamakee Substance Abuse Prevention	Allamakee County Extension	OCOM
	Allamakee	Waukon	Allamakee County Auditor	Allamakee County Extension	OCOM
	Allamakee	Waukon	Community Connections	Allamakee County Extension	OCOM
	Allamakee	Waukon	Veterans Memorial Hospital	ISU Extension	OCOM
	Allamakee	Lansing	Kerndt Brothers Savings Bank	ISU Extension	PWD
	Allamakee	Lansing	Lansing Housing Products, Inc.	ISUE-CIRAS	TAC
	Allamakee	New Albin	Trinity Fabricators Inc	ISUE-CIRAS	BAC
	Allamakee	Lansing	Lansing Housing Products, Inc.	ISUE-CIRAS	BAC
	Allamakee	Postville	Norplex Micarta	ISUE-CIRAS	BAC
	Allamakee	New Albin	Trinity Fabricators Inc	ISUE-CIRAS	TAC
	Allamakee	Postville	Norplex Micarta	ISUE-CIRAS	TAC
	Allamakee	Waukon	Allamakee Co.	CTRE/CP Tech	PWD
	Allamakee	Waukon	Iowa DOT	CTRE/CP Tech	PWD
Allamakee County	30				30
	Allamakee		Allamakee County Auditors	Extension CED	OCOM
	Allamakee		NE Iowa Community Development Conference	Extension CED	FAC
	Allamakee		NE Iowa Food & Farm Coalition	CD-DIAL - Sociology Extension	BAC
	Allamakee		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
Allamakee County	4				4
	Appanoose	Centerville	Results Consulting, LLC	OIPTT	BAC
	Appanoose	W. Centerville	GIS Technician	CRP	TCOM
	Appanoose	W. Centerville	The Building Inspectors	CRP	TCOM
	Appanoose		Board of Administrators	CRP	TCOM
	Appanoose	Centerville	Irvin Company	College of Engineering	BAC
	Appanoose	Centerville	Results Consulting, inc.	College of Engineering	FAC
	Appanoose	Centerville	Rattlers	College of Engineering	FAC
	Appanoose	Centerville	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Appanoose	Centerville	Indian Hills Community College	Agricultural Education and Studies	OCOM
	Appanoose	Moravia	City of Moravia	Extension CED	BCOM
	Appanoose	Moravia	Moravia	Extension CED	TCOM
	Appanoose	W. Centerville	GIS Technician	Extension CED, CRP Extension	TCOM
	Appanoose	W. Centerville	The Building Inspectors	Extension CED, CRP Extension	TCOM
	Appanoose		Administrator	Extension CED, CRP Extension	TCOM
	Appanoose	Centerville	Mercy Medical Center	ISU Extension	PWD
	Appanoose	Centerville	Appanoose Biofuels, LLC	ISUE-CIRAS	TAC
	Appanoose	Centerville	Media Tech	ISUE-CIRAS	BAC
	Appanoose	Centerville	B and K Machining	ISUE-CIRAS	TAC
	Appanoose	Centerville	Secondary Roads	CTRE/CP Tech	PWD
	Appanoose		Administrator	CRP	TCOM
	Appanoose		Supervisor	CRP	TCOM
	Appanoose		Zoning Administrator	CRP	TCOM
	Appanoose		ADLM Empowerment Board	CD-DIAL - Sociology Extension	OCOM
	Appanoose		Appanoose County Auditors	Extension CED	OCOM

	Appanoose		Board of Administrators	Extension CED, CRP Extension	TCOM
	Appanoose		Supervisor	Extension CED, CRP Extension	TCOM
	Appanoose		Zoning Administrator	Extension CED, CRP Extension	TCOM
Appanoose County	27				27
	Audubon	Audubon	Distance Education Students = 3	Brenton Ctr for Ag Instruction	PWD
	Audubon	Audubon	Audubon Community Schools	Agricultural Education and Studies	OCOM
	Audubon	Manning	Manning Community School	Agricultural Education and Studies	FAC
	Audubon		Regional Foods Working Group	Extension CED	BAC
	Audubon		Rural Development Resource Center: Grow Iowa Fund; Wallace Fund; Southwest Iowa Coalition	Extension CED	BAC/ TCOM/ FAC/ BCOM
	Audubon	Audubon	Audubon	ISU Extension, Audubon County	FAC
	Audubon	Audubon	Hobby Farms	ISUE-CIRAS	TAC
	Audubon	Audubon	Audubon Co.	CTRE/CP Tech	PWD
	Audubon	Audubon	City of Audubon	CTRE/CP Tech	PWD
	Audubon		Audubon County Auditors	Extension CED	OCOM
	Audubon		Audubon County Economic Development Corporation	Extension CED	FAC/ BCOM
	Audubon		Multi-State Regional Development	Extension CED	FAC
	Audubon		Renew Rural Iowa	Extension CED	FAC
	Audubon		Rural Development Resource Center	Extension CED	FAC
	Audubon		Rural Development Summit	Extension CED	FAC
	Audubon		Southwest Iowa Coalition	Extension CED	FAC
	Audubon	all communities	Volunteer Income Tax Assistance	ISU Extension	OCOM
Audubon County	17				17
	Benton	Vinton	MellO3z	OIPTT	BAC
	Benton	Urbana	Urbana Planning & Zoning Chair	CRP	TCOM
	Benton	Van Horne	Benton Community H.S.	College of Engineering / ABE (PLTW)	OCOM
	Benton	Norway	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Benton	Mt. Auburn	Distance Education Students = 5	Brenton Ctr for Ag Instruction	PWD
	Benton	Norway	Frontier Natural Products	Organic Ag Program (K. Delate; Agronomy & Horticulture)	TAC
	Benton	Urbana	Urbana Planning & Zoning Chair	Extension CED, CRP Extension	TCOM
	Benton		25 entrepreneurs	Extension CED	BAC
	Benton		Benton County	Extension CED	PWD
	Benton		Benton County Developing Dynamic Leaders	Extension CED	OCOM
	Benton		NE Iowa Community Development Conference	Extension CED	FAC
	Benton	Vinton	Vinton	Benton County Extension CEED	BCOM
	Benton	Vinton	Vinton Shellsburg Community School District	Benton County Extension CEED	OCOM
	Benton		Shawn Ritter Farm	Extension/Iowa Beef Center	TAC
	Benton	Watkins	Natural Soy Products, LLC	ISUE-CIRAS	TAC
	Benton	Vinton	City of Vinton	CTRE/CP Tech	PWD
	Benton	Vinton	Fischer Law Firm LLP	Industry Relations	TAC
	Benton		Benton - ISU Extension County Office Marketing Surveys	CD-DIAL - Sociology Extension	BAC
	Benton		Benton County	Extension CED	PWD
	Benton		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
	Benton	Vinton	Benton Co.	CTRE/CP Tech	PWD
	Benton	Vinton	Benton Co.	CTRE/CP Tech	PWD
Benton County	22				22
	Black Hawk	Cedar Falls	Telemedicine International	OIPTT	FAC
	Black Hawk	Gilbertville	Gilbertville	Landscape Architecture, IDRO	BCOM
	Black Hawk	Hudson	Commissioner-BOA	CRP	TCOM
	Black Hawk	Hudson	Zoning Administrator	CRP	TCOM
	Black Hawk	Waterloo	Deere and Company	College of Engineering	TAC
	Black Hawk	Waterloo	John Deere	College of Engineering	PWD
	Black Hawk	Waterloo	Engineered Products Company	IPRT Company Assistance-NDE	TAC
	Black Hawk	Waterloo	John Deere - Waterloo Foundry	IPRT Company Assistance-NDE	TAC
	Black Hawk	Waterloo	John Deere Waterloo Works	IPRT Company Assistance-Technology Commercialization	TT
	Black Hawk	Waterloo	Waterloo Police Department	Midwest Forensics Resource Center, IPRT	PWD
	Black Hawk	Cedar Falls	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Black Hawk	La Porte City	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD

	Black Hawk	Raymond	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Black Hawk	Waterloo	Distance Education Students = 3	Brenton Ctr for Ag Instruction	PWD
	Black Hawk	Hudson	Distance Education Students = 4	Brenton Ctr for Ag Instruction	PWD
	Black Hawk	Waterloo	East High School	College of Engineering / ABE (PLTW)	OCOM
	Black Hawk	Waterloo	Tyson Foods	Meat Science Extension	PWD
	Black Hawk	Cedar Falls	Stonebridge Ltd.	ISURF	TT
	Black Hawk	Cedar Falls	University of Northern Iowa Facilities Planning Department	Extension CED	PWD
	Black Hawk	Gilbertville	Gilbertville	Landscape Architecture, IDRO	BCOM
	Black Hawk	Hudson	Commissioner-BOA	Extension CED, CRP Extension	TCOM
	Black Hawk	Hudson	NE Iowa Community Development Conference	Extension CED	FAC
	Black Hawk	Hudson	Zoning Administrator	Extension CED, CRP Extension	TCOM
	Black Hawk	Waterloo	Compassion Iowa - Nonprofit Management Academy	Extension CED	PWD
	Black Hawk	Waterloo	NE Iowa Community Development Conference	Extension CED	FAC
	Black Hawk	Waterloo	Waterloo	Extension CED	OCOM/ PWD
	Black Hawk	Waterloo	Young Parents Together Coalition	Extension CED	FAC
	Black Hawk		Black Hawk County	Extension CED	OCOM/ TCO/ PWD
	Black Hawk	All	Compassion Iowa Management Series	Black Hawk County Extension	BAC
	Black Hawk	Waterloo	Opportunity Works Community Service Network	Black Hawk County Extension	FAC
	Black Hawk	Waterloo	Waterloo Chamber of Commerce	Black Hawk County Extension	FAC
	Black Hawk	Waterloo	Public Safety Grant Committee	Black Hawk County Extension	FAC
	Black Hawk	Cedar Falls	Chamber of Commerce Education Committee	Black Hawk County Extension	FAC
	Black Hawk	Waterloo	Cedar Valley's Promise	Black Hawk County Extension	OCOM
	Black Hawk	Evansdale	City of Evansdale	Black Hawk County Extension	OCOM
	Black Hawk	All	County's School Superintendents	Black Hawk County Extension	OCOM
	Black Hawk	Waterloo	Waterloo Community Schools	Black Hawk County Extension	OCOM
	Black Hawk	Waterloo	Emergency Management Team	Black Hawk County Extension	OCOM
	Black Hawk	Waterloo	El Centro Latinoamericano	Black Hawk County Extension	OCOM
	Black Hawk	Waterloo	Operation Threshold	Black Hawk County Extension	OCOM
	Black Hawk	Waterloo	Renato Gonzalez - University of Colima	Black Hawk County Extension	PWD
	Black Hawk	All	Black Hawk County Soil Survey	Black Hawk County Extension	TAC
	Black Hawk	Waterloo	John Deere Waterloo Works	ANR Extension	PWD
	Black Hawk	Waterloo	Applebee's	ISU Extension	PWD
	Black Hawk	Waterloo	Barnes and Noble	ISU Extension	PWD
	Black Hawk	Evansdale	Flying J	ISU Extension	PWD
	Black Hawk	Waterloo	Bertch Cabinet Manufacturing	ISU Extension	TAC
	Black Hawk	Waterloo	Bertch Cabinet Manufacturing	ISUE-CIRAS	TAC
	Black Hawk	Waterloo	Bertch Cabinet Manufacturing	ISUE-CIRAS	TAC
	Black Hawk	Waterloo	Chromavantage	ISUE-CIRAS	BAC
	Black Hawk	Waterloo	Cedar Industries Inc.	ISUE-CIRAS	BAC
	Black Hawk	Waterloo	O'Neal Steel Inc	ISUE-CIRAS	TAC
	Black Hawk		Event in Black Hawk County	ISUE-CIRAS	TAC
	Black Hawk		Event in Black Hawk County	ISUE-CIRAS	TAC
	Black Hawk		Event in Black Hawk County	ISUE-CIRAS	TAC
	Black Hawk	Cedar Falls	Wood Components and Technologies	ISUE-CIRAS	TAC
	Black Hawk	Cedar Falls	City of Cedar Falls	CTRE/CP Tech	PWD
	Black Hawk	Cedar Falls	Power Pavers, Inc.	CTRE/CP Tech	PWD
	Black Hawk	Cedar Falls	UNI	CTRE/CP Tech	PWD
	Black Hawk	Elk Run Heights	United Concrete Inc.	CTRE/CP Tech	PWD
	Black Hawk	Evansdale	City of Evansdale	CTRE/CP Tech	PWD
	Black Hawk	Waterloo	Ament, Inc.	CTRE/CP Tech	PWD
	Black Hawk	Waterloo	Black Hawk Co.	CTRE/CP Tech	PWD
	Black Hawk	Waterloo	Black Hawk Co. Courthouse	CTRE/CP Tech	PWD
	Black Hawk	Waterloo	Cedar Valley Corp.	CTRE/CP Tech	PWD
	Black Hawk	Waterloo	City of Waterloo	CTRE/CP Tech	PWD
	Black Hawk	Waterloo	Earth Tech	CTRE/CP Tech	PWD
	Black Hawk	Waterloo	Iowa DOT	CTRE/CP Tech	PWD
	Black Hawk	Waterloo	Manatt's	CTRE/CP Tech	PWD
	Black Hawk	Cedar Falls	The Institute for Decision Making - The University of Northern Iowa	Industry Relations	BCOM

	Black Hawk	Waterloo	Deere & Company	Virtual Reality Applications Center, IPRT	BAC, TAC, FAC, PWD
	Black Hawk	Cedar Falls	Nutriant, division of Kerry Foods	FSHN	TAC
	Black Hawk	Waterloo	Waterloo Dietetic Association	FSHN	PWD
	Black Hawk	Waterloo	Hawkeye Communtiy College	Agricultural Education and Studies	OCOM
	Black Hawk	Waterloo	Hawkeye Communtiy College	Agricultural Education and Studies	OCOM
	Black Hawk	Waterloo	Family & Children's Council, Waterloo	Johnson County Extension	PWD
	Black Hawk	Waterloo	Waterloo Dietetic Association	Dietetics Internship faculty 4/1	PWD
	Black Hawk		Black Hawk County Auditors	Extension CED	OCOM
	Black Hawk		Black Hawk County Auditors	Extension CED	OCOM
	Black Hawk		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
Black Hawk County	80				80
	Boone	Boone	Vibroacoustics Solutions	OIPTT	BAC
	Boone	Boone	Alliant Energy	College of Engineering	BAC
	Boone	Woodward	Woodward Resource Center	College of Engineering	TAC
	Boone	Boone	Boone High School	College of Engineering / ABE (PLTW)	OCOM
	Boone	Boone	British Petroleum	Ag Engineering/Agronomy Farm, ISU	FAC
	Boone	Boone	Distance Education Students = 5	Brenton Ctr for Ag Instruction	PWD
	Boone	Madrid	Distance Education Students = 6	Brenton Ctr for Ag Instruction	PWD
	Boone	Rural Area	United Community School	An Sci -- Microbiology Program	OCOM
	Boone	Woodward	Woodward Granger Community Schools	Agricultural Education and Studies	OCOM
	Boone	Boone	Boone Community Schools	Agricultural Education and Studies	OCOM
	Boone	Boone	Boone	Extension CED	PWD
	Boone	Boone	Boone Co. Hospital Foundation	Extension CED	PWD
	Boone	Boone	Central District Conference, EFCA	Extension CED	PWD
	Boone	Boone	ISU-CFAH	Extension CED	PWD
	Boone	Boone	Scared Heart School/Church	Extension CED	PWD
	Boone		Boone County Auditors	Extension CED	OCOM
	Boone		Boone County	Boone County Extension	FAC
	Boone		Boone County	Boone County Extension	OCOM
	Boone		Boone County	Boone County Extension	OCOM
	Boone		Boone County	Boone County Extension	OCOM
	Boone		Boone County	Boone County Extension	PWD
	Boone		Boone County	Boone County Extension	PWD
	Boone	Boone	Godfather's Pizza	ISU Extension	PWD
	Boone	Boone	Gates Corp	ISUE-CIRAS	TAC
	Boone	Boone	Boone Co.	CTRE/CP Tech	PWD
	Boone	Boone	PowerFilm	Industry Relations	TAC
	Boone	Boone	Vibroacoustic Solutions	Industry Relations	TAC
	Boone		Boone County	Extension CED	PWD
	Boone		Boone County	Extension CED	OCOM/ PWD
	Boone		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
	Boone		United Community School District	CD-DIAL - Sociology Extension	OCOM
Boone County	31				31
	Bremer	Denver	Denver	Landscape Architecture, IDRO	BCOM
	Bremer	Readlyn	Readlyn	Landscape Architecture, IDRO	BCOM
	Bremer	Waverly	Rada Manufacturing Company	IPRT Company Assistance-Materials	TAC
	Bremer	Waverly	United Equipment Accessories, Inc.	IPRT Company Assistance-NDE	TAC
	Bremer	Denver	Denver High School	College of Engineering / ABE (PLTW)	OCOM
	Bremer	Janesville	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Bremer	Sumner	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Bremer	Waverly	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Bremer	Denver	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Bremer	Sumner	Sumner Locker & Catering	Meat Science Extension	PWD
	Bremer	Denver	Denver	Landscape Architecture, IDRO	BCOM
	Bremer	Readlyn	Readlyn	Landscape Architecture, IDRO	BCOM
	Bremer	Waverly	NE Iowa Community Development Conference	Extension CED	FAC
	Bremer		Bremer County Auditors	Extension CED	OCOM
	Bremer	Tripoli	beef farms	Robert Tigner	BAC
	Bremer	Sumner	Community Memorial Hospital	ISU Extension	OCOM
	Bremer	Waverly	The Larrabee Center	ISU Extension	OCOM
	Bremer	Sumner	Hillcrest Home	ISU Extension	OCOM
	Bremer	Sumner	Sumner Community Schools	ISU Extension	OCOM

	Bremer	Waverly	G & R Publishing	ISU Extension	PWD
	Bremer	Denver	Schumacher Elevator	ISU Extension	PWD
	Bremer	Plainfield	Environmental Lubricants Manufacturing, Inc.	ISUE-CIRAS	TAC
	Bremer	Waverly	GMT Corp	ISUE-CIRAS	TAC
	Bremer	Waverly	United Equipment Accessories	ISUE-CIRAS	TAC
	Bremer	Waverly	GMT Corp	ISUE-CIRAS	TAC
	Bremer	Janesville	E.B. Spencer Engineering Co.	CTRE/CP Tech	PWD
	Bremer	LeRoy	Luther's Smokehouse	Meat Science Extension	PWD
	Bremer		Bremer County	Extension CED	OCOM
	Bremer		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
Bremer County	29				29
	Buchanan	Jesup	Jessup	Landscape Architecture, IDRO	BCOM
	Buchanan	Independence	John Deere JDPS EE	College of Engineering	PWD
	Buchanan	Rowley	Mark's Locker	Meat Science Extension	PWD
	Buchanan	Jesup	Jesup	Landscape Architecture, IDRO	BCOM
	Buchanan	Jesup	NE Iowa Community Development Conference	Extension CED	FAC
	Buchanan		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
	Buchanan	Independence	Kegler, Kegler & Arend	ISU Extension	PWD
	Buchanan	Independence	Independence Corn By-Products	ISUE-CIRAS	BAC
	Buchanan	Independence	Geater Machining and Mfg Co	ISUE-CIRAS	TAC
	Buchanan	Fairbank	Buchanan Co.	CTRE/CP Tech	PWD
	Buchanan	Independence	Buchanan County EDC	Industry Relations	BCOM
	Buchanan	Independence	Heartland Acres Agribtion Center	Buchanan County Extension	BCOM
	Buchanan	All Communities	Buchanan County Health and Safety Team	Buchanan County Extension	OCOM
	Buchanan	All Communities	Independence Area Food Pantry	Buchanan County Extension	OCOM
	Buchanan	All Communities	Pathways Behavioral Services	Buchanan County Extension	OCOM
	Buchanan	Amish Settlement	Amish School System Hazleton Settlement	Buchanan County Extension	OCOM
Buchanan County	16				16
	Buena Vista	Newell	DFS Animal Nutrition	College of Business	BAC
	Buena Vista	Storm Lake	Storm Lake	Landscape Architecture, IDRO	BCOM
	Buena Vista	Storm Lake	GroWind, Inc.	College of Engineering	BAC
	Buena Vista	Storm Lake	Heritage Bank	College of Engineering	FAC
	Buena Vista	Newell	4-H Booster Club	Allee Research Farm, ISU	OCOM
	Buena Vista	Albert City	Ag Partners	Economics, CCUR & others	FAC
	Buena Vista	Alta	Ag Partners L.L.C.	Agricultural & Biosystem Engineering - STIR	TAC
	Buena Vista	Newell	BV County Regional Hospital	Allee Research Farm, ISU	OCOM
	Buena Vista	Newell	BV Special Swine Project	ISU Extension	OCOM
	Buena Vista	Newell	Corn Grower's Association	Allee Research Farm, ISU	FAC
	Buena Vista	Alta	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Buena Vista	Marathon	Distance Education Students = 3	Brenton Ctr for Ag Instruction	PWD
	Buena Vista	Newell	Newell Historic Society	Allee Research Farm, ISU	OCOM, FAC
	Buena Vista	Newell	Newell/Fonda School Dist	Allee Research Farm, ISU	OCOM
	Buena Vista	Rembrandt	Rembrandt Enterprieses Inc	Animal Science-Bregendahl	TAC
	Buena Vista	Storm Lake	Sara Lee Foods	Meat Science Extension	PWD
	Buena Vista	Storm Lake	Tyson Foods	Meat Science Extension	PWD
	Buena Vista	Albert City	Ag Partners	Economics, CCUR & others	FAC
	Buena Vista	Alta	Alta	Extension CED	OCOM
	Buena Vista	Alta	Tri-Co Health Network	Extension CED	PWD
	Buena Vista	Rembrandt	Rembrandt	Extension CED	OCOM
	Buena Vista	Sioux Rapids	Sioux Rapids	Extension CED	OCOM
	Buena Vista	Storm Lake	Storm Lake	Landscape Architecture, IDRO	BCOM
	Buena Vista		Livestock producers and regulators	Extension CED	TCOM
	Buena Vista	Storm Lake	Prairie Lakes Area Education Association	4-H Operation: Military Kids	OCOM
	Buena Vista		24 election officials certified	CED	OCOM
	Buena Vista	Storm Lake	Kuehl & Payer Ltd.	CTRE/CP Tech	PWD
	Buena Vista	Albert City	Ag Partners	Economics, CCUR & others	FAC
	Buena Vista		24 election officials certified	Extension CED	OCOM
	Buena Vista		Buena Vista County Auditors	Extension CED	OCOM
Buena Vista County	30				30
	Butler	Aplington	Aplington	Landscape Architecture, IDRO	BCOM
	Butler	Parkersburg	Parkersburg	Landscape Architecture, IDRO	BCOM
	Butler	Shell Rock	Shell Rock	Landscape Architecture, IDRO	BCOM
	Butler	Parkersburg	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD

	Butler	Greene	Distance Education Students = 3	Brenton Ctr for Ag Instruction	PWD
	Butler	Aplington	Aplington	Landscape Architecture, IDRO	BCOM
	Butler	Aplington	NE Iowa Community Development Conference	Extension CED	FAC
	Butler	Parkersburg	NE Iowa Community Development Conference	Extension CED	FAC
	Butler	Parkersburg	Parkersburg	Landscape Architecture, IDRO	BCOM
	Butler	Shell Rock	Shell Rock	Landscape Architecture, IDRO	BCOM
	Butler		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
	Butler	Allison	Allison	Butler County Extension	BCOM
	Butler	Allison	community groups on Bioeconomy-2X	Robert Tigner	FAC
	Butler	Dumont	Dumont Telephone	ISU Extension	PWD
	Butler	Allison	Butler - Grundy County REC	Industry Relations	BCOM
	Butler	Butler County	Butler County Resource Development Group	Butler County Extension	FAC
Butler County	16				16
	Butler		Butler County Auditors	Extension CED	OCOM
Butler County	1				1
	Calhoun	Somers	CAI Students	Crop Advisor Institute	PWD
	Calhoun	Pomeroy	Distance Education Students = 4	Brenton Ctr for Ag Instruction	PWD
	Calhoun	Farnhamville	Farnhamville Coop	ABE/IGQI	BAC, TAC
	Calhoun	Lake City	Lake City Locker	Meat Science Extension	PWD
	Calhoun	Farnhamville	Northwest Grape Growers Assn	Midwest Grape & Wine Industry Institute	FAC
	Calhoun	Rockwell City	Twin Lakes Steaks	Webster Co. Extension - CEED	BAC
	Calhoun	Lake City	Lake City Horizons	ISU Extension	OCOM
	Calhoun	Farnhamville	Farmers Cooperative Co	ISUE-CIRAS	TAC
	Calhoun	Rockwell City	Calhoun/Sac Co.	CTRE/CP Tech	PWD
	Calhoun	Farnhamville	Farnhamville Coop	ABE/IGQI	BAC
	Calhoun	Farnhamville	Farnhamville Coop	ABE/IGQI	TAC
	Calhoun	Farnhamville	Business Unit info & planning	Greene County Extension	FAC, BAC
	Calhoun	Various	Wall Street Journal	ABE/IGQI	FAC
	Calhoun	Yetter	Yetter Locker	Meat Science Extension	PWD
	Calhoun		Calhoun County Auditors	Extension CED	OCOM
Calhoun County	15				15
	Carroll	Templeton	Accusteel Inc	College of Business	BAC
	Carroll	Carroll	Goodrich Turbine	College of Business	PWD
	Carroll	Manning	Asst. County Attorney	CRP	TCOM
	Carroll	Manning	City Manager	CRP	TCOM
	Carroll	Ralston	Renewable Energy Group	College of Engineering	FAC
	Carroll	Ralston	West Central	College of Engineering	TAC
	Carroll	Ralston	West Central Cooperative	College of Engineering	TAC
	Carroll	Ralston	West Central Cooperative	Center for Catalysis, IPRT	TT
	Carroll	Manning	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Carroll	Carroll	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Carroll	Carroll	Farmland Foods	Meat Science Extension	PWD
	Carroll	Carroll	Mike's Meats	Meat Science Extension	PWD
	Carroll	Ralston	Renewable Energy Group	CCUR	FAC
	Carroll	Carroll	St Anthony Regional Hospital	FSHN	PWD
	Carroll	Ralston	West Central Cooperative	CCUR	FAC, TAC, TT
	Carroll	Ralston	Renewable Energy Group	CCUR	FAC
	Carroll	Ralston	West Central Cooperative	CCUR	FAC, TAC, TT
	Carroll	Ralston	West Central Cooperative	ISURF	TT
	Carroll	Carroll	United Way of Carroll	Extension CED	PWD
	Carroll	Manning	Asst. County Attorney	Extension CED, CRP Extension	TCOM
	Carroll	Manning	City Manager	Extension CED, CRP Extension	TCOM
	Carroll		Carroll County	Extension CED	TAC; PWD
	Carroll		Farmers Cooperative	Extension CED	BAC
	Carroll	Willey	Santa Maria Winery	Midwest Grape & Wine Industry Institute	BAC
	Carroll	Carroll	Child Care Providers	ISU Extension	PWD
	Carroll	Carroll	New Opportunities	ISU Extension	PWD
	Carroll	Ralston	West Central Cooperative	ISUE-CIRAS	FAC
	Carroll	Ralston	West Central Cooperative	ISUE-CIRAS	TAC
	Carroll	Ralston	West Central Cooperative	ISUE-CIRAS	TAC
	Carroll		12 small businesses	CED (Access eCommerce)	BAC
	Carroll	Carroll	ACTS Inc.	ISU Carroll County Extension	BAC
	Carroll	Carroll	Brown & Associates	ISU Carroll County Extension	BAC
	Carroll	Carroll	EnviroWaste Technology Inc.	ISU Carroll County Extension	BAC
	Carroll	Carroll	Jan Abbe Interiors	ISU Carroll County Extension	BAC
	Carroll	Carroll	New Hope Village	ISU Carroll County Extension	BAC

	Carroll	Carroll	New Opportunities	Families Extension	PWD
	Carroll	Carroll	No-Burn of Central Iowa	ISU Carroll County Extension	BAC
	Carroll	Carroll	Old Alley Gallery	ISU Carroll County Extension	BAC
	Carroll	Carroll	Smiley Worms	ISU Carroll County Extension	BAC
	Carroll	Carroll	Snare Shop	ISU Carroll County Extension	BAC
	Carroll	Carroll	Sound Solutions	ISU Carroll County Extension	BAC
	Carroll	Manning	Struve Labs. Inc.	ISU Carroll County Extension	BAC
	Carroll	Carroll	The Flower Garden	ISU Carroll County Extension	BAC
	Carroll	Carroll	Well Done Menus	ISU Carroll County Extension	BAC
	Carroll	Carroll	City of Carroll	CTRE/CP Tech	PWD
	Carroll	Carroll	JEO	CTRE/CP Tech	PWD
	Carroll	Ralston	Renewable Energy Group	OBP	BAC, FAC, TAC
	Carroll	Ralston	Renewable Energy Group	CCUR	FAC
	Carroll	Ralston	West Central Cooperative	CCUR	FAC, TAC, TT
	Carroll	Carroll	St Anthony Regional Hospital	Dietetics Internship faculty 6/2	PWD
	Carroll		12 small businesses	Extension CED	BAC
	Carroll		Carroll County Auditors	Extension CED	OCOM
	Carroll		Rural Development Resource Center: Grow Iowa Fund; Wallace Fund; Southwest Iowa Coalition	Extension CED	BAC/ TCOM/ FAC/ BCOM
	Carroll		Rural Development Summit	Extension CED	FAC
Carroll County	54				54
	Cass	Griswold	Board of Supervisors	CRP	TCOM
	Cass	Griswold	Engineer	CRP	TCOM
	Cass	Griswold	Planning & Zoning Board Member	CRP	TCOM
	Cass	Griswold	Planning & Zoning Commission	CRP	TCOM
	Cass	Griswold	Planning Admin. Assistant	CRP	TCOM
	Cass	Atlantic	Global Horizons	College of Engineering	BCOM,BAC
	Cass	Atlantic	Cass/Atlantic Development Corporation	College of Engineering	BCOM
	Cass	Atlantic	Precision Manufacturing	College of Engineering	TAC
	Cass	Marne	Arnie's Artworks	College of Engineering	BAC
	Cass	Atlantic	MAHLE Engine Components USA, Inc.	IPRT Company Assistance-NDE	TAC
	Cass	Anita	Anita Meats	Meat Science Extension	PWD
	Cass	Atlantic	Atlantic Locker	Meat Science Extension	PWD
	Cass	Atlantic	Cass Co. Master Gardeners	Armstrong Research Farm, ISU	TAC
	Cass	Cumberland	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Cass	Wiota	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Cass	Atlantic	Nex-Gen Biofuels, Inc.	Extension CED	BAC
	Cass	Atlantic	SW Iowa Family Services	CD-DIAL - Sociology Extension	OCOM
	Cass	Griswold	Board of Supervisors	Extension CED, CRP Extension	TCOM
	Cass	Griswold	Community Builders Speculative House	Extension CED	TCOM
	Cass	Griswold	Engineer	Extension CED, CRP Extension	TCOM
	Cass	Griswold	Planning & Zoning Board Member	Extension CED, CRP Extension	TCOM
	Cass	Griswold	Planning & Zoning Commission	Extension CED, CRP Extension	TCOM
	Cass	Griswold	Planning Admin. Assistant	Extension CED, CRP Extension	TCOM
	Cass		Bio-Economy Meeting	Extension CED	FAC
	Cass		Camblin Mechanical, Inc.	Extension CED	FAC/ BCOM
	Cass		Cass County Farm Bureau	Extension CED	FAC/ BCOM
	Cass		Emerald Hills Dairy Consortium	Extension CED	BAC
	Cass		Regional Foods Working Group	Extension CED	BAC
	Cass		Regional Marketing	Extension CED	BCOM
	Cass		Renew Rural Iowa	Extension CED	FAC
	Cass		Rural Development Summit	Extension CED	FAC
	Cass		Southwest Iowa Latino Resource Center	Extension CED	BAC
	Cass	Atlantic	Cass/Atlantic Development Corporation	Cass County Extension	FAC
	Cass	County	P.R.I.D.E. (Cass County Economic Development	Cass County Extension	FAC
	Cass	all communities	Volunteer Income Tax Assistance	ISU Extension	OCOM
	Cass	Atlantic	The Plastic Professionals	ISUE-CIRAS	TAC
	Cass	Atlantic	The Plastic Professionals	ISUE-CIRAS	TAC
	Cass	Lewis	BIOWA Development Association	ISUE-CIRAS	FAC
	Cass	Atlantic	Atlantic Machine and Fabrication	ISUE-CIRAS	BAC
	Cass	Atlantic	Dana Glacier Daido Co	ISUE-CIRAS	TAC
	Cass	Atlantic	Iowa DOT	CTRE/CP Tech	PWD
	Cass	Atlantic	Iowa DOT Materials	CTRE/CP Tech	PWD
	Cass	Atlantic	Snyder & Associates, Inc.	CTRE/CP Tech	PWD
	Cass	Atlantic	Southwest Iowa Concrete Polishing	CTRE/CP Tech	PWD
	Cass	Atlantic	Southwest Iowa Culitvators	NCRCRD	FAC

	Cass	Griswold	Amos Sweet Corn	Armstrong Research Farm, ISU	TAC
	Cass	Lewis	TCSCF Cooperative	Darrell Busby SW IA Beef Speciailist	BAC
	Cass	Lewis	Certified Angus Beef & TCSCF Cooperative	Darrell Busby SW IA Beef Speciailist	TAC
	Cass		A.M. Cohron & Sons, Inc.	Extension CED	FAC/ BCOM
	Cass		A-Plus Designs	Extension CED	FAC/ BCOM
	Cass		Cass County Auditors	Extension CED	OCOM
	Cass		Cass County Board of Supervisors	Extension CED	FAC/ BCOM
	Cass		Cass-Atlantic Development Corporation	Extension CED	FAC/ BCOM
	Cass		Cass-Atlantic Economic Development; PRIDE (economic development)	Extension CED	BCOM
	Cass		City of Griswold	Extension CED	FAC/ BCOM
	Cass		Multi-State Regional Development	Extension CED	FAC
	Cass		National Center for Appropriate Technology	Extension CED	FAC/ BCOM
	Cass		Rural Development Resource Center	Extension CED	FAC
	Cass		Rural Development Resource Center: Grow Iowa Fund; Wallace Fund; Southwest Iowa Coalition	Extension CED	BAC/ TCOM/ FAC/ BCOM
	Cass		Snyder & Associates, Inc.	Extension CED	FAC/ BCOM
	Cass		Southwest Iowa Coalition	Extension CED	FAC
	Cass		Van Ginkel Law Office	Extension CED	FAC/ BCOM
	Cass		Wallace Foundation for Rural Research & Development	Extension CED	FAC/ BCOM
	Cass		Wells Fargo Bank - Atlantic	Extension CED	FAC/ BCOM
Cass County	64				64
	Cedar	Tipton	Tipton	Landscape Architecture, IDRO	BCOM
	Cedar	Durant	Schumacher Company, LC	IPRT Company Assistance-Materials	TAC
	Cedar	Durant	Durant Locker	Meat Science Extension	PWD
	Cedar	Clarence	IMPA	Meat Science Extension	PWD
	Cedar	Tipton	Tipton Locker	Meat Science Extension	PWD
	Cedar	Tipton	NE Iowa Community Development Conference	Extension CED	FAC
	Cedar	Tipton	Tipton	Landscape Architecture, IDRO	BCOM
	Cedar	Tipton	Tipton Community Visioning	Cedar County Extension	BCOM
	Cedar	Tipton	Cedar County Senior Citizens, Tipton	Johnson County Extension	PWD
	Cedar	Tipton	Prairie Hill	ISU Extension	PWD
	Cedar	Tipton	Dairy Queen	ISU Extension	PWD
	Cedar	Tipton	Cedar Co.	CTRE/CP Tech	PWD
	Cedar	Tipton	Cedar Co. Secondary Roads	CTRE/CP Tech	PWD
	Cedar		Cedar County Auditors	Extension CED	OCOM
	Cedar		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
Cedar County	15				15
	Cerro Gordo	Thornton	Niman Ranch Pork	ISU Extension	OCOM
	Cerro Gordo	Mason City	Metal Craft	College of Engineering	FAC
	Cerro Gordo	Clear Lake	Larson Manufacturing Company	IPRT Company Assistance-Materials	TAC
	Cerro Gordo	Clear Lake	Larson Manufacturing Company	IPRT Company Assistance-NDE	TAC
	Cerro Gordo	Clear Lake	Clear Lake Specialty Products	IPRT Company Assistance-Technology Commercialization	TT
	Cerro Gordo	Mason City	Metalcraft	IPRT Company Assistance-Technology Commercialization	TT
	Cerro Gordo	Mason City	Armour-Eckrich Meats LLC.	Meat Science Extension	PWD
	Cerro Gordo	Mason City	Campbell Industries	CCUR	TAC
	Cerro Gordo	Clear Lake	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Cerro Gordo	Mason City	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Cerro Gordo	Swaledale	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Cerro Gordo	Mason City	Freedom Fuels	Agricultural & Biosystem Engineering - STIR	TAC
	Cerro Gordo	Mason City	Innovative Growers LLC	CCUR	FAC
	Cerro Gordo	Mason City	Mercy Medical Center	FSHN	PWD
	Cerro Gordo	Thornton	Niman Ranch	SEU - CDFIN	TAC
	Cerro Gordo	Mason City	Ralph's Old Fashon Canned Meat	Meat Science Extension	PWD
	Cerro Gordo	Ventura	Ventura Locker	Meat Science Extension	PWD
	Cerro Gordo	Mason City	Northeast Iowa Community College	Agricultural Education and Studies	OCOM
	Cerro Gordo	Mason City	Campbell Industries	CCUR	TAC
	Cerro Gordo	Mason City	Innovative Growers LLC	CCUR	FAC
	Cerro Gordo	Thornton	Niman Ranch	SEU - CDFIN	TAC
	Cerro Gordo	Mason City	NE Iowa Community Development Conference	Extension CED	FAC
	Cerro Gordo		Cerro Gordo County Auditors	Extension CED	OCOM
	Cerro Gordo		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
	Cerro Gordo	Mason City	Mason City Youth Task Force	4-H Youth Development	OCOM
	Cerro Gordo	Mason City	Prairie Adventures Partnership	4-H Youth Development	OCOM
	Cerro Gordo	Rockwell	Rockwell-Swaledale Community School	4-H Youth Development	OCOM

	Cerro Gordo	Clear Lake	National Model T Assoc annual rally	Cerro Gordo County Extension	BAC
	Cerro Gordo	Mason City	Jan Libby Farmers Market NI Assoc	Cerro Gordo County Extension	BAC
	Cerro Gordo	Mason City	North Iowa Coop	Cerro Gordo County Extension	BAC
	Cerro Gordo	Mason City	Chamber of Commerce Ag Committee	Cerro Gordo County Extension	BCOM
	Cerro Gordo	Mason City	Mason City Econ Development	Cerro Gordo County Extension	BCOM
	Cerro Gordo	Mason City	Regional Planning Group North Iowa	Cerro Gordo County Extension	BCOM
	Cerro Gordo	Mason City	Bio Village Group	Cerro Gordo County Extension	BCOM
	Cerro Gordo	Mason City	CARE Advisory Group	Cerro Gordo County Extension	BCOM
	Cerro Gordo	Mason City	Mason City Downtown Association	Cerro Gordo County Extension	BCOM
	Cerro Gordo	Mason City	Chamber of Commerce Ag/City show	Cerro Gordo County Extension	FAC
	Cerro Gordo	Mason City	NI Head Start Annual Mtg Facilitator	Cerro Gordo County Extension	FAC
	Cerro Gordo	Mason City	NIACC	Cerro Gordo County Extension	OCOM
	Cerro Gordo	Mason City	Mason City Econ Develop	Cerro Gordo County Extension	OCOM
	Cerro Gordo	Mason City	NIACC/AEA	Cerro Gordo County Extension	OCOM
	Cerro Gordo	Mason City	United Way	Cerro Gordo County Extension	OCOM
	Cerro Gordo	Mason City	Community Kitchen of North Iowa	Cerro Gordo County Extension	OCOM
	Cerro Gordo	Clear Lake	Central Gardens Association	Cerro Gordo County Extension	OCOM
	Cerro Gordo	Clear Lake	women farm operators and land owners	Robert Tigner	BAC
	Cerro Gordo	Clear Lake	Clear Lake Chamber of Commerce	Midwest Grape & Wine Industry Institute	FAC
	Cerro Gordo	Mason City	Low Income earners and elderly	ISU Extension	OCOM
	Cerro Gordo	Mason City	Early Childhood Center	ISU Extension	OCOM
	Cerro Gordo	Mason City	Transition Advisory Board	ISU Extension	OCOM
	Cerro Gordo	Mason City	Cerro Gordo Public Health	ISU Extension	PWD
	Cerro Gordo	Mason City	Graham Manufacturing Corp	ISUE-CIRAS	TAC
	Cerro Gordo	Mason City	IMI Cornelius Inc	ISUE-CIRAS	TAC
	Cerro Gordo		Event in Cerro Gordo County	ISUE-CIRAS	FAC
	Cerro Gordo	Mason City	Metalcraft Inc	ISUE-CIRAS	TAC
	Cerro Gordo	Mason City	Graham Manufacturing Corp	ISUE-CIRAS	TAC
	Cerro Gordo	Mason City	Metalcraft Inc	ISUE-CIRAS	TAC
	Cerro Gordo	Mason City	IMI Cornelius Inc	ISUE-CIRAS	TAC
	Cerro Gordo	Mason City	IMI Cornelius Inc	ISUE-CIRAS	TAC
	Cerro Gordo	Clear Lake	City of Clear Lake	CTRE/CP Tech	PWD
	Cerro Gordo	Clear Lake	Yohn Ready Mix	CTRE/CP Tech	PWD
	Cerro Gordo	Mason City	Cerro Gordo Co.	CTRE/CP Tech	PWD
	Cerro Gordo	Mason City	City of Mason City	CTRE/CP Tech	PWD
	Cerro Gordo	Mason City	Iowa DOT	CTRE/CP Tech	PWD
	Cerro Gordo	Mason City	Iowa DOT District 2	CTRE/CP Tech	PWD
	Cerro Gordo	Mason City	Ryken Engineering	CTRE/CP Tech	PWD
	Cerro Gordo	Mason City	WHKS & Co.	CTRE/CP Tech	PWD
	Cerro Gordo	Mason City	Yaggy Colby Associates	CTRE/CP Tech	PWD
	Cerro Gordo	Mason City	Innovative Growers LLC	CCUR	FAC
	Cerro Gordo	Thornton	Niman Ranch	SEU - CDFIN	TAC
	Cerro Gordo	Mason City	Campbell Industries	CCUR	TAC
	Cerro Gordo	Mason City	Mercy Medical Center	Dietetics Internship faculty 6/2	PWD
	Cerro Gordo	Thornton	Niman Ranch	David Stender	BAC
	Cerro Gordo	Clear Lake	Administrator	CRP	TCOM
	Cerro Gordo	Clear Lake	Administrator	Extension CED, CRP Extension	TCOM
	Cerro Gordo	Mason City	Mason City Economic Development Corporation	OIPTT	BCOM
	Cerro Gordo	Mason City	NIACC John Pappajohn Entrepreneurial Center	OIPTT	BCOM
	Cerro Gordo	Mason City	NIACC John Pappajohn Entrepreneurial Center	OIPTT	FAC
Cerro Gordo County	77				77
	Cherokee	Cherokee	Cherokee	Landscape Architecture, IDRO	BCOM
	Cherokee	Cherokee	Advance Foods	Meat Science Extension	PWD
	Cherokee	Cherokee	American Natural Soy/Spectrum Organics	Organic Ag Program (K. Delate; Agronomy & Horticulture)	TAC
	Cherokee	Cherokee	Tyson Prepared Foods	Meat Science Extension	PWD
	Cherokee	Cherokee	Cherokee	Landscape Architecture, IDRO	BCOM
	Cherokee	Cherokee	Valley Vet Center	David Stender	TAC
	Cherokee	Aurelia	Sleezer Fertility Center	David Stender	BAC
	Cherokee	Cherokee	Tyson Retail Deli	ISU Extension	PWD
	Cherokee	Cherokee	Cherokee Co. Public Health	ISU Extension	PWD
	Cherokee	Cherokee	Chronicle Times	ISU Extension	PWD

	Cherokee	Cherokee	Cherokee Public Library	ISU Extension	PWD
	Cherokee	Cherokee	Fareway Food Store	ISU Extension	PWD
	Cherokee	Cherokee	First Cooperative Association	ISU Extension	PWD
	Cherokee	Cherokee	Cherokee Villa	ISU Extension	PWD
	Cherokee	Cherokee	Hy-Vee Food Store	ISU Extension	PWD
	Cherokee	Cherokee	Hy-Vee Warehouse	ISU Extension	PWD
	Cherokee	Cherokee	Lundell Construction Co., Inc	ISU Extension	PWD
	Cherokee	Cherokee	Mental Health Institute	ISU Extension	PWD
	Cherokee	Cherokee	R.J. Thomas Manufacturing	ISU Extension	PWD
	Cherokee	Cherokee	Schoon Construction, Inc	ISU Extension	PWD
	Cherokee	Cherokee	Sioux Valley Memorial Hospital	ISU Extension	PWD
	Cherokee	Cherokee	Plymouth Life	ISU Extension	PWD
	Cherokee	Marcus	Marcus-Meridan-Cleghorn Comm School	ISU Extension	PWD
	Cherokee	Quimby	Simonsen Industries, Inc	ISU Extension	PWD
	Cherokee	Cherokee	Bright Beginnings	ISU Extension	PWD
	Cherokee	Cherokee	Cherokee Regional Medical Center	ISU Extension	PWD
	Cherokee	Marcus	Marcus Bowl	ISU Extension	PWD
	Cherokee	Cherokee	Dairy Queen	ISU Extension	PWD
	Cherokee	Cherokee	Cherokee Bowling Alley	ISU Extension	PWD
	Cherokee	Cherokee	Little Sioux Laser	ISUE-CIRAS	BAC
	Cherokee	Marcus	Sand Seed Service Inc	ISUE-CIRAS	TAC
	Cherokee		24 election officials certified	CED	OCOM
	Cherokee	Cherokee	Bright Beginnings	Family Life Staff	PWD
	Cherokee	Cherokee	Cherokee Bowling Alley	Families Extension	PWD
	Cherokee	Cherokee	Cherokee Regional Medical Center	Families Extension	PWD
	Cherokee	Cherokee	Dairy Queen	Families Extension	PWD
	Cherokee		Emergency Management Agency	Lyon & Osceola Extension	OCOM
	Cherokee	Marcus	Marcus Bowl	Families Extension	PWD
	Cherokee		NW Ia Developers Coalition	Lyon & Osceola Extension	BCOM
	Cherokee		NW Ia Developers Coalition	Lyon & Osceola Extension	FAC
	Cherokee		NW Ia Developers Coalition	Lyon & Osceola Extension	OCOM
	Cherokee	Cherokee	Cherokee Co.	CTRE/CP Tech	PWD
	Cherokee	Cherokee	L and H Engineers	CTRE/CP Tech	PWD
	Cherokee	Cherokee	Cherokee Area Economic Development Corporation	Industry Relations	BCOM
	Cherokee	Cherokee	Cherokee Area Economic Development Corporation	Industry Relations	BCOM
	Cherokee		24 election officials certified	Extension CED	OCOM
	Cherokee		Cherokee County	Extension CED	OCOM
	Cherokee		Cherokee County Auditors	Extension CED	OCOM
Cherokee County	48				48
	Chickasaw	Fredericksburg	Fredericksburg	Landscape Architecture, IDRO	BCOM
	Chickasaw	New Hampton	New Hampton	Landscape Architecture, IDRO	BCOM
	Chickasaw	New Hampton	TriMark Corporation	IPRT Company Assistance-Materials	TAC
	Chickasaw	New Hampton	Sparboe Foods	Meat Science Extension	PWD
	Chickasaw	Fredericksburg	Fredericksburg	Landscape Architecture, IDRO	BCOM
	Chickasaw	New Hampton	New Hampton	Landscape Architecture, IDRO	BCOM
	Chickasaw	county	Chickasaw County Planning Commission	Chickasaw County Extension	BCOM
	Chickasaw	county	All Saints Hwy committee	Chickasaw County Extension	FAC
	Chickasaw	county	Chickasaw County New Iowans Committee	Chickasaw County Extension	OCOM
	Chickasaw	New Hampton	dairy farms	Robert Tigner	TAC
	Chickasaw	Fredericksburg	Aveka Manufacturing	ISUE-CIRAS	TAC
	Chickasaw	New Hampton	Chickasaw Co.	CTRE/CP Tech	PWD
	Chickasaw	New Hampton	Iowa DOT	CTRE/CP Tech	PWD
Chickasaw County	13				13
	Chickasaw		Chickasaw County Auditors	Extension CED	OCOM
	Chickasaw		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
Chickasaw County	2				2
	Clarke	Osceola	Clark Comm School	McNay Research Farm, ISU	OCOM
	Clarke	Osceola	Clarke County Development Corporation	OIPTT	BCOM
	Clarke	Osceola	Clarke County Development Corporation	College of Engineering	BCOM
	Clarke	Osceola	Nex-Gen Biofuels, Inc.	Extension CED	BAC
	Clarke		Multi-State Regional Development	Extension CED	FAC
	Clarke		Renew Rural Iowa	Extension CED	FAC
	Clarke		Rural Development Resource Center	Extension CED	FAC
	Clarke		Rural Development Resource Center: Grow Iowa Fund; Wallace Fund; Southwest Iowa Coalition	Extension CED	BAC/ TCOM/ FAC/ BCOM
	Clarke	Osceola	Clarke County - VITA site	Families	OCOM
	Clarke	Osceola	Southern Hills Winery	Midwest Grape & Wine Industry Institute	TAC, BAC
	Clarke	Osceola	Clarke County - VITA site	ISU Extension	OCOM
	Clarke	Murray	Aschan Trucking	ISUE-CIRAS	BAC
	Clarke	Osceola	Clarke County Development Corporation	Industry Relations	BCOM
	Clarke	Osceola	Remington Hybrid Seed Co.	Industry Relations	TAC
	Clarke		Zoning Official	CRP	TCOM

	Clarke		Great Western Bank - Osceola	Extension CED	FAC/ BCOM
	Clarke		Rural Development Summit	Extension CED	FAC
	Clarke		Southwest Iowa Coalition	Extension CED	FAC
	Clarke		Zoning Official	Extension CED, CRP Extension	TCOM
Clarke County	19				19
	Clay	Spencer	Iowa Aerospace Systems	OIPTT	FAC
	Clay	Spencer	Iowa Aerospace Systems, Inc.	College of Engineering	BAC
	Clay	Spencer	Iowa Lakes Corridor Region	College of Engineering	BCOM
	Clay	Spencer	Northwest Iowa Regional Planning Commission	College of Engineering	BCOM
	Clay	Spencer	CAI Students	Crop Advisor Institute	PWD
	Clay	Spencer	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Clay	Peterson	Peterson	Extension CED	OCOM
	Clay	Spencer	NPMA-Council Bluffs	Extension CED	PWD
	Clay	Spencer	Spencer	Extension CED	TCOM
	Clay	Webb	Webb	Extension CED	OCOM
	Clay		48 election officials certified	Extension CED	OCOM
	Clay		Livestock producers and regulators	Extension CED	TCOM
	Clay	Spencer	Spencer Ag Center	David Stender	BAC, TAC
	Clay	Spencer	City of Spencer	ISU Extension	PWD
	Clay	Spencer	Eaton Corporation	ISU Extension	PWD
	Clay	Spencer	KICD/CD 107.7 Radio Station	ISU Extension	PWD
	Clay	Spencer	Spencer Hospital	ISU Extension	PWD
	Clay	Spencer	Spencer YMCA	ISU Extension	PWD
	Clay		Event in Clay County	ISUE-CIRAS	PWD
	Clay	Spencer	Tecton Industries Inc	ISUE-CIRAS	TAC
	Clay		48 election officials certified	CED	OCOM
	Clay	Spencer	Spencer YMCA	Family Life Staff	PWD
	Clay	Spencer	Clay Co.	CTRE/CP Tech	PWD
	Clay	Spencer	Eaton Corporation	College of Business	BAC
	Clay		Clay County Auditors	Extension CED	OCOM
	Clay		Clay County	Extension CED	TCOM
	Clay		County Local Housing Trust Fund	Extension CED	TCOM
Clay Countyy	27				27
	Clayton	Guttenberg	Guttenberg	Landscape Architecture, IDRO	BCOM
	Clayton	Monona	Monona	Landscape Architecture, IDRO	BCOM
	Clayton	Strawberry Point	Strawberry Point	Landscape Architecture, IDRO	BCOM
	Clayton	Upper Explorerland	Building & Zoning	CRP	TCOM
	Clayton	Volga	Volga	Landscape Architecture, IDRO	BCOM
	Clayton	Elkader	E-Ject Systems Engineering	IPRT Company Assistance-Materials	TAC
	Clayton	Elkader	Reference LLC	IPRT Company Assistance-Technology Commercialization	TT
	Clayton	Monona	Distance Education Students = 10	Brenton Ctr for Ag Instruction	PWD
	Clayton	Edgewood	Edgewood Locker	Meat Science Extension	PWD
	Clayton	Guttenberg	Guttenberg	Landscape Architecture, IDRO	BCOM
	Clayton	Guttenberg	NE Iowa Community Development Conference	Extension CED	FAC
	Clayton	Guttenberg	Nex-Gen Biofuels, Inc.	Extension CED	BAC
	Clayton	Marquette	Nex-Gen Biofuels, Inc.	Extension CED	BAC
	Clayton	Monona	Monona	Landscape Architecture, IDRO	BCOM
	Clayton	Monona	NE Iowa Community Development Conference	Extension CED	FAC
	Clayton	Postville	NE Iowa Community Development Conference	Extension CED	FAC
	Clayton	Postville	Nex-Gen Biofuels, Inc.	Extension CED	BAC
	Clayton	Strawberry Point	NE Iowa Community Development Conference	Extension CED	FAC
	Clayton	Strawberry Point	Strawberry Point	Landscape Architecture, IDRO	BCOM
	Clayton	Upper Explorerland	Building & Zoning	Extension CED, CRP Extension	TCOM
	Clayton	Volga	Volga	Landscape Architecture, IDRO	BCOM
	Clayton		NE Iowa Food & Farm Coalition	CD-DIAL - Sociology Extension	BAC
	Clayton		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
	Clayton		Northeast Iowa Food & Farm Coalition	Clayton County Extension	BCOM
	Clayton		Northeast Iowa Food & Fitness Initiative	Clayton County Extension	BCOM
	Clayton	Garnavillo	dairy farms	Robert Tigner	TAC
	Clayton		Event in Clayton County	ISUE-CIRAS	FAC
	Clayton	Elkader	Reference, LLC	ISUE-CIRAS	BAC
	Clayton	Monona	M's Machine and Manufacturing Co	ISUE-CIRAS	TAC
	Clayton	Monona	Monona Wire Corp	ISUE-CIRAS	TAC
	Clayton	Monona	M's Machine and Manufacturing Co	ISUE-CIRAS	TAC
	Clayton	Elkader	Clayton Co.	CTRE/CP Tech	PWD
	Clayton	Elkader	Engineers	CTRE/CP Tech	PWD
	Clayton	Monona	TechSpace	Industry Relations	TAC
	Clayton	Elkader	Reference LLC	Kinesiology/IPRT	TAC

	Clayton	Edgewood	Edgewood	Landscape Architecture, IDRO	BCOM
	Clayton	Buena Vista	Board/Supervisor	CRP	TCOM
	Clayton	Buena Vista	Board/Supervisor	Extension CED, CRP Extension	TCOM
	Clayton	Clayton	Administrator	CRP	TCOM
	Clayton	Elkader	Chairman, Planning & Zoning Committee	CRP	TCOM
	Clayton	Clayton	Administrator	Extension CED, CRP Extension	TCOM
	Clayton	Elkader	Clayton County Secondary Roads	Extension CED	PWD
	Clayton	Elkader	NE Iowa Community Development Conference	Extension CED	FAC
	Clayton		NE Iowa Community Development Conference	Extension CED	FAC
Clayton Countyy	44				44
	Clinton	Clinton	StarrMatica	OIPTT	BAC
	Clinton	Lost Nation	Lost Nation	Landscape Architecture, IDRO	BCOM
	Clinton	Dewitt	Magnaflux	Center for Nondestructive Evaluation, IPRT	TAC
	Clinton	Lost Nation	Lost Nation	Landscape Architecture, IDRO	BCOM
	Clinton		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
	Clinton	Clinton	City of Clinton - Trend Meeting	County Extension	FAC
	Clinton	DeWitt	City of DeWitt - Trend Meeting	County Extension	FAC
	Clinton	Clinton	Horticulture in the Heartland	County Extension	FAC
	Clinton	Clinton	Applebee's	ISU Extension	PWD
	Clinton	Clinton	Aeroflow Coating	ISUE-CIRAS	BAC
	Clinton	De Witt	JRB Co Inc	ISUE-CIRAS	TAC
	Clinton	Clinton	Air Control Inc	ISUE-CIRAS	TAC
	Clinton	Clinton	Bemis Clysar Inc	ISUE-CIRAS	TAC
	Clinton	Clinton	City of Clinton	CTRE/CP Tech	PWD
	Clinton	Clinton	Archer Daniels Midland Company	Industry Relations	TAC
	Clinton	Clinton	Zoning Commission	CRP	TCOM
	Clinton	DeWitt	Planning & Zoning	CRP	TCOM
	Clinton	Clinton	Zoning Commission	Extension CED, CRP Extension	TCOM
	Clinton	DeWitt	DeWitt	Extension CED	TCOM
	Clinton	DeWitt	Planning & Zoning	Extension CED, CRP Extension	TCOM
	Clinton	DeWitt	Farm Credit Services	CEED	BAC
	Clinton	Clinton	Mercy Medical Center	Extension CED	PWD
	Clinton	Clinton	See Life Clearly Foundation	Extension CED	PWD
	Clinton		Clinton County Auditors	Extension CED	OCOM
	Clinton		Extension Council	Extension CED	FAC
Clinton Countyy	25				25
	Crawford	Denison	Agren	College of Business	FAC
	Crawford	Denison	Denison Foods	Meat Science Extension	PWD
	Crawford	Denison	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Crawford	Vail	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Crawford	Denison	Farmland Foods	Meat Science Extension	PWD
	Crawford	Denison	City of Denison/Denison Housing Authority	Extension CED	BCOM
	Crawford	Denison	Denison	Extension CED	TCOM
	Crawford	Denison	Grow Iowa	Extension CED	BCOM
	Crawford		Crawford County	Extension CED	PWD
	Crawford		Crawford County	Extension CED	PWD
	Crawford	Denison	Tyson Fresh Meats	Darrell Busby SW IA Beef Speciailist	BAC
	Crawford	Denison	Amazing Energy	Darrell Busby SW IA Beef Speciailist	BAC
	Crawford	Westside	Hugg Manufacturing Inc.	ISUE-CIRAS	TAC
	Crawford	Denison	Bohlmann Inc	ISUE-CIRAS	BAC
	Crawford	Denison	City of Denison/Denison Housing Authority	Communities	BCOM
	Crawford	Denison	Crawford Co.	CTRE/CP Tech	PWD
	Crawford	Charter Oak	Charter Oak/Ute Comm School	Western Research Farm, ISU	OCOM
	Crawford		Rural Development Resource Center	Extension CED	FAC
	Crawford		Rural Development Resource Center: Grow Iowa Fund; Wallace Fund; Southwest Iowa Coalition	Extension CED	BAC/ TCOM/ FAC/ BCOM
	Crawford		Rural Development Summit	Extension CED	FAC
Crawford County	20				20
	Dallas	Perry	Percival Scientific	College of Business	BAC
	Dallas	Waukee	Board of Adjustment Member	CRP	TCOM
	Dallas	Waukee	Hubbell Realty	College of Engineering	PWD
	Dallas	Perry	Wiese Corp.	IPRT Company Assistance-Materials	TAC
	Dallas	Perry	Distance Education Students = 3	Brenton Ctr for Ag Instruction	PWD
	Dallas	Van Meter	Distance Education Students = 4	Brenton Ctr for Ag Instruction	PWD
	Dallas	Adel	Distance Education Students = 5	Brenton Ctr for Ag Instruction	PWD
	Dallas	Dallas Center	Distance Education Students = 7	Brenton Ctr for Ag Instruction	PWD

	Dallas	Dallas Center	Hy-Line International	Animal Science-Dekkers	TAC, PWD
	Dallas	Dallas Center	Hy-Line International	Animal Science-Lamont	TAC
	Dallas	Perry	Mark Seed	Organic Ag Program (K. Delate; Agronomy & Horticulture)	TAC
	Dallas	Waukee	Prairieview H.S.	College of Engineering / ABE (PLTW)	OCOM
	Dallas	Waukee	Waukee High School	College of Engineering / ABE (PLTW)	OCOM
	Dallas	Perry	Mark Seed Co.	ISURF	TT
	Dallas	Adel	Main Street/Adel Partners Chamber	Extension CED	FAC
	Dallas	Adel	Dallas County Road Department Engineer's Office	Extension CED	PWD
	Dallas	DeSoto	City of DeSoto	Extension CED	TCOM
	Dallas	Granger	GRANGER	Extension CED	TCOM
	Dallas	Granger	Granger Economic Development Assoc.	Extension CED	FAC
	Dallas	Granger	Granger	Extension CED	FAC
	Dallas	Van Meter	Peace Corps	Extension CED	PWD
	Dallas	Waukee	Board of Adjustment Member	Extension CED, CRP Extension	TCOM
	Dallas	Woodward	Woodward	Extension CED, Landscape Architecture Extension	OCOM. PWD
	Dallas	Perry	Perry	ISU Extension	OCOM
	Dallas	Adel	Hanny's of Adel	ISU Extension	PWD
	Dallas	Waukee	Legacy Point	ISU Extension	PWD
	Dallas	Woodward	Woodward Resource Center	ISU Extension	PWD
	Dallas	Adel	Iowa Spring Manufacturing Inc	ISUE-CIRAS	TAC
	Dallas	Perry	Wiese Industries Inc	ISUE-CIRAS	TAC
	Dallas	Perry	Wiese Industries Inc	ISUE-CIRAS	TAC
	Dallas	Waukee	ecfirst.com	ISUE-CIRAS	BAC
	Dallas	Adel	Iowa Spring Manufacturing Inc	ISUE-CIRAS	TAC
	Dallas	Dallas Center	Dallas Co.	CTRE/CP Tech	PWD
	Dallas	Waukee	City of Waukee	CTRE/CP Tech	PWD
	Dallas	Waukee	Dallas Co. Engineer	CTRE/CP Tech	PWD
	Dallas	Perry	Iowa Foot Clinic	Kinesiology/IPRT	TAC
	Dallas	Adel	Wells Fargo	College of Engineering	PWD
	Dallas		Dallas County	Extension CED	TCOM
	Dallas		Dallas County Auditors	Extension CED	OCOM
	Dallas		Rural Development Resource Center	Extension CED	FAC
	Dallas		Rural Development Summit	Extension CED	FAC
	Dallas	Granger	City of Granger	Communities	BCOM
	Dallas		Dallas County	County/Ag	BAC
	Dallas	Adel	Bioenegy Downlink-ISU	AG	FAC
Dallas County	44				44
	Davis	Bloomfield	Distance Education Students = 5	Brenton Ctr for Ag Instruction	PWD
	Davis	Bloomfield	Hastings Meat Processing	Meat Science Extension	PWD
	Davis	Bloomfield	Midwest Forestry and Bioproducts	NREM	TAC
	Davis		ADLM Empowerment Board	CD-DIAL - Sociology Extension	OCOM
	Davis	Bloomfield	Industry Specialists, Inc.	ISUE-CIRAS	BAC
	Davis	Bloomfield	City of Bloomfield	CTRE/CP Tech	PWD
	Davis		Davis County Auditors	Extension CED	OCOM
	Davis		Davis County tourism	Extension CED	FAC
Davis County	8				8
	Decatur	Lamoni	Lamoni	Landscape Architecture, IDRO	BCOM/ OCOM
	Decatur	Lamoni	Industrial Hardfacing	IPRT Company Assistance-Technology Commercialization	TT
	Decatur	Van Wert	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Decatur	Lamoni	Lamoni	Landscape Architecture, IDRO	BCOM/ OCOM
	Decatur	Lamoni	Lead 2 Day, Lamoni	Johnson County Extension	PWD
	Decatur		Decatur Co. Development Corp.-entrepreneurial committee	Decatur County ISU Extension	BAC
	Decatur		Co. Development, A-Z, Saxton,Inc.,Boyd Const.	Procurement Outreach through CIRAS	BAC
	Decatur	Lamoni	Beautification Committee-Living Roadways/visioning	Decatur County ISU Extension/	FAC
	Decatur	Leon	Little River Watershed Source Protection Plan (in cooperation with watershed sponsors, County Conservation, NRCS, DNR, Rural Water, etc.)	Decatur County ISU Extension	FAC
	Decatur		Co. Development, A-Z, Saxton,Inc.,Boyd Const.	Procurement Outreach through CIRAS	FAC
	Decatur	Leon	Little River Watershed Source Protection Plan	Decatur County ISU Extension	TCOM
	Decatur	Lamoni	A-Z Manufacturing and Sales Co	ISUE-CIRAS	BAC
	Decatur	Davis City	Decatur Co.	CTRE/CP Tech	PWD
	Decatur	Leon	Leon - Decatur Co. Econ Develop Corp	Industry Relations	BCOM
	Decatur		Decatur County Auditors	Extension CED	OCOM
	Decatur		Great Western Bank - Leon	Extension CED	FAC/ BCOM

	Decatur		Multi-State Regional Development	Extension CED	FAC
	Decatur		Renew Rural Iowa	Extension CED	FAC
	Decatur		Rural Development Resource Center	Extension CED	FAC
	Decatur		Rural Development Resource Center: Grow Iowa Fund; Wallace Fund; Southwest Iowa Coalition	Extension CED	BAC/ TCOM/ FAC/ BCOM
	Decatur		Rural Development Summit	Extension CED	FAC
	Decatur		Southwest Iowa Coalition	Extension CED	FAC
Decatur County	22				22
	Delaware	Colesburg	Colesburg	Landscape Architecture, IDRO	BCOM
	Delaware	Hopkinton	Hopkinton	Landscape Architecture, IDRO	BCOM
	Delaware	Manchester	Area teachers	Families Extension	PWD
	Delaware	Edgewood	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Delaware	Hopkinton	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Delaware	Ryan	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Delaware	Colesburg	Colesburg	Landscape Architecture, IDRO	BCOM
	Delaware	Dyersville	Nex-Gen Biofuels, Inc.	Extension CED	BAC
	Delaware	Hopkinton	Hopkinton	Landscape Architecture, IDRO	BCOM
	Delaware	Manchester	NE Iowa Community Development Conference	Extension CED	FAC
	Delaware	Manchester	Manchester; Delaware County; Dyersville	Delaware County CEED	BCOM
	Delaware	Manchester	Manchester Enterprise Zone Commission	Delaware County CEED	FAC
	Delaware	Edgewood	Edgewood Economic Development	ISU Extension	FAC
	Delaware	Earlville	Distinctive Wood Works Inc	ISUE-CIRAS	BAC
	Delaware	Delhi	Bradco McMillen and The Major	ISUE-CIRAS	TAC
	Delaware	Manchester	Gibbs Engineering	CTRE/CP Tech	PWD
	Delaware	Manchester	TeKippe Engineering	CTRE/CP Tech	PWD
	Delaware	Manchester	Area teachers	ISU Extension	PWD
	Delaware	Edgewood	Edgewood	Landscape Architecture, IDRO	BCOM
	Delaware	Manchester	crop farms	Robert Tigner	BAC
	Delaware	Edgewood	Healthy Edge Meats (startup)	Delaware County CEED	BAC - startup
	Delaware		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
Delaware County	22				22
	Des Moines	Burlington	Southeastern Community College	College of Engineering	BCOM
	Des Moines	Burlington	Great River Region	College of Engineering	BCOM
	Des Moines	Burlington	General Electric	College of Engineering	PWD
	Des Moines	Burlington	Winegard	College of Engineering	PWD
	Des Moines	Burlington	Cetek	College of Engineering	PWD
	Des Moines	Burlington	Case New Holland	IPRT Company Assistance-NDE	TAC
	Des Moines	Burlington	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Des Moines	Mediapolis	Distance Education Students = 3	Brenton Ctr for Ag Instruction	PWD
	Des Moines	Middletown	Distance Education Students = 3	Brenton Ctr for Ag Instruction	PWD
	Des Moines	Burlington	Southeast iowa Regional Coalition for Lifestyle Enhancement	Families Extension	PWD
	Des Moines	Burlington	Burlington	Extension CED	TCOM
	Des Moines		Des Moines County Auditors	Extension CED	OCOM
	Des Moines	Burlington	Des Moines County Inventors and Entrepreneurs Club - business start-up training and networking	Des Moines County Extension	BAC
	Des Moines	Burlington	Iowa Workforce Development - Computer skills training	Des Moines County Extension	PWD
	Des Moines	Burlington	Southeast Iowa Community Action	ISU Extension	PWD
	Des Moines	Burlington	Flint Cliffs Manufacturing	ISUE-CIRAS	BAC
	Des Moines	West Burlington	T and T Technologies, Inc.	ISUE-CIRAS	BAC
	Des Moines	Burlington	R L Douglas Contracting	ISUE-CIRAS	BAC
	Des Moines	Burlington	Flint Cliffs Manufacturing	ISUE-CIRAS	BAC
	Des Moines	Burlington	Winegard Co	ISUE-CIRAS	TAC
	Des Moines		Event in Des Moines County	ISUE-CIRAS	TAC
	Des Moines	Burlington	Vista Bakery Inc	ISUE-CIRAS	TAC
	Des Moines	West Burlington	Borghi USA Inc.	ISUE-CIRAS	TAC
	Des Moines	Burlington	City of Burlington	CTRE/CP Tech	PWD
	Des Moines	West Burlington	Ideal Ready Mix	CTRE/CP Tech	PWD
	Des Moines	Burlington	Burlington/West Burlington Chamber of Commerce and Grow Greater Burlington	Industry Relations	BCOM
	Des Moines	Burlington	Southeast iowa Regional Coalition for Lifestyle Enhar	ISU Extension	PWD
	Des Moines	Mediapolis	Deputy City Clerk	Extension CED, CRP Extension	TCOM
	Des Moines	Mediapolis	Mediapolis High School	Extension Director	OCOM
	Des Moines	West Burlington	Pies on Parade	Meat Science Extension	PWD
	Des Moines		County Local Housing Trust Fund	Extension CED	TCOM
	Des Moines	West Burlington	Mississippi Valley Human Resource Committee	ISU Extension	PWD
	Des Moines	Burlington	Alcohol and Drug Dependency Center	ISU Extension	PWD
	Des Moines	Burlington	Alcohol and Drug Dependency Center	ISU Extension	PWD
	Des Moines	Burlington	Alcohol and Drug Dependency Center	ISU Extension	PWD
Des Moines County	35				35

	DesMoines	Mediapolis	Deputy City Clerk	CRP	TCOM
DesMoines County	1				1
	Dickinson	Wahpeton	Planning & Zoning Commission	CRP	TCOM
	Dickinson	Wahpeton	Planning & Zoning Commission	Extension CED, CRP Extension	TCOM
	Dickinson	Spirit Lake	AreoPowder Coating	College of Business	FAC
	Dickinson	Arnolds Park	Arnolds Park	Landscape Architecture, IDRO	BCOM; TCOM
	Dickinson	Lake Park	Hardin Coffee Shop	IDRO	TCOM
	Dickinson	Milford	MIDAS Council of Government	CRP	TCOM
	Dickinson	West Okoboji	West Okoboji	Landscape Architecture, IDRO	BCOM
	Dickinson	Spirit Lake	Okoboji Entreprenerial Institute	College of Engineering	FAC
	Dickinson	Arnolds Park	Arnolds Park	Landscape Architecture, IDRO	BCOM; TCOM
	Dickinson	Lake Park	Hardin Coffee Shop	IDRO	TCOM
	Dickinson	Milford	MIDAS Council of Government	Extension CED, CRP Extension	TCOM
	Dickinson	West Okoboji	West Okoboji	Landscape Architecture, IDRO	BCOM
	Dickinson		Livestock producers and regulators	Extension CED	TCOM
	Dickinson	Milford	Stylecraft	ISU Extension	PWD
	Dickinson	Spirit Lake	Brown Medical Industry	ISU Extension	PWD
	Dickinson	Spirit Lake	Polaris	ISU Extension	PWD
	Dickinson	Spirit Lake	Pure Fishing/Outdoor Technology Group	ISU Extension	PWD
	Dickinson	Spirit Lake	Dickinson Co. Employees	ISU Extension	PWD
	Dickinson	Spirit Lake	Joyful Journeys Daycare	ISU Extension	PWD
	Dickinson	Milford	Kidsville Day Care Inc	ISU Extension	PWD
	Dickinson	Spirit Lake	Lakes Regional Healthcare	ISU Extension	PWD
	Dickinson	Lake Park	Northern Iowa Die Casting Inc	ISUE-CIRAS	TAC
	Dickinson	Spirit Lake	Joyful Journeys Daycare	Family Life Staff	PWD
	Dickinson	Milford	Kidsville Day Care Inc	Family Life Staff	PWD
	Dickinson	Okoboji	Dickinson Co.	CTRE/CP Tech	PWD
	Dickinson	Okoboji	Dickinson Co.	CTRE/CP Tech	PWD
	Dickinson		Dickinson County	Extension CED	TCOM/ PWD
Dickinson County	27				27
	Dubuque	Dubuque	Upper Mississippi Grape Growers Assn	Midwest Grape & Wine Industry Institute	FAC
	Dubuque	Dyersville	Distinctive Woodworks	College of Business	BAC
	Dubuque	Asbury	Senior Planner	CRP	TCOM
	Dubuque	Asbury	Asbury	Landscape Architecture, IDRO	BCOM
	Dubuque	Balltown	Balltown	Landscape Architecture, IDRO	BCOM
	Dubuque	Cascade	Zoning office	CRP	TCOM
	Dubuque	Dubuque	Administrator	CRP	TCOM
	Dubuque	Dubuque	Bi-State Regional Commission	CRP	TCOM
	Dubuque	Dubuque	Planning & Zoning Comm. Member	CRP	TCOM
	Dubuque	Dubuque	Zoning Administrator	CRP	TCOM
	Dubuque	Jackson	Board of Adjustment	CRP	TCOM
	Dubuque	Jackson	Zoning Commissioner	CRP	TCOM
	Dubuque	Johnson	Planning & Zoning Comm. Member	CRP	TCOM
	Dubuque	Dubuque	John Deere	College of Engineering	PWD
	Dubuque	Dubuque	Weitz Sign	IPRT Company Assistance-NDE	TAC
	Dubuque	Farley	CAI Students	Crop Advisor Institute	PWD
	Dubuque	Dubuque	Distance Education Students = 3	Brenton Ctr for Ag Instruction	PWD
	Dubuque	Dubuque	Hauns Specialty Meats	Meat Science Extension	PWD
	Dubuque	Dubuque	Hy-Vee	Meat Science Extension	PWD
	Dubuque	Asbury	Asbury	Landscape Architecture, IDRO	BCOM
	Dubuque	Asbury	Senior Planner	Extension CED, CRP Extension	TCOM
	Dubuque	Balltown	Balltown	Landscape Architecture, IDRO	BCOM
	Dubuque	Cascade	Zoning office	Extension CED, CRP Extension	TCOM
	Dubuque	Dubuque	Administrator	Extension CED, CRP Extension	TCOM
	Dubuque	Dubuque	Bi-State Regional Commission	Extension CED, CRP Extension	TCOM
	Dubuque	Dubuque	Dubuque	Extension CED	TCOM
	Dubuque	Dubuque	East Central Intergovernmental Association	Extension CED	PWD
	Dubuque	Dubuque	NE Iowa Community Development Conference	Extension CED	FAC
	Dubuque	Dubuque	Planning & Zoning Comm. Member	Extension CED, CRP Extension	TCOM
	Dubuque	Dubuque	Zoning Administrator	Extension CED, CRP Extension	TCOM
	Dubuque	Elkader	Chairman, Planning & Zoning Committee	Extension CED, CRP Extension	TCOM
	Dubuque	Jackson	Board of Adjustment	Extension CED, CRP Extension	TCOM

	Dubuque	Jackson	Zoning Commissioner	Extension CED, CRP Extension	TCOM
	Dubuque		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
	Dubuque	Peosta	crop farms	Robert Tigner	BAC
	Dubuque	Dubuque	Operation New View	ISU Extension	OCOM
	Dubuque		Event in Dubuque County	ISUE-CIRAS	FAC
	Dubuque		Event in Dubuque County	ISUE-CIRAS	FAC
	Dubuque	Dubuque	Bradley Iron Works Inc	ISUE-CIRAS	TAC
	Dubuque	Peosta	Premier Tooling Inc	ISUE-CIRAS	TAC
	Dubuque	Peosta	Captive Plastics Inc	ISUE-CIRAS	TAC
	Dubuque	New Vienna	Taylor Construction	ISUE-CIRAS	BAC
	Dubuque	Dubuque	Country Charm Carpet Cleaning and Upholstery	ISUE-CIRAS	BAC
	Dubuque	Dubuque	Frazier Construction Administration, Inc.	ISUE-CIRAS	BAC
	Dubuque	Dyersville	Haasco Ltd.	ISUE-CIRAS	BAC
	Dubuque	Dyersville	Custom Fabrication Machine and Design, Inc.	ISUE-CIRAS	BAC
	Dubuque	Farley	EIMCO Inc	ISUE-CIRAS	BAC
	Dubuque	Dubuque	Higley Industries Inc	ISUE-CIRAS	BAC
	Dubuque	Dubuque	Dubuque Sash and Door Mfg	ISUE-CIRAS	BAC
	Dubuque		Event in Dubuque County	ISUE-CIRAS	TAC
	Dubuque	Dubuque	Morrison Brothers Co (24th and Elm)	ISUE-CIRAS	TAC
	Dubuque	Dubuque	Morrison Brothers Co (24th and Elm)	ISUE-CIRAS	TAC
	Dubuque	Peosta	Trappist Caskets	ISUE-CIRAS	TAC
	Dubuque	Dubuque	Dubuque Sash and Door Mfg	ISUE-CIRAS	TAC
	Dubuque	Dubuque	John Deere - Dubuque Works	ISUE-CIRAS	TAC
	Dubuque	Dubuque	Barnstead International	ISUE-CIRAS	TAC
	Dubuque	Farley	EIMCO Inc	ISUE-CIRAS	TAC
	Dubuque	Dubuque	Dubuque Screw Products Inc	ISUE-CIRAS	TAC
	Dubuque	Dyersville	Lumber Specialties Ltd	ISUE-CIRAS	TAC
	Dubuque		Event in Dubuque County	ISUE-CIRAS	TAC
	Dubuque		Event in Dubuque County	ISUE-CIRAS	TAC
	Dubuque	Dubuque	City of Dubuque	CTRE/CP Tech	PWD
	Dubuque	Dubuque	IIW Engineers & Surveyors PC	CTRE/CP Tech	PWD
	Dubuque	Dyersville	Bard Concrete	CTRE/CP Tech	PWD
	Dubuque	Cascade	Cascade	Landscape Architecture, IDRO	BCOM
	Dubuque		Dubuque County Auditors	Extension CED	OCOM
Dubuque County	66				66
	Emmet	Esterville	Dakota Pack	Meat Science Extension	PWD
	Emmet		Emmet County	Extension CED	PWD
	Emmet	Estherville	Estherville-Lincoln Centrat	ISU Extension	PWD
	Emmet	Estherville	Satern Custom Machining Inc.	ISUE-CIRAS	FAC
	Emmet	Estherville	Satern Custom Machining Inc.	ISUE-CIRAS	BAC
	Emmet	Estherville	Estherville-Lincoln Centrat	Family Life Staff	PWD
	Emmet	Estherville	Jacobson-Westergard & Associates, Inc.	CTRE/CP Tech	PWD
	Emmet		Emmet County Auditors	Extension CED	OCOM
Emmet County	8				8
	Emmett	Armstrong	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Emmett	Wallingford	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
Emmett County	2				2
	Fayette	Fayette	Zoning	CRP	TCOM
	Fayette	Oelwein	Planning Commission	CRP	TCOM
	Fayette	Upper Explorerland	Building & Zoning	CRP	TCOM
	Fayette	West Union	West Union	Landscape Architecture, IDRO	BCOM
	Fayette	West Union	Fayette County Economic Development	College of Engineering	BCOM
	Fayette	Oelwein	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Fayette	Randalia	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Fayette	Oelwein	Oelwein Comm. Schools	College of Engineering / ABE (PLTW)	OCOM
	Fayette	Arlington	PSEOA Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Fayette	Wadena	Tony's Wadena Locker	Meat Science Extension	PWD
	Fayette	Fayette	Pattison Brothers	ISURF	TT
	Fayette	Fayette	Pattison Brothers	ISURF	TT
	Fayette	Fayette	Pattison Brothers	ISURF	TT
	Fayette	Fayette	Pattison Brothers	ISURF	TT
	Fayette	Fayette	Pattison Brothers	ISURF	TT
	Fayette	Fayette	Pattison Brothers	ISURF	TT
	Fayette	Fayette	NE Iowa Community Development Conference	Extension CED	FAC
	Fayette	Fayette	Zoning	Extension CED, CRP Extension	TCOM
	Fayette	Oelwein	NE Iowa Community Development Conference	Extension CED	FAC
	Fayette	Oelwein	Planning Commission	Extension CED, CRP Extension	TCOM
	Fayette	Upper Explorerland	Building & Zoning	Extension CED, CRP Extension	TCOM
	Fayette	West Union	NE Iowa Community Development Conference	Extension CED	FAC
	Fayette	West Union	West Union	Landscape Architecture, IDRO	BCOM
	Fayette		County Local Housing Trust Fund	Extension CED	TCOM

	Fayette		NE Iowa Food & Farm Coalition	CD-DIAL - Sociology Extension	BAC
	Fayette		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
	Fayette		Northeast Iowa Food & Farm Coalition	Fayette County Extension	BCOM
	Fayette		Northeast Iowa Food & Fitness Initiative	Fayette County Extension	BCOM
	Fayette	West Union	Stoney Brook Village	ISU Extension	PWD
	Fayette	West Union	Imperial Roof Systems Co.	ISUE-CIRAS	BAC
	Fayette	Clermont	Fayette Co.	CTRE/CP Tech	PWD
	Fayette		Fayette County	Extension CED	TCOM
Fayette County	32				32
	Floyd	Charles City	Charles City	Landscape Architecture, IDRO	BCOM
	Floyd	Floyd	Floyd	Landscape Architecture, IDRO	BCOM
	Floyd	Floyd	Building Official	CRP	TCOM
	Floyd	Marble Rock	Marble Rock	Landscape Architecture, IDRO	BCOM
	Floyd	Charles City	Farm Bureau	College of Engineering	BCOM
	Floyd	Charles City	Diversified Fastening Systems	IPRT Company Assistance-Materials	TAC
	Floyd	Charles City	Cambrex	Agricultural & Biosystem Engineering - STIR	TAC
	Floyd	Rudd	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Floyd	Charles City	Distance Education Students = 3	Brenton Ctr for Ag Instruction	PWD
	Floyd	Floyd	Distance Education Students = 4	Brenton Ctr for Ag Instruction	PWD
	Floyd	Charles city	Floyd County Soil/Water Conservation District	Northeast Research Farm, ISU	FAC
	Floyd	Charles City	Charles City	Landscape Architecture, IDRO	BCOM
	Floyd	Charles City	NE Iowa Community Development Conference	Extension CED	FAC
	Floyd	Floyd	Floyd	Landscape Architecture, IDRO	BCOM
	Floyd	Floyd	Building Official	Extension CED, CRP Extension	TCOM
	Floyd	Marble Rock	Marble Rock	Landscape Architecture, IDRO	BCOM
	Floyd	Nora Springs	NE Iowa Community Development Conference	Extension CED	FAC
	Floyd	Charles City	Filipino Community	ISU Extension	OCOM
	Floyd	Charles City	Diversified Fastening Systems	ISUE-CIRAS	TAC
	Floyd	Charles City	Diversified Fastening Systems	ISUE-CIRAS	TAC
	Floyd	Charles City	Winnebago Industries Inc - Charles City	ISUE-CIRAS	TAC
	Floyd	Charles City	Winnebago Industries Inc - Charles City	ISUE-CIRAS	TAC
	Floyd	Charles City	Winnebago Industries Inc - Charles City	ISUE-CIRAS	TAC
	Floyd	Charles City	Winnebago Industries Inc - Charles City	ISUE-CIRAS	TAC
	Floyd	Charles City	Winnebago Industries Inc - Charles City	ISUE-CIRAS	TAC
	Floyd	Charles City	Allied Construction	CTRE/CP Tech	PWD
	Floyd	Charles City	City of Charles City	CTRE/CP Tech	PWD
	Floyd	Charles City	Iowa DOT	CTRE/CP Tech	PWD
	Floyd		Floyd County Auditors	Extension CED	OCOM
	Floyd		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
Floyd County	30				30
	Franklin	Hampton	unknown	CRP	TCOM
	Franklin	Hampton	Hampton Hydraulics	IPRT Company Assistance-Materials	TAC
	Franklin	Hampton	Seabee Corporation	IPRT Company Assistance-NDE	TAC
	Franklin	Hampton	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Franklin	Alexander	Latham Seed Co	ISURF	TT
	Franklin	Alexander	Latham Seed Co	ISURF	TT
	Franklin	Alexander	Latham Seed Co	ISURF	TT
	Franklin	Hampton	Franklin Co Public Health	Extension CED	PWD
	Franklin	Hampton	unknown	Extension CED, CRP Extension	TCOM
	Franklin	Hampton	Hampton-Dumont Community School	4-H Youth Development	OCOM
	Franklin	Hampton	Franklin Wellness Center	4-H Youth Development	OCOM
	Franklin	Latimer	CAL Community School	4-H Youth Development	OCOM
	Franklin	Latimer	Cub Cadet Childhood Center	4-H Youth Development	OCOM
	Franklin	Hampton	Hampton 2017	Franklin County Extension	BCOM
	Franklin	Hampton	Harriman Nielsen Historic Farm	Franklin County Extension	BCOM
	Franklin	Sheffield	Sukup Manufacturing Co	ISUE-CIRAS	TAC
	Franklin	Hampton	Hampton-Hydraulics LLC	ISUE-CIRAS	TAC
	Franklin	Hampton	Franklin Co.	CTRE/CP Tech	PWD
	Franklin		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
Franklin County	19				19
	Fremont	Hamburg	Green Valley Realty	College of Engineering	BAC
	Fremont	Sidney	Fremont Economic Development Council	College of Engineering	BCOM, BAC
	Fremont	Sidney	Sidney Manufcturing	College of Engineering	TAC
	Fremont	Sidney	Sidney Manufacturing	IPRT Company Assistance-Materials	TAC

	Fremont	Sidney	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Fremont		Bateman's Services	Extension CED	FAC/ BCOM
	Fremont		Rural Development Summit	Extension CED	FAC
	Fremont		Southwest Iowa Coalition	Extension CED	FAC
	Fremont	Shenandoah	Great Plains Renewable Energy	Darrell Busby SW IA Beef Speciailist	BAC
	Fremont	Sidney	Western IA Grape Growers Assn	Midwest Grape & Wine Industry Institute	FAC
	Fremont	all communities	Volunteer Income Tax Assistance	ISU Extension	OCOM
	Fremont		Emerald Hills Dairy Consortium	Extension CED	BAC
	Fremont		Fremont County Economic Development Corp.	Extension CED	BCOM
	Fremont		Great Western Bank - Hamburg	Extension CED	FAC/ BCOM
	Fremont		Great Western Bank - Sidney	Extension CED	FAC/ BCOM
	Fremont		Multi-State Regional Development	Extension CED	FAC
	Fremont		Nishna Productions	Extension CED	TAC
	Fremont		Regional Marketing	Extension CED	BCOM
	Fremont		Renew Rural Iowa	Extension CED	FAC
	Fremont		Rural Development Resource Center	Extension CED	FAC
	Fremont		Rural Development Resource Center: Grow Iowa Fund; Wallace Fund; Southwest Iowa Coalition	Extension CED	BAC/ TCOM/ FAC/ BCOM
	Fremont		Southwest Iowa Latino Resource Center	Extension CED	BAC
Fremont County	22				22
	Greene	Jefferson	MicroSoy	OIPTT	BAC
	Greene	Jefferson	City Administrator	CRP	TCOM
	Greene	Jefferson	Greene County Development Corp.	CRP	BCOM
	Greene	Jefferson	American Athletic, Inc.	IPRT Company Assistance-Materials	TAC
	Greene	Jefferson	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Greene	Jefferson	Micro Soy	CCUR	FAC, TAC
	Greene	Jefferson	Microsoy Corp	Meat Science Extension	PWD
	Greene	Jefferson	Micro Soy	CCUR	FAC
	Greene	Jefferson	City Administrator	Extension CED, CRP Extension	TCOM
	Greene	Jefferson	Greene County Development Corp.	Extension CED, CRP Extension	BCOM
	Greene		Rural Development Resource Center: Grow Iowa Fund; Wallace Fund; Southwest Iowa Coalition	Extension CED	BAC/ TCOM/ FAC/ BCOM
	Greene	Jefferson	DRS Manufacturing	Midwest Grape & Wine Industry Institute	BAC
	Greene	Jefferson	Child Care Providers	ISU Extension	PWD
	Greene	Jefferson	American Athletic Inc	ISUE-CIRAS	TAC
	Greene	Scranton	Scranton Manufacturing Co Inc	ISUE-CIRAS	TAC
	Greene	Scranton	Scranton Manufacturing Co Inc	ISUE-CIRAS	TAC
	Greene	Scranton	Scranton Manufacturing Co Inc	ISUE-CIRAS	TAC
	Greene	Scranton	Scranton Manufacturing Co Inc	ISUE-CIRAS	TAC
	Greene	Scranton	Scranton Manufacturing Co Inc	ISUE-CIRAS	TAC
	Greene	Jefferson	Iowa DOT	CTRE/CP Tech	PWD
	Greene	Jefferson	Micro Soy	CCUR	FAC
	Greene	Jefferson	American Athletics, Inc.	Kinesiology	TAC
	Greene	Jefferson	Distillers Grain Beef Meeting	Greene County Extension	FAC
	Greene		Greene County Auditors	Extension CED	OCOM
	Greene		Midwest Partnership Corporation	Extension CED	FAC/ BCOM
	Greene		Rural Development Summit	Extension CED	FAC
	Greene	Jefferson	City of Jefferson	Greene County Extension	TCOM, BAC,BCOM,FAC
	Greene	Jefferson	Greene Bean Project	Greene County Extension	BAC
	Greene	County	Greene County Community Foundation	Greene County Extension	FAC, BCOM,
	Greene	County	Housing Committee of GCDC	Greene County Extension	FAC,TCOM,
	Greene	County	Community Resource Committee	Greene County Extension	OCOM,FAC
	Greene	Jefferson	Jefferson Telephone Company	Greene County Extension	FAC,BAC
	Greene	County	Greene County Development Corporation	Greene County Extension	FAC
	Greene	County	Bio-Energy meetings & Bio-Fuels Study	Greene County Extension	FAC, BCOM
	Greene	County	Food Systems Mapping & Discussions	Greene County Extension	FAC
	Greene	County	Business Connections/Syncrhonist	Greene County Extension	FAC, BCOM
	Greene	Jefferson	Corn-Based Ethanol hosting	Greene County Extension	FAC
	Greene	Jefferson	Marketing Committee	Greene County Extension	OCOM, FAC
	Greene	County	Cattlemen conflict resolution	Greene County Extension	FAC
	Greene	Jefferson	Land Value presentation for Peoples	Greene County Extension	BCOM
	Greene	Jefferson	Park & Recreation Satisfaction analysis	Greene County Extension	BAC,FAC
Greene County	41				41
	Grundy	Beaman	Beaman	Landscape Architecture, IDRO	BCOM
	Grundy	Reinbeck	Tama County Township Trustees & Clerks	IDRO	TCOM
	Grundy	Wellsburg	Wellsburg	Landscape Architecture, IDRO	BCOM
	Grundy	Reinbeck	Distance Education Students = 3	Brenton Ctr for Ag Instruction	PWD
	Grundy	Grundy Center	Grundy National Bank	Economics & CCUR	FAC
	Grundy	Wellsburg	Triple T Country Meats	Meat Science Extension	PWD
	Grundy	Grundy Center	Grundy National Bank	Economics & CCUR	FAC
	Grundy	Beaman	Beaman	Landscape Architecture, IDRO	BCOM

	Grundy	Reinbeck	Tama County Township Trustees & Clerks	Extension CED, IDRO	TCOM
	Grundy	Wellsburg	Wellsburg	Landscape Architecture, IDRO	BCOM
	Grundy		Grundy County Auditors	Extension CED	OCOM
	Grundy		Grundy County	Extension CED	OCOM
	Grundy		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
	Grundy	Grundy Center	Grundy County Development Alliance	Grundy County Extension	FAC
	Grundy	Conrad	Green Products Co	ISUE-CIRAS	TAC
	Grundy	Reinbeck	Peterson Contractors, Inc.	CTRE/CP Tech	PWD
	Grundy	Grundy Center	Grundy National Bank	Economics & CCUR	FAC
Grundy County	17				17
	Guthrie	Stuart	Midwest Partnership Corporation	College of Engineering	BCOM, BAC
	Guthrie	Guthrie Center	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Guthrie	Stuart	Nex-Gen Biofuels, Inc.	Extension CED	BAC
	Guthrie		Bio-Economy Meeting	Extension CED	FAC
	Guthrie		Extension Council	Extension CED	OCOM
	Guthrie		Multi-State Regional Development	Extension CED	FAC
	Guthrie		Panora COOP Telephone and Cablevision	Extension CED	FAC/ BCOM
	Guthrie		Regional Foods Working Group	Extension CED	BAC
	Guthrie		Renew Rural Iowa	Extension CED	FAC
	Guthrie		Rural Development Summit	Extension CED	FAC
	Guthrie	Panora	Lake Lumber Company	ISUE-CIRAS	TAC
	Guthrie	Panora	Lake Panorama	CTRE/CP Tech	PWD
	Guthrie		Guthrie County Auditors	Extension CED	OCOM
	Guthrie		Midwest Partnership Corporation	Extension CED	FAC/ BCOM
	Guthrie		Rural Development Resource Center	Extension CED	FAC
	Guthrie		Rural Development Resource Center: Grow Iowa Fund; Wallace Fund; Southwest Iowa Coalition	Extension CED	BAC/ TCOM/ FAC/ BCOM
	Guthrie		Southwest Iowa Coalition	Extension CED	FAC
Guthrie County	17				17
	Hamilton	Stratford	Board of Adjustment	CRP	TCOM
	Hamilton	Webster City	Electrolux	College of Engineering	PWD
	Hamilton	Webster City	Electrolux Home Products	IPRT Company Assistance-Materials	TAC
	Hamilton	Webster City	Electrolux Home Products	IPRT Company Assistance-NDE	TAC
	Hamilton	Blairsburg	Chamness Technology	IPRT Company Assistance-Technology Commercialization	TT
	Hamilton	Ellsworth	Safe Soy, LLC	IPRT Company Assistance-Technology Commercialization	TT
	Hamilton	Webster City	Area teachers	Families Extension	PWD
	Hamilton	Kamrar	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Hamilton	Stratford	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Hamilton	Webster City	Distance Education Students = 4	Brenton Ctr for Ag Instruction	PWD
	Hamilton	Ellsworth	SafeSoy LLC	CCUR	TAC, TT
	Hamilton	Ellsworth	SafeSoy, LLC	ABE/IGQI	TAC
	Hamilton	Stanhope	Stanhope Locker	Meat Science Extension	PWD
	Hamilton	Jewell	W&G Marketing	Meat Science Extension	PWD
	Hamilton	Webster City	Webster City High School	College of Engineering / ABE (PLTW)	OCOM
	Hamilton	Webster City	Webster City Community School	Agricultural Education and Studies	FAC
	Hamilton	Ellsworth	SafeSoy LLC	CCUR	TAC, TT
	Hamilton	Jewell	Lions Club of Iowa International Youth Camp	Extension CED	PWD
	Hamilton	Stratford	Board of Adjustment	Extension CED, CRP Extension	TCOM
	Hamilton	Webster City	Webster City Area Development	Extension CED	PWD
	Hamilton	Webster City	Hamilton County Conservation	Extension CED	PWD
	Hamilton		10 small businesses	Extension CED	BAC
	Hamilton		Hamilton County Auditors	Extension CED	OCOM
	Hamilton		Hamilton County SEED	CD-DIAL - Sociology Extension	OCOM
	Hamilton		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
	Hamilton	County	Hamilton Co. Community Foundation	Greene County Extension	FAC
	Hamilton	Webster City	Citizens of Webster City	Hamilton County Extension	OCOM
	Hamilton	Webster City	Citizens of Hamilton County	Hamilton County Extension	FAC
	Hamilton	Webster City	Enhance Hamilton County Foundation	Hamilton County Extension	BAC/FAC
	Hamilton	Webster City	Dept of Public Health	ISU Extension	PWD
	Hamilton	Webster City	Hamilton Hospital	ISU Extension	PWD
	Hamilton	Webster City	Lighten Up Iowa - Chamber, Many businesses	ISU Extension	PWD
	Hamilton	Webster City	Mary Ann's Specialty Foods Inc	ISUE-CIRAS	TAC
	Hamilton	Webster City	Arrow Acme Inc	ISUE-CIRAS	TAC
	Hamilton	Webster City	Mary Ann's Specialty Foods Inc	ISUE-CIRAS	PWD
	Hamilton	Webster City	Beam Industries	ISUE-CIRAS	TAC
	Hamilton	Webster City	Arrow Acme Inc	ISUE-CIRAS	TAC

	Hamilton		10 small businesses	CED (Access eCommerce)	BAC
	Hamilton	Webster City	BASF Admixtures, Inc.	CTRE/CP Tech	PWD
	Hamilton	Webster City	Hamilton Co.	CTRE/CP Tech	PWD
	Hamilton	Webster City	Hamilton Co. Secondary Roads	CTRE/CP Tech	PWD
	Hamilton	Webster City	Webster City Area Development	Industry Relations	BCOM
	Hamilton	Webster City	City of Webster City	Industry Relations	BCOM
	Hamilton	Ellsworth	SafeSoy Technologies	Industry Relations	TAC
	Hamilton	Ellsworth	SafeSoy, LLC	ABE/IGQI	TAC
	Hamilton	Ellsworth	SafeSoy LLC	CCUR	TAC, TT
	Hamilton	Webster City	Area teachers	ISU Extension	PWD
	Hamilton	Marion	Linn Mar High School	CEED	OCOM
	Hamilton		Hamilton County	Extension CED	OCOM/ TAC
	Hamilton	Webster City	general public - low income population	ISU Extension	OCOM
Hamilton County	50				50
	Hancock	Garner	Director of Membership Services	CRP	TCOM
	Hancock	Garner	Suntron of Iowa	IPRT Company Assistance-NDE	TAC
	Hancock	Corwith	Corwith Locker	Meat Science Extension	PWD
	Hancock	Corwith	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Hancock	Garner	Doc's Country Locker	Meat Science Extension	PWD
	Hancock	Garner	Director of Membership Services	Extension CED, CRP Extension	TCOM
	Hancock	Garner	NE Iowa Community Development Conference	Extension CED	FAC
	Hancock		Hancock County Auditors	Extension CED	OCOM
	Hancock		NE Iowa Community Development Conference	Extension CED	FAC
	Hancock	Garner	Garner-Hayfield Community School	4-H Youth Development	OCOM
	Hancock	Garner	Garner Asset Project (GAP)	4-H Youth Development	OCOM
	Hancock	Garner	Midwest Dairyand Livestock Inc	Thoreson, Dale Fld Spec ANR	BCOM
	Hancock	Britt	Original Saw Co	ISUE-CIRAS	TAC
	Hancock	Kanawha	Kiefer Built Inc	ISUE-CIRAS	TAC
	Hancock	Garner	Suntron Iowa Corp	ISUE-CIRAS	BAC
	Hancock	Britt	CPW, LLC	ISUE-CIRAS	BAC
	Hancock	Garner	Stellar Industries Inc	ISUE-CIRAS	BAC
	Hancock	Britt	Iowa DOT	CTRE/CP Tech	PWD
	Hancock	Britt	Iowa DOT, Britt RCE Office	CTRE/CP Tech	PWD
	Hancock	Garner	City of Garner	CTRE/CP Tech	PWD
Hancock County	20				20
	Hardin	Eldora	United Suppliers Inc	College of Business	PWD
	Hardin	Ackley	Ackley	Landscape Architecture, IDRO	BCOM
	Hardin	Eldora	Intern	CRP	TCOM
	Hardin	Eldora	Eldora	Landscape Architecture, IDRO	BCOM
	Hardin	Steamboat Rock	Steamboat Rock	Landscape Architecture, IDRO	BCOM
	Hardin	Alden	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Hardin	Iowa Falls	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Hardin	Radcliffe	Distance Education Students = 3	Brenton Ctr for Ag Instruction	PWD
	Hardin	Iowa Falls	Hawkeye Renewables	CCUR	FAC
	Hardin	Iowa Falls	Iowa Select Farms	Animal Science and VDPAM	TAC, FAC
	Hardin	Union	ST Meats	Meat Science Extension	PWD
	Hardin	Ackley	Tripple T Specialty Meats	Meat Science Extension	PWD
	Hardin	Iowa Falls	Hawkeye Renewables	CCUR	FAC
	Hardin	Ackley	Ackley	Landscape Architecture, IDRO	BCOM
	Hardin	Ackley	The Presbyterian Village	Extension CED	PWD
	Hardin	Eldora	Eldora	Landscape Architecture, IDRO	BCOM
	Hardin	Eldora	Intern	Extension CED, CRP Extension	TCOM
	Hardin	Steamboat Rock	Steamboat Rock	Landscape Architecture, IDRO	BCOM
	Hardin		Hardin County Auditors	Extension CED	OCOM
	Hardin		Hardin County	Extension CED	TCOM
	Hardin		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
	Hardin	Eldora	Eldora Area Business Development Group	Hardin County Extension	BCOM
	Hardin	Eldora	Hardin County Agricultural Society	Hardin County Extension	OCOM
	Hardin	Iowa Falls	Iowa Falls Parks & Recreation Board	Hardin County Extension	OCOM
	Hardin	Iowa Falls	Child Care Providers	ISU Extension	PWD
	Hardin	Iowa Falls	Times-Citizen Communications	ISUE-CIRAS	TAC
	Hardin	Eldora	United Suppliers Inc	ISUE-CIRAS	TAC
	Hardin	Ackley	Triple T Specialty Meats, Inc	ISUE-CIRAS	BAC
	Hardin	Hubbard	D and B Agro-Systems Ltd.	ISUE-CIRAS	BAC
	Hardin	Iowa Falls	Hawkeye Renewables	OBP	BAC, FAC, TAC
	Hardin	Iowa Falls	Hawkeye Renewables	OBP	BAC, FAC, TAC
	Hardin	Iowa Falls	Hawkeye Renewables	OBP	BAC, FAC, TAC
	Hardin	Iowa Falls	Iowa Falls Area Development Corporation	Industry Relations	BCOM

	Hardin	Iowa Falls	Hawkeye Renewables	OBP	BAC, FAC, TAC
	Hardin	Iowa Falls	Hawkeye Renewables	OBP	BAC, FAC, TAC
	Hardin	Iowa Falls	Hawkeye Renewables	OBP	BAC, FAC, TAC
	Hardin	Iowa Falls	Hawkeye Renewables	CCUR	FAC
	Hardin	Iowa Falls	Ellsworth Community College	Agricultural Education and Studies	OCOM
	Hardin	Iowa Falls	Ellsworth Community College	Agricultural Education and Studies	OCOM
	Hardin	Iowa Falls	Ellsworth College Trustees	Hardin County Extension	OCOM
	Hardin	Iowa Falls	Iowa Falls Chamber/Main Street	Hardin County Extension	FAC
	Hardin	Iowa Falls	Leadership Iowa Falls Experience	Hardin County Extension	FAC
	Hardin	Eldora	City of Eldora	ISU Extension	BCOM
Hardin County	43				43
	Harrison	Woodbine	Greenfield Horizons	ISU Extension	OCOM
	Harrison	Logan	Harrison County Development Corporation	College of Engineering	FAC
	Harrison	Logan	Nex-Gen Biofuels, Inc.	Extension CED	BAC
	Harrison	Woodbine	NPMA-Council Bluffs	Extension CED	PWD
	Harrison		Renew Rural Iowa	Extension CED	FAC
	Harrison	Logan	Day 6 By	CIRAS and Harrison Co Extension	BAC
	Harrison	Magnolia	Sawmill Hollow, Inc.	Harrison Co. Extension and Commercial Horticulture Field Specialist	BAC
	Harrison	Mo. Valley	TJ's Future Lawns	Harrison Co. Extension	BAC
	Harrison	Woodbine	E4 Sons	Harrison Co. Extension	BAC
	Harrison	Logan	HCDC	Harrison Co. Extension	BCOM
	Harrison	Woodbine	Woodbine Retail Trade	Harrison Co. Extension and Communities and Business Field Specialist	BCOM
	Harrison	Mondamin	HCDC (Mondamin Railhead, LLC)	Harrison Co. Extension	FAC
	Harrison	Logan	Day 6 By	CIRAS and Harrison Co Extension	TAC
	Harrison	Magnolia	Sawmill Hollow, Inc.	Harrison Co. Extension and Commercial Horticulture Field Specialist	TAC
	Harrison	Woodbine	Woodbine Horizons	ISU Extension	OCOM
	Harrison	all communities	Volunteer Income Tax Assistance	ISU Extension	OCOM
	Harrison		Multi-State Regional Development	Extension CED	FAC
	Harrison		Rural Development Resource Center	Extension CED	FAC
	Harrison		Rural Development Resource Center: Grow Iowa Fund; Wallace Fund; Southwest Iowa Coalition	Extension CED	BAC/ TCOM/ FAC/ BCOM
	Harrison		Rural Development Summit	Extension CED	FAC
	Harrison		Southwest Iowa Coalition	Extension CED	FAC
Harrison County	21				21
	Henry	Mount Pleasant	LINCS Committee	IDRO, Landscape Architecture Landscape , CRP	BCOM
	Henry	Mt. Pleasant	Mt. Pleasant Chamber of Commerce	College of Engineering	BCOM
	Henry	Winfield	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Henry	Mt. Pleasant	West Liberty Foods	Meat Science Extension	PWD
	Henry	Mount Pleasant	LINCS Committee	IDRO, Landscape Architecture Extension Landscape Extension , CRP Extension	BCOM
	Henry	Mt. Pleasant	Mt. Pleasant	Extension CED	OCOM
	Henry	Mount Pleasant	ANNA's Pantry	CEED	BAC
	Henry	Mount Pleasant	Mount Pleasant LINCS	Community Viz/Communities Extension	BAC
	Henry	Mount Pleasant	Farmer's Market Growers	CEED	BCOM
	Henry	Mount Pleasant	Chamber of Commerce/Entrepreunership	CEED	BCOM
	Henry	Mount Pleasant	New Iowans Workforce Development	CEED	BCOM
	Henry	Mount Pleasant	Mt. Pleasant Foods	ISU Meats-Cordray/SE Extension	PWD
	Henry	Mount Pleasant	Grasshopper Green	Anita Hampton-Local Childcare	PWD
	Henry	Winfield	Warmth and Wonders	Anita Hampton-Local Childcare	PWD
	Henry	New London	Glow and Grow	Anita Hampton-Local Childcare	PWD
	Henry	Mount Pleasant	Owl's Nest	Anita Hampton-Local Childcare	PWD
	Henry	Mount Pleasant	Heatilator	ISUE-CIRAS	TAC
	Henry	Mount Pleasant	Heatilator	ISUE-CIRAS	TAC
	Henry	Mt Pleasant	Fellowship Cup Corp.	Extension CED	PWD
	Henry	Mt. Pleasant	Community Youth Coalition	Extension CED	OCOM
	Henry		County Local Housing Trust Fund	Extension CED	TCOM
	Henry		Henry County	Extension CED	TCOM
	Henry		Henry County tourism	Extension CED	FAC
	Henry	Mt. Pleasant	The Nest	ISU Extension	PWD
Henry County	24				24

	Howard	Elma	Elma	Landscape Architecture, IDRO	BCOM
	Howard	Lime Springs	Lime Springs	Landscape Architecture, IDRO	BCOM
	Howard	Upper Explorerland	Building & Zoning	CRP	TCOM
	Howard	Cresco	Cresco Food Technologies	Meat Science Extension	PWD
	Howard	Elma	Elma Locker & Grocery Inc	Meat Science Extension	PWD
	Howard	Lime Springs	Lime Springs Locker	Meat Science Extension	PWD
	Howard	Protivin	Polashek's Locker	Meat Science Extension	PWD
	Howard	Riceville	Riceville Locker	Meat Science Extension	PWD
	Howard	Cresco	NE Iowa Community Development Conference	Extension CED	FAC
	Howard	Elma	Elma	Landscape Architecture, IDRO	BCOM
	Howard	Lime Springs	Lime Springs	Landscape Architecture, IDRO	BCOM
	Howard	Upper Explorerland	Building & Zoning	Extension CED, CRP Extension	TCOM
	Howard		Howard County Auditors	Extension CED	OCOM
	Howard		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
	Howard		Northeast Iowa Food & Farm Coalition	Howard County Extension	BCOM
	Howard		Northeast Iowa Food & Fitness Initiative	Howard County Extension	BCOM
	Howard	Elma	Elma HORIZONS	Howard County Extension	BCOM
	Howard	Cresco	Cresco Chamber Board	Howard County Extension	FAC
	Howard	Cresco	Community Service Committee	Howard County Extension	FAC
	Howard	Elma	Cedar Valley Produce Auction	ISU Extension & Howard Co. Extension	PWD
	Howard	Cresco	Regional Health Services	ISU Extension	OCOM
	Howard	Cresco	Donaldson Company	ISU Extension	PWD
	Howard	Protivin	Art's Milling	ISU Extension	PWD
	Howard	Elma	Peoples Savings Bank	ISU Extension	PWD
Howard County	24				24
	Howard		NE Iowa Community Development Conference	Extension CED	FAC
	Howard		NE Iowa Food & Farm Coalition	CD-DIAL - Sociology Extension	BAC
Howard County	2				2
	Humboldt	Humboldt	Humboldt County Development Association	OIPTT	BCOM
	Humboldt	Humboldt	Hadar Mfg. Inc.	College of Engineering	TAC
	Humboldt	Humboldt	Dodgen Industries	Center for Nondestructive Evaluation, IPRT	TAC
	Humboldt	Dakota City	NE Iowa Community Development Conference	Extension CED	FAC
	Humboldt		NE Iowa Community Development Conference	Extension CED	FAC
	Humboldt	Humboldt	Humboldt County Community Foundation	Humboldt County ISU Extension	FAC
	Humboldt	Humboldt	Mid Iowa Development Conference Committee	Humboldt County ISU Extension	FAC
	Humboldt	Humboldt	Humboldt County Barn Quilts Project	Humboldt County ISU Extension	OCOM
	Humboldt	Humboldt	Humboldt Sheltered Workshop Staff	ISU Extension	PWD
	Humboldt	Humboldt	Greenbelt Power Cooperative	ISU Extension	PWD
	Humboldt	Humboldt	County maintenance and Road Crews	ISU Extension	PWD
	Humboldt	Humboldt	Hog Slot, Inc	ISU Extension	PWD
	Humboldt	Humboldt	Businesses owned/operated by women	ISU Extension	PWD
	Humboldt	Humboldt	Lighten Up Iowa-Humboldt Memorial Hospital	ISU Extension	PWD
	Humboldt	Humboldt	Dodgen Industries Inc	ISUE-CIRAS	TAC
	Humboldt	Gilmore City	Calcium Products Inc	ISUE-CIRAS	TAC
	Humboldt	Humboldt	Dodgen Industries Inc	ISUE-CIRAS	BAC
	Humboldt	Humboldt	Hy-Capacity Engineering and Mfg	ISUE-CIRAS	TAC
	Humboldt	Humboldt	Hy-Capacity Engineering and Mfg	ISUE-CIRAS	TAC
	Humboldt	Humboldt	Hy-Capacity Engineering and Mfg	ISUE-CIRAS	TAC
	Humboldt	Humboldt	Hy-Capacity Engineering and Mfg	ISUE-CIRAS	TAC
	Humboldt	Humboldt	Yacht Club Trailers	ISUE-CIRAS	TAC
	Humboldt	Humboldt	Hy-Capacity Engineering and Mfg	ISUE-CIRAS	TAC
	Humboldt	Humboldt	City of Humboldt	CTRE/CP Tech	PWD
	Humboldt	Humboldt	Humboldt Co. Engineering Office	CTRE/CP Tech	PWD
	Humboldt		Humboldt County Auditors	Extension CED	OCOM
	Humboldt	Humboldt	Humboldt County E-911	Extension CED	PWD
Humboldt County	27				27
	Humbolt	Gowrie	Garden of Dreams Winery	Armstrong Research Farm, ISU	TAC
Humbolt County	1				1
	Ida	Holstein	Pork Peer Group	David Stender	FAC
	Ida	Galva	Galva	Landscape Architecture, IDRO	BCOM
	Ida	Holstein	V-T Industries, Inc.	IPRT Company Assistance-Materials	TAC
	Ida	Holstein	Distance Education Students = 3	Brenton Ctr for Ag Instruction	PWD
	Ida	Holstein	Food Locker Service, Inc.	Meat Science Extension	PWD
	Ida	Holstein	Tiefenthaler Quality Meats	Meat Science Extension	PWD
	Ida	Galva	Galva	Landscape Architecture, IDRO	BCOM
	Ida		Ida County	Extension CED	OCOM
	Ida	Ida Grove	Battle Creek Ida Grove Comm. School Dist	ISU Extension	PWD
	Ida	Holstein	Maple River Energy LLC	ISUE-CIRAS	TAC

	Ida		24 election officials certified	CED	OCOM
	Ida	Ida Grove	Battle Creek Ida Grove Comm. School Dist	Families Extension	PWD
	Ida		Ida County ED Forum	Communities	FAC
	Ida	Ida Grove	GOMACO Corp.	CTRE/CP Tech	PWD
	Ida	Ida Grove	Ida Co.	CTRE/CP Tech	PWD
	Ida	Galva	Quad County Corn Processors	Industry Relations	TAC
	Ida	Galva	Quad County Corn Processors	Industry Relations	TAC
	Ida		24 election officials certified	Extension CED	OCOM
	Ida		Ida County Auditors	Extension CED	OCOM
	Ida		Ida County Community Betterment Foundation	CD-DIAL - Sociology Extension	OCOM
	Ida		Ida County ED Forum	Extension CED	FAC
Ida County	21				21
	Iowa	Amana	Tripletail Ventures, Inc.	OIPTT	BAC
	Iowa	Amana	Tripletail Ventures, Inc.	OIPTT	FAC
	Iowa	Victor	TL Fabrications	College of Business	FAC
	Iowa	Williamsburg	City Clerk/Treasurer	CRP	TCOM
	Iowa	Conroy	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Iowa	North English	Modern Coop Tel	NCRCRD	OCOM
	Iowa	Williamsburg	Roehrkasse Meat Co	Meat Science Extension	PWD
	Iowa	Williamsburg	City Clerk/Treasurer	Extension CED, CRP Extension	TCOM
	Iowa		Iowa County Auditors	Extension CED	OCOM
	Iowa	Homestead	The Old Creamery Theatre Co., Homestead	Johnson County Extension	PWD
	Iowa	Williamsburg	Iowa Valley RC&D, Williamsburg	Johnson County Extension	PWD
	Iowa		John Schulte Farm	Extension/Iowa Beef Center	TAC
	Iowa		Iowa Valley RC&D	Extension/Iowa Beef Center	BAC
	Iowa		Price Creek Watershed Project	Extension/Iowa Beef Center	OCOM
	Iowa	Marengo	Fireside Winery	Midwest Grape & Wine Industry Institute	TAC, BAC
	Iowa	South Amana	Iowa Co.	CTRE/CP Tech	PWD
	Iowa	South Amana	Wendler Engineering & Construction	CTRE/CP Tech	PWD
	Iowa		Iowa County tourism	Extension CED	FAC
	Iowa		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
Iowa County	19				19
	Jackson	Preston	Iowa Grape Vines Juice Facility	Midwest Grape & Wine Industry Institute	BAC
	Jackson	Bellevue	Iowa Healthy Edge Meats	OIPTT	BAC
	Jackson	Maquoketa	Precision Pulley & Idler	IPRT Company Assistance-NDE	TAC
	Jackson	Monmouth	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Jackson	Miles	Scooties Pizza	Meat Science Extension	PWD
	Jackson	Preston	Preston Community Schools	Agricultural Education and Studies	OCOM
	Jackson		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
	Jackson	Maquoketa	Jackson County	ISUE Jackson County	FAC
	Jackson	Maquoketa	Jackson County Emergency Management	ISUE Jackson County	OCOM
	Jackson	Maquoketa	City of Maquoketa	ISUE Jackson County	OCOM
	Jackson	Preston	Preston Community Schools	ISUE Jackson County	OCOM
	Jackson	Maquoketa	Maquoketa Community School Disctrict	ISUE Jackson County	OCOM
	Jackson	Maquoketa	KMAQ Radio Station	ISU Extension	PWD
	Jackson		Event in Jackson County	ISUE-CIRAS	FAC
	Jackson	Bellevue	City of Bellevue	CTRE/CP Tech	PWD
	Jackson	Bellevue	City of Bellevue	CTRE/CP Tech	PWD
Jackson County	16				16
	Jasper	Monroe	City Administrator	CRP	TCOM
	Jasper	Sully	Co-Line Welding, Inc.	IPRT Company Assistance-NDE	TAC
	Jasper	Reasnor	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Jasper	Sully	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Jasper	Newton	Distance Education Students = 4	Brenton Ctr for Ag Instruction	PWD
	Jasper	Reasnor	PSEOA Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Jasper	Monroe	City Administrator	Extension CED, CRP Extension	TCOM
	Jasper	Newton	Central Iowa Payroll	Extension CED	PWD
	Jasper	Newton	former Maytag employees	Extension CED	BCOM
	Jasper	Newton	NE Iowa Community Development Conference	Extension CED	FAC
	Jasper	Newton	Newton	Extension CED	TCOM/ TAC
	Jasper	Newton	Newton Community Ed. Foundation	Extension CED	PWD
	Jasper		Jasper County	Extension CED	TCOM
	Jasper	Newton	Maytag Engineeers	Jasper County Office	BAC
	Jasper	Newton	Newton Development Corporation	Jasper County Office	FAC
	Jasper	Newton	Newton Chamber of Commerce	Jasper County Office	FAC
	Jasper	Newton	Newton Transformation Council	Jasper County Office	FAC
	Jasper	Newton	Entrepreneurial Cluster Group	Jasper County Office	BAC

	Jasper	Newton	McDonalds of Newton	ISU Extension	PWD
	Jasper		Event in Jasper County	ISUE-CIRAS	BAC
	Jasper	Prairie City	Moore Machining and Mfg	ISUE-CIRAS	BAC
	Jasper	Sully	Co-Line Welding Inc	ISUE-CIRAS	TAC
	Jasper	Newton	Jasper Co.	CTRE/CP Tech	PWD
	Jasper	Newton	Johnstone & Assoc.	CTRE/CP Tech	PWD
	Jasper	Newton	Jasper County Supervisor	Industry Relations	BCOM
	Jasper	Newton	Newton Transfortation Council	College of Engineering	BCOM
	Jasper	Newton	Whirlpool Corporation	College of Engineering	TAC
	Jasper	Newton	Springboard Engineering	College of Engineering	TAC
	Jasper	Newton	JEDCO	College of Engineering	BCOM
	Jasper	Newton	City of Newton	College of Engineering	BCOM
	Jasper	Newton	Maytag	College of Engineering	PWD
	Jasper	Newton	Federal Home Loan Bank Des Moines	College of Engineering	PWD
	Jasper		25 entrepreneurs	Extension CED	BAC
	Jasper		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
Jasper County	34				34
	Jefferson	Fairfield	Joel Health Industries Inc	OIPTT	BAC
	Jefferson	Fairfield	Freedom 360	OIPTT	BAC
	Jefferson	Fairfield	City Council	CRP	TCOM
	Jefferson	Packwood	CAI Students	Crop Advisor Institute	PWD
	Jefferson	Libertyville	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Jefferson	Lockridge	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Jefferson	Fairfield	Distance Education Students = 3	Brenton Ctr for Ag Instruction	PWD
	Jefferson	Packwood	Packwood Locker	Meat Science Extension	PWD
	Jefferson	Fairfield	PSEOA Distance Education Students = 5	Brenton Ctr for Ag Instruction	PWD
	Jefferson	Pekin	Pekin Community School	Agricultural Education and Studies	FAC
	Jefferson	Fairfield	4-H Youth	Extension CED	OCOM
	Jefferson	Fairfield	City Council	Extension CED, CRP Extension	TCOM
	Jefferson	Batavia	City of Batavia	Jefferson County Extension	OCOM
	Jefferson	Packwood	City of Packwood	Jefferson County Extension	OCOM
	Jefferson	Fairfield	City of Fairfield	Jefferson County Extension	OCOM
	Jefferson	Fairfield	Jefferson County Trails Council	Jefferson County Extension	OCOM
	Jefferson	Fairfield	Name	ISU Extension	TAC
	Jefferson	Fairfield	Harper Brush Works	ISUE-CIRAS	TAC
	Jefferson	Fairfield	Harper Brush Works	ISUE-CIRAS	BAC
	Jefferson	Fairfield	French-Reneker Associates, Inc.	CTRE/CP Tech	PWD
	Jefferson	Fairfield	Iowa DOT	CTRE/CP Tech	PWD
	Jefferson		Jefferson County tourism	Extension CED	FAC
Jefferson County	22				22
	Johnson	Coralville	Integrated DNA Technologies, Inc.	OIPTT	BAC
	Johnson	Iowa City	University of Iowa SBDC	OIPTT	BCOM
	Johnson	Iowa City	West Wind Educational Policy	OIPTT	FAC
	Johnson	Iowa City	Ramaanchar Technologies, Inc.	OIPTT	BAC
	Johnson	Iowa City	Bio::Neos	OIPTT	BAC
	Johnson	Iowa City	Cyber-Anatomy	OIPTT	BAC
	Johnson	Iowa City	University of Iowa Technology Innovation Center	OIPTT	FAC
	Johnson	Coralville	Innovative Software Engineering	OIPTT	FAC
	Johnson	Iowa City	The Thomas Group	OIPTT	FAC
	Johnson	Iowa City	InnoMatix, LLC	OIPTT	FAC
	Johnson	Iowa City	Componica	OIPTT	FAC
	Johnson	Iowa City	ASL Analytical	OIPTT	FAC
	Johnson	Iowa City	National Genecular Institute	OIPTT	FAC
	Johnson	Coralville	Integrated DNA Technologies, Inc.	OIPTT	FAC
	Johnson	Lone Tree	Lone Tree	Landscape Architecture, IDRO	BCOM
	Johnson	Iowa City	ACT	College of Engineering	BAC
	Johnson	Iowa City	Pfizer	College of Engineering	FAC
	Johnson	Coralville	Global Reach Internet Productions	College of Engineering	PWD
	Johnson	North Liberty	Primus Telecommunications	College of Engineering	PWD
	Johnson	Iowa City	Oral B Laboratories	IPRT Company Assistance-Materials	TAC
	Johnson	Iowa City	Asoyia	CCUR and FSHN	FAC
	Johnson	Tiffin	Clear Creek Amana High School	College of Engineering / ABE (PLTW)	OCOM
	Johnson	Coralville	Distance Education Students = 4	Brenton Ctr for Ag Instruction	PWD
	Johnson	Iowa City	Distance Education Students = 4	Brenton Ctr for Ag Instruction	PWD
	Johnson	North Liberty	Distance Education Students = 4	Brenton Ctr for Ag Instruction	PWD
	Johnson	Iowa City	West High School	College of Engineering / ABE (PLTW)	OCOM
	Johnson	Iowa City	Asoyia	CCUR	FAC

	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	ASOYIA, LLC	ISURF	TT
	Johnson	Iowa City	Iowa City	Extension CED	PWD
	Johnson	Iowa City	Johnson County Agency Group	Extension CED	FAC
	Johnson	Lone Tree	Lone Tree	Landscape Architecture, IDRO	BCOM
	Johnson		(confidential name)	CD-DIAL - Sociology Extension	PWD
	Johnson		Johnson County tourism	Extension CED	FAC
	Johnson		Johnson County Auditors	Extension CED	OCOM
	Johnson	Iowa City	University of Iowa	4-H Operation: Military Kids	OCOM
	Johnson	Iowa City	Hills Bank Leadership Program	4-H Youth Development	OCOM
	Johnson	Iowa City	Mediation Services of Eastern Iowa, Iowa City	Johnson County Extension	PWD
	Johnson	Iowa City	Crisis Center, IC	Johnson County Extension	PWD
	Johnson	Iowa City	Iowa City Cultural Incubator, IC	Johnson County Extension	PWD
	Johnson	Coralville	International Brotherhood of Electrical Workers 1634, Coralville	Johnson County Extension	PWD
	Johnson	Iowa City	Kirkwood Community College, IC	Johnson County Extension	PWD
	Johnson	Iowa City	Girl Scouts of the Mississippi Valley, IC and Eldridge	Johnson County Extension	PWD
	Johnson	Iowa City	United Action for Youth, IC	Johnson County Extension	PWD
	Johnson	Iowa City	Iowa Nonprofit Resource Center, IC	Johnson County Extension	PWD
	Johnson	Iowa City	St. Andrew's Presbyterian Church, IC	Johnson County Extension	PWD
	Johnson	Iowa City	Iowa Women's Foundation, IC	Johnson County Extension	PWD
	Johnson	Iowa City	The University of Iowa, IC	Johnson County Extension	PWD
	Johnson	Coralville	Iowa Children's Museum, CV	Johnson County Extension	PWD
	Johnson	Iowa City	Arts a la Carte, IC	Johnson County Extension	PWD
	Johnson	Iowa City	Chamber Singers of Iowa City, IC	Johnson County Extension	PWD
	Johnson	Iowa City	Regina Education Center, IC	Johnson County Extension	PWD
	Johnson	Iowa City	Mediation Services of Eastern Iowa, IC	Johnson County Extension	PWD
	Johnson	Iowa City	Wesley Foundation, IC	Johnson County Extension	PWD
	Johnson	Shueyville	Shueyville United Methodist Church, Shueyville	Johnson County Extension	PWD
	Johnson	Iowa City	Mayor's Youth Empowerment Program, IC	Johnson County Extension	PWD
	Johnson	Iowa City	Iowa Workforce Development, IC	Johnson County Extension	PWD
	Johnson	Iowa City	Friends of the Animal Center Foundation, IC	Johnson County Extension	PWD
	Johnson	Iowa City	CROP Inc., IC	Johnson County Extension	PWD
	Johnson	Iowa City	Emma Goldman Clinic, IC	Johnson County Extension	PWD
	Johnson	Iowa City	Neighborhood Centers, IC	Johnson County Extension	PWD
	Johnson	Iowa City	Art of Living Foundation, IC	Johnson County Extension	PWD
	Johnson	Iowa City	Rape Victim Advocacy Program, IC	Johnson County Extension	PWD
	Johnson	Iowa City	Terry, Lockridge and Dunn, IC	Johnson County Extension	PWD
	Johnson	Iowa City	Johnson County VNA, IC	Johnson County Extension	PWD
	Johnson	Iowa City	Community Theatre, IC	Johnson County Extension	PWD
	Johnson	Iowa City	Iowa For Health Care, IC	Johnson County Extension	PWD
	Johnson	Coralville	Dance Ambassadors, CV	Johnson County Extension	PWD
	Johnson	Iowa City	Iowa City Police Department, IC	Johnson County Extension	PWD
	Johnson	Iowa City	University of Iowa Alumni Assocation, IC	Johnson County Extension	PWD
	Johnson	Solon	Johnson County Sheep & Wool Grower's, Solon	Johnson County Extension	PWD
	Johnson	Iowa City	National Alliance for the Mentally Ill, IC	Johnson County Extension	PWD
	Johnson	Swisher	Johnson County Soil & Water Conservation, Swisher	Johnson County Extension	PWD
	Johnson	Iowa City	Iowa City Public Library, IC	Johnson County Extension	PWD
	Johnson	Iowa City	Women's Resource and Action Center, IC	Johnson County Extension	PWD
	Johnson	Iowa City	The Jane's Gang, IC	Johnson County Extension	PWD
	Johnson	Iowa City	Sustainable Agriculture Coalition, IC	Johnson County Extension	PWD
	Johnson	Iowa City	Community Health Center for Mid-Eastern Iowa, IC	Johnson County Extension	PWD

	Johnson	Iowa City	Shelter House Community Shelter and Transition Services, IC	Johnson County Extension	PWD
	Johnson	Iowa City	University of Iowa Foundation, IC	Johnson County Extension	PWD
	Johnson	Iowa City	ACT	Johnson County Extension	PWD
	Johnson	Coralville	Barnes and Noble Cafe Manager	ISU Extension	PWD
	Johnson	Tiffin	Flying F Biofuels	ISUE-CIRAS	FAC
	Johnson	Iowa City	Keil's Maintenance, Inc.	ISUE-CIRAS	BAC
	Johnson	Iowa City	Moore Wallace Inc - Iowa City	ISUE-CIRAS	TAC
	Johnson	Iowa City	Moore Wallace Inc - Iowa City	ISUE-CIRAS	TAC
	Johnson	North Liberty	Centro Inc	ISUE-CIRAS	TAC
	Johnson	Coralville	City of Coralville	CTRE/CP Tech	PWD
	Johnson	Coralville	Hawkeye Ready Mix, Inc.	CTRE/CP Tech	PWD
	Johnson	Coralville	Shoemaker & Haaland	CTRE/CP Tech	PWD
	Johnson	Iowa City	City of Iowa City	CTRE/CP Tech	PWD
	Johnson	Iowa City	City of Marion	CTRE/CP Tech	PWD
	Johnson	Iowa City	Continental Cement	CTRE/CP Tech	PWD
	Johnson	Iowa City	Harris Company	CTRE/CP Tech	PWD
	Johnson	Iowa City	Iowa Concrete Paving	CTRE/CP Tech	PWD
	Johnson	Iowa City	Iowa DOT	CTRE/CP Tech	PWD
	Johnson	Iowa City	Johnson Co.	CTRE/CP Tech	PWD
	Johnson	Iowa City	Johnson Co. Secodary Roads	CTRE/CP Tech	PWD
	Johnson	Iowa City	MMS Consultants	CTRE/CP Tech	PWD
	Johnson	Iowa City	Shive-Hattery	CTRE/CP Tech	PWD
	Johnson	Iowa City	Streb Construction Co., Inc.	CTRE/CP Tech	PWD
	Johnson	Iowa City	University of Iowa	CTRE/CP Tech	PWD
	Johnson	North Liberty	City of North Liberty	CTRE/CP Tech	PWD
	Johnson	Iowa City	University of Iowa	Industry Relations	BCOM
	Johnson	Iowa City	Cellular Engineering Technologies	Industry Relations	TAC
	Johnson	Iowa City	Asoyia	CCUR	FAC
	Johnson		Cedar Rapids/Iowa City Corridor - STEM program	Linn and Johnson Co. Extension	OCOM
	Johnson	Iowa City	University of Iowa, various faculty	OIPTT	BAC
	Johnson		Kent Park Masterplan	Landscape Architecture	BCOM
	Johnson		Johnson County Conservation Board	Landscape Architecture IDRO	TCOM
	Johnson		County Local Housing Trust Fund	Extension CED	TCOM
	Johnson		Johnson County	Extension CED	TCOM
	Johnson		Johnson County Conservation Board	Landscape Architecture Extension, IDRO	TCOM
	Johnson		Kent Park Masterplan	Extension CED, Landscape Architecture Extension	BCOM
	Johnson		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
	Johnson	Iowa City	New Pioneer	ISU Extension	PWD
	Johnson	Iowa City	Mercy Hospital	ISU Extension	PWD
	Johnson	Coralville	Hardee's	ISU Extension	PWD
	Johnson	Iowa City	Sancturary	ISU Extension	PWD
	Johnson	Coralville	Panchero's Mexican Grill	ISU Extension	PWD
	Johnson	Coralville	New Age Restaurant	ISU Extension	PWD
	Johnson	Coralville	Applebee's	ISU Extension	PWD
Johnson County	148				148
	Jones	Anamosa	Planning & Zoning Commission	CRP	TCOM
	Jones	Anamosa	Planning & Zoning Commission	Extension CED, CRP Extension	TCOM
	Jones	Cascade	Cascade	Landscape Architecture, IDRO	BCOM
	Jones	Anamosa	Anamosa	Landscape Architecture, IDRO	BCOM
	Jones	Monticello	Monticello	Landscape Architecture, IDRO	BCOM
	Jones	Olin	Olin	Landscape Architecture, IDRO	BCOM
	Jones	Scotch Grove	CAI Students	Crop Advisor Institute	PWD
	Jones	Center Junction	Lindley Locker	Meat Science Extension	PWD
	Jones	Anamosa	Anamosa	Landscape Architecture, IDRO	BCOM
	Jones	Anamosa	NE Iowa Community Development Conference	Extension CED	FAC
	Jones	Monticello	Monticello	Landscape Architecture, IDRO	BCOM
	Jones	Olin	Olin	Landscape Architecture, IDRO	BCOM
	Jones	Monticello	Great Jones County Fair	CEED, OA, CYC, FS	BAC
	Jones	Anamosa	Jones County Farm Bureau	CEED, OA, CYC, FS	BAC
	Jones	Monticello	Tri County Bank & Trust	CEED	BAC
	Jones	Monticello	Monticello Express	CEED, OA, CYC, FS	BAC
	Jones	Anamosa	Anamosa Eureka Journal	CEED, OA, CYC, FS	BAC
	Jones	Wyoming	Midland Times	CEED, OA, CYC, FS	BAC
	Jones	Olin	River Valley Cooperative	CEED, CYC	BAC
	Jones	Monticello	Jones County Economic Development	CEED	BCOM
	Jones	Anamosa	Jones County Endowment Fund	CEED	BCOM
	Jones	Monticello	Jones County Cattlemen Board	CEED	BCOM
	Jones	Olin	City of Olin	CEED, FS	BCOM
	Jones	Wyoming	City of Wyoming	CEED, FS	BCOM
	Jones	Oxford Junction	City of Oxford Junction	CEED, FS	BCOM

	Jones	Anamosa	City of Anamosa	CEED, FS	BCOM
	Jones	Anamosa	Jones County Empowerment Board	CEED, FS	FAC
	Jones	Anamosa	County Child Care Resource Coalition	CEED, FS	FAC
	Jones	Anamosa	Jones County Leadership Program	CEED	FAC
	Jones	Anamosa	Jones County Career Expo	CEED, FS	FAC
	Jones	Anamosa	Jones County Board of Supervisors	CEED, FS	OCOM
	Jones	Anamosa	County Resource Coalition	CEED, FS	OCOM
	Jones	Anamosa	Jones County Emergency Management	CEED, FS	OCOM
	Jones	Monticello	Monticello High School	CEED	OCOM
	Jones	Olin	Olin High School	CEED	OCOM
	Jones		Miles Loy/ Triangle Agri Service	Extension/Iowa Beef Center	PWD
	Jones	Olin	Olin	ISU Extension	OCOM
	Jones	Oxford Junction	Oxford Junction	ISU Extension	OCOM
	Jones	Wyoming	Wyoming	ISU Extension	OCOM
	Jones	Anamosa	Wapsi Valley Archaeology, Inc.	ISUE-CIRAS	BAC
	Jones	Anamosa	City of Anamosa	CTRE/CP Tech	PWD
	Jones	Anamosa	Jones Co.	CTRE/CP Tech	PWD
	Jones	Anamosa	Jones Co.	CTRE/CP Tech	PWD
	Jones	Anamosa	Jones Co. Engineer	CTRE/CP Tech	PWD
	Jones	Monticello	City of Monticello	CTRE/CP Tech	PWD
	Jones		Planning & Zoning Comm. Chair	CRP	TCOM
	Jones		NE Iowa Community Development Conference	Extension CED	FAC
	Jones		Planning & Zoning Comm. Chair	Extension CED, CRP Extension	TCOM
	Jones		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
Jones County	49				49
	Keokuk	Delta	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Keokuk	Sigourney	Keokuk County Task Force	Extension CED	OCOM
	Keokuk	Sigourney	Sigourney	Extension CED	PWD
	Keokuk	Hedrick	City Hall	Extension Office	BCOM
	Keokuk	Ollie	City Hall	Extension Office	BCOM
	Keokuk	Sigourney	City Hall	Extension Office	BCOM
	Keokuk	Richland	City Hall	Extension Office	BCOM
	Keokuk	Keokuk County	Keokuk County DOT	Extension Office	FAC
	Keokuk	Keokuk County	Farm Bureau	Extension Office	FAC
	Keokuk	Keota	Vittetoe Manf	Extension Office	FAC
	Keokuk	Keota	Rayman Manf	Extension Office	FAC
	Keokuk	Keokuk County	Health Dept	Extension Office	OCOM
	Keokuk	Keokuk County	Keokuk County Health Center	Extension Office	OCOM
	Keokuk	Sigourney	Sigourney Schools	Extension Office	OCOM
	Keokuk	Keokuk	Tri-State Coalition Against Domestic & Sexual Abuse, Keokuk	Johnson County Extension	PWD
	Keokuk	Keswick	Crop Production Services	Extension Office	PWD
	Keokuk	North English	Crop Production Services	Extension Office	PWD
	Keokuk	Webster	New Alliance FS	Extension Office	PWD
	Keokuk	Hedrick	New Alliance FS	Extension Office	PWD
	Keokuk	Keota	Vision Ag	Extension Office	PWD
	Keokuk	Richland	Vision Ag	Extension Office	PWD
	Keokuk	Sigourney	Vision Ag	Extension Office	PWD
	Keokuk	Hedrick	Golden Furrow	Extension Office	PWD
	Keokuk	Harper	Gretters Elevator	Extension Office	PWD
	Keokuk	Signourney	Keokuk County Hwy Dept.	CTRE/CP Tech	PWD
	Keokuk	Sigourney	Keokuk Co.	CTRE/CP Tech	PWD
Keokuk County	26				26
	Kossuth	Algona	Algona	Landscape Architecture, IDRO	BCOM/ OCOM
	Kossuth	Bancroft	Bancroft	Landscape Architecture, IDRO	BCOM
	Kossuth	Titonka	Titonka	Landscape Architecture, IDRO	BCOM
	Kossuth	Algona	Kossuth/Palo Alto County Economic Development Corporation	College of Engineering	BCOM
	Kossuth	Fenton	Murphy Brown LLC	College of Engineering	PWD
	Kossuth	West Bend	BioMassters Energy, Inc.	IPRT Company Assistance-Materials	TAC
	Kossuth	West Bend	BioMassters Energy, Inc.	IPRT Company Assistance-Technology Commercialization	TT
	Kossuth	Algona	CAI Students	Crop Advisor Institute	PWD
	Kossuth	Algona	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Kossuth	Bancroft	Welp Hatchery	Animal Science-Bregendahl	TAC
	Kossuth	Lakota	Shirley Loucks	ISURF	TT
	Kossuth	Lakota	Shirley Loucks	ISURF	TT
	Kossuth	Algona	Algona	Landscape Architecture, IDRO	BCOM/ OCOM
	Kossuth	Bancroft	Bancroft	Landscape Architecture, IDRO	BCOM
	Kossuth	Titonka	Titonka	Landscape Architecture, IDRO	BCOM
	Kossuth		Kossuth County Auditors	Extension CED	OCOM

	Kossuth	Algona	Hydrogen Engine Center	ISUE-CIRAS	TAC
	Kossuth	Bancroft	Aluma Ltd	ISUE-CIRAS	TAC
	Kossuth	Algona	Kuehl & Payer Ltd.	CTRE/CP Tech	PWD
	Kossuth	Lakota	Midwest Grain Processors	Industry Relations	TAC
	Kossuth		Kossuth County Auditors	Extension CED	OCOM
Kossuth County	21				21
	Lee	Franklin	Franklin	Landscape Architecture, IDRO	BCOM
	Lee	West Point	West Point	Landscape Architecture, IDRO	BCOM
	Lee	Montrose	Lee County Economic Development	College of Engineering	BCOM
	Lee	Fort Madison	Pinnacle Foods - Armour	Meat Science Extension	PWD
	Lee	Keokuk	Roquette	CCUR	FAC
	Lee	Keokuk	Roquette	CCUR	FAC
	Lee	West Point	M.S. Technologies, LLC	ISURF	TT
	Lee	Franklin	Franklin	Landscape Architecture, IDRO	BCOM
	Lee	West Point	West Point	Landscape Architecture, IDRO	BCOM
	Lee	Keokuk	Tri-City Energy	Lee County Extension	BAC
	Lee	Keokuk	Keokuk Chamber of Commerce	Lee County Extension	BAC
	Lee	Fort Madison	Fort Madison Chamber of Commerce	Lee County Extension	BAC
	Lee	Keokuk	Keokuk Area Convention and Tourism Bureau	Lee County Extension	BAC
	Lee	Lee County	Lee County Fairboard	Lee County Extension	BAC
	Lee	Fort Madison	Train Town Fort Madison	Lee County Extension	BAC
	Lee	Montrose	Iowa Corrections	Lee County Extension	BAC
	Lee	Fort Madison	Iowa Prison Industries	Lee County Extension	BAC
	Lee	Montrose	The Welding Shop	Lee County Extension	BAC
	Lee	Lee County	Agri-Need (three locations)	Lee County Extension	BAC
	Lee	Houghton	Chem-Gro	Lee County Extension	BAC
	Lee	Donnellson	Donnellson Elevator	Lee County Extension	BAC
	Lee	Lee County	Kathy's Pumpkin Patch Ag Tourism	Lee County Extension	BAC
	Lee	Lee. Co	Lee County Economic Development	Lee County Extension	BCOM
	Lee	Franklin	City of Franklin	Lee County Extension	BCOM
	Lee	West Point	City of West Point	Lee County Extension	BCOM
	Lee	Montrose	City of Montrose	Lee County Extension	BCOM
	Lee	Keokuk	City of Keokuk	Lee County Extension	BCOM
	Lee	Keokuk	City of Fort Madison	Lee County Extension	BCOM
	Lee	Keokuk	Keokuk Chamber of Commerce	Lee County Extension	BCOM
	Lee	Keokuk	Keokuk Main Street Program	Lee County Extension	BCOM
	Lee	Lee. Co	Lee County Emergency Management	Lee County Extension	BCOM
	Lee	Fort Madison	Fort Madison Chamber of Commerce	Lee County Extension	BCOM
	Lee	Keokuk	Keokuk Area Convention and Tourism Bureau	Lee County Extension	BCOM
	Lee	Lee. Co	Lee County Conservation	Lee County Extension	BCOM
	Lee	Keokuk	Alliant Energy	Lee County Extension	BCOM
	Lee	Tri-County	Iowa DNR Forestry	Lee County Extension	BCOM
	Lee	Fort Madison	Train Town Fort Madison	Lee County Extension	BCOM
	Lee	Fort Madison	Fort Madison Parks and Recreation	Lee County Extension	BCOM
	Lee	Montrose	The Welding Shop	Lee County Extension	BCOM
	Lee	Lee County	Lee County Board of Supervisors	Lee County Extension	BCOM
	Lee	Keokuk	Keokuk Rotary	Lee County Extension	BCOM
	Lee	Keokuk	Lions Club	Lee County Extension	BCOM
	Lee	Keokuk	Keokuk Housing Authority	Lee County Extension	BCOM
	Lee	Tri-State Area	KOKX Broadcasting Company	Lee County Extension	BCOM
	Lee	Fort Madison	Fort Madison Daily Democrat	Lee County Extension	BCOM
	Lee	Lee. Co	Lee County Economic Development	Lee County Extension	FAC
	Lee	Keokuk	Keokuk Chamber of Commerce	Lee County Extension	FAC
	Lee	Lee. Co	Lee County Emergency Management	Lee County Extension	FAC
	Lee	Fort Madison	Fort Madison Chamber of Commerce	Lee County Extension	FAC
	Lee	Keokuk	Keokuk Area Convention and Tourism Bureau	Lee County Extension	FAC
	Lee	Lee. Co	Lee County Conservation	Lee County Extension	FAC
	Lee	Keokuk	Alliant Energy	Lee County Extension	FAC
	Lee	Tri-County	Iowa DNR Forestry	Lee County Extension	FAC
	Lee	Lee County	Lee County Fairboard	Lee County Extension	FAC
	Lee	Fort Madison	Train Town Fort Madison	Lee County Extension	FAC
	Lee	Montrose	Iowa Corrections	Lee County Extension	FAC
	Lee	Fort Madison	Iowa Prison Industries	Lee County Extension	FAC
	Lee	Lee County	Lee County Board of Supervisors	Lee County Extension	FAC
	Lee	Tri-County	Southeastern Community College	Lee County Extension	FAC
	Lee	Lee County	Agri-Need (three locations)	Lee County Extension	FAC
	Lee	Houghton	Chem-Gro	Lee County Extension	FAC
	Lee	Donnellson	Donnellson Elevator	Lee County Extension	FAC
	Lee	Donnellson	Crop Quest	Lee County Extension	FAC
	Lee	Lee County	Lee County Farm Bureau	Lee County Extension	FAC
	Lee	Keokuk	Keokuk Housing Authority	Lee County Extension	FAC
	Lee	Lee County	Monsanto Corporation	Lee County Extension	FAC
	Lee	Keokuk	Keokuk Daily Gate City	Lee County Extension	FAC
	Lee	Fort Madison	Matt's Bedding Plants	Lee County Extension	FAC
	Lee	Lee County	Lee County Health Department	Lee County Extension	FAC
	Lee	Fort Madison	Fort Madison Hospital	Lee County Extension	FAC
	Lee	Keokuk	Keokuk Hospital	Lee County Extension	FAC
	Lee	Fort Madison	YMCA	Lee County Extension	FAC
	Lee	Lee County	Natural Resource and Conservation Service	Lee County Extension	FAC
	Lee	Lee County	Farm Service Agency	Lee County Extension	FAC

	Lee	Lee County	Kathy's Pumpkin Patch Ag Tourism	Lee County Extension	FAC
	Lee	Lee County	Agriculture Commodity Groups	Lee County Extension	FAC
	Lee	Lee County	Iowa Woodland owners	Lee County Extension	FAC
	Lee	Lee County	Integrated Energy Investment Company	Lee County Extension	FAC
	Lee	Lee County	Farmers Markets Groups	Lee County Extension	FAC
	Lee	Keokuk	Roquette America Inc.	Lee County Extension	FAC
	Lee	Fort Madison	Fort Madison Public School District	Lee County Extension	OCOM
	Lee	Lee. Co	Lee County Emergency Management	Lee County Extension	OCOM
	Lee	Tri-County	Southeastern Community College	Lee County Extension	OCOM
	Lee	Lee County	Lee County Farm Bureau	Lee County Extension	OCOM
	Lee	Keokuk	Keokuk Rotary	Lee County Extension	OCOM
	Lee	Keokuk	Lions Club	Lee County Extension	OCOM
	Lee	Keokuk	Keokuk Housing Authority	Lee County Extension	OCOM
	Lee	Tri-State Area	KOKX Broadcasting Company	Lee County Extension	OCOM
	Lee	Fort Madison	Fort Madison Daily Democrat	Lee County Extension	OCOM
	Lee	Keokuk	Keokuk Daily Gate City	Lee County Extension	OCOM
	Lee	Lee County	Lee County Health Department	Lee County Extension	OCOM
	Lee	Fort Madison	Fort Madison Hospital	Lee County Extension	OCOM
	Lee	Keokuk	Keokuk Hospital	Lee County Extension	OCOM
	Lee	Fort Madison	YMCA	Lee County Extension	OCOM
	Lee	Montrose	Lee County Economic Development Group, Montrose	Johnson County Extension	PWD
	Lee	Lee County	Iowa Department of AgricultureLand Stewarship	Lee County Extension	PWD
	Lee	Lee. Co	Lee County Conservation	Lee County Extension	TAC
	Lee	Keokuk	Alliant Energy	Lee County Extension	TAC
	Lee	Tri-County	Iowa DNR Forestry	Lee County Extension	TAC
	Lee	Lee County	Lee County Fairboard	Lee County Extension	TAC
	Lee	Fort Madison	Train Town Fort Madison	Lee County Extension	TAC
	Lee	Montrose	Iowa Corrections	Lee County Extension	TAC
	Lee	Fort Madison	Iowa Prison Industries	Lee County Extension	TAC
	Lee	Keokuk	Keokuk Public Works	Lee County Extension	TAC
	Lee	Lee County	Agri-Need (three locations)	Lee County Extension	TAC
	Lee	Houghton	Chem-Gro	Lee County Extension	TAC
	Lee	Donnellson	Donnellson Elevator	Lee County Extension	TAC
	Lee	Donnellson	Crop Quest	Lee County Extension	TAC
	Lee	Lee County	Monsanto Corporation	Lee County Extension	TAC
	Lee	Tri-State Area	KOKX Broadcasting Company	Lee County Extension	TAC
	Lee	Fort Madison	Fort Madison Daily Democrat	Lee County Extension	TAC
	Lee	Keokuk	Keokuk Daily Gate City	Lee County Extension	TAC
	Lee	Fort Madison	Matt's Bedding Plants	Lee County Extension	TAC
	Lee	Lee County	Natural Resource and Conservation Service	Lee County Extension	TAC
	Lee	Lee County	Farm Service Agency	Lee County Extension	TAC
	Lee	Lee County	Kathy's Pumpkin Patch Ag Tourism	Lee County Extension	TAC
	Lee	Lee County	Agriculture Commodity Groups	Lee County Extension	TAC
	Lee	Lee County	Iowa Woodland owners	Lee County Extension	TAC
	Lee	Lee County	Iowa Department of AgricultureLand Stewarship	Lee County Extension	TAC
	Lee	Lee County	Hertz Farm Management	Lee County Extension	TAC
	Lee	Lee County	Integrated Energy Investment Company	Lee County Extension	TAC
	Lee	Lee County	Rathbun Rural Water Association	Lee County Extension	TAC
	Lee	Franklin	City of Franklin	Lee County Extension	TCOM
	Lee	West Point	City of West Point	Lee County Extension	TCOM
	Lee	Montrose	City of Montrose	Lee County Extension	TCOM
	Lee	Keokuk	City of Keokuk	Lee County Extension	TCOM
	Lee	Keokuk	City of Fort Madison	Lee County Extension	TCOM
	Lee	Keokuk	Keokuk Chamber of Commerce	Lee County Extension	TCOM
	Lee	Keokuk	Keokuk Main Street Program	Lee County Extension	TCOM
	Lee	Fort Madison	Fort Madison Chamber of Commerce	Lee County Extension	TCOM
	Lee	Lee. Co	Lee County Conservation	Lee County Extension	TCOM
	Lee	Keokuk	Alliant Energy	Lee County Extension	TCOM
	Lee	Tri-County	Iowa DNR Forestry	Lee County Extension	TCOM
	Lee	Fort Madison	Fort Madison Parks and Recreation	Lee County Extension	TCOM
	Lee	Keokuk	Keokuk Public Works	Lee County Extension	TCOM
	Lee	Lee County	Lee County Board of Supervisors	Lee County Extension	TCOM
	Lee	Keokuk	Habitat For Humanity	Lee County Extension	TCOM
	Lee	Fort Madison	Habitat For Humanity	Lee County Extension	TCOM
	Lee	Donnellson	Iowa Department of Transportation	Lee County Extension	TCOM
	Lee	Keokuk	Keokuk Daily Gate City	Lee County Extension	TCOM
	Lee	Donnellson	Iowa Department of Transportation	Lee County Extension	TT
	Lee	Tri-State Area	KOKX Broadcasting Company	Lee County Extension	TT
	Lee	Fort Madison	Fort Madison Daily Democrat	Lee County Extension	TT
	Lee	Donnellson	Sonnellson Heath Center	ISU Extension	PWD
	Lee	Houghton	Hawkeye Steel Products Inc	ISUE-CIRAS	TAC
	Lee	Keokuk	Tri-City Energy, LLC	ISUE-CIRAS	BAC
	Lee	Keokuk	Seither and Cherry	ISUE-CIRAS	BAC
	Lee	Fort Madison	Dial Corp	ISUE-CIRAS	TAC
	Lee	Keokuk	Roquette	CCUR	FAC
	Lee	Keokuk	A and E Waste Management	Lee County Extension	BAC
	Lee	Fort Madison	Hoeing's Landscape	Lee County Extension	BAC
	Lee	West Point	Merschaman Seeds	Lee County Extension	BAC
	Lee	Keokuk	Keokuk Public School System	Lee County Extension	FAC
	Lee	Donnellson	Central Lee Community School System	Lee County Extension	FAC
	Lee	Keokuk	YMCA	Lee County Extension	FAC
	Lee	West Point	Merschaman Seeds	Lee County Extension	FAC
	Lee	Keokuk	Keokuk Public School System	Lee County Extension	OCOM

	Lee	Donnellson	Central Lee Community School System	Lee County Extension	OCOM
	Lee	Keokuk	YMCA	Lee County Extension	OCOM
	Lee	Keokuk	A and E Waste Management	Lee County Extension	TAC
	Lee	West Point	Merschaman Seeds	Lee County Extension	TAC
	Lee	Fort Madison	Hoeing's Landscape	Lee County Extension	TAC
Lee County	162				162
	Linn	Cedar Rapids	County Planning & Zoning	CRP	TCOM
	Linn	Cedar Rapids	County Planning & Zoning	Extension CED, CRP Extension	TCOM
	Linn	Mount Vernon	Hills Bank	Economics & CCUR	BAC
	Linn	Mount Vernon	Iowa Producers - Cooperative Formation	Economics & CCUR	BAC
	Linn	Mount Vernon	Hills Bank	Economics & CCUR	BAC
	Linn	Mount Vernon	Iowa Producers - Cooperative Formation	Economics & CCUR	BAC
	Linn	Mount Vernon	Hills Bank	Economics & CCUR	BAC
	Linn	Mount Vernon	Iowa Producers - Cooperative Formation	Economics & CCUR	BAC
	Linn	Center Point	Council Member	CRP	TCOM
	Linn	Linn	Economic Development Coordinator	CRP	TCOM
	Linn	Center Point	Council Member	Extension CED, CRP Extension	TCOM
	Linn	Linn	Economic Development Coordinator	Extension CED, CRP Extension	TCOM
	Linn	Ely	New Leaf Interactive Media	OIPTT	BAC
	Linn	Cedar Rapids	Entrepreneurial Development Center, Inc.	OIPTT	FAC
	Linn	Cedar Rapids	Kirkwood Community College	OIPTT	BCOM
	Linn	Cedar Rapids	Express Auto Delivery	OIPTT	BAC
	Linn	Marion	Genovatech	OIPTT	BAC
	Linn	Marion	SwitchQuick	OIPTT	BAC
	Linn	Cedar Rapids	Bankers Trust	OIPTT	FAC
	Linn	Cedar Rapids	BankIowa	OIPTT	FAC
	Linn	Marion	Softronics	College of Business	FAC
	Linn	Alburnett	Alburnett	Landscape Architecture, IDRO	BCOM
	Linn	Cedar Rapids	ECICOG	CRP	BCOM
	Linn	Fairfax	City Clerk	CRP	TCOM
	Linn	Fairfax	Planning & Zoning Chairman	CRP	TCOM
	Linn	Fairfax	Fairfax	Landscape Architecture, IDRO	BCOM
	Linn	Hiawatha	Administrator	CRP	TCOM
	Linn	Hiawatha	Community Development Director	CRP	TCOM
	Linn	Hiawatha	Hiawatha	Landscape Architecture, IDRO; CED	BCOM/ TCOM
	Linn	Lisbon	Lisbon	Landscape Architecture, IDRO	BCOM
	Linn	Palo	Palo	Landscape Architecture, IDRO	BCOM
	Linn	Springville	Springville	Landscape Architecture, IDRO	BCOM
	Linn	Cedar Rapids	Rockwell Collins	College of Engineering	FAC
	Linn	Cedar Rapids	Cedar Ridge Vineyards	College of Engineering	BAC
	Linn	Cedar Rapids	Entrepreneurial Development Center	College of Engineering	FAC
	Linn	Hiawatha	First Voice	College of Engineering	TAC
	Linn	Robins	Freedom 360 Modular Homes	College of Engineering	FAC
	Linn	Cedar Rapids	Alliant Energy	College of Engineering	TAC
	Linn	Cedar Rapids	Rockwell Collins	College of Engineering	TAC
	Linn	Cedar Rapids	Basler Design Group	College of Engineering	PWD
	Linn	Cedar Rapids	IMAGEFUSION	College of Engineering	PWD
	Linn	Cedar Rapids	Square D	College of Engineering	PWD
	Linn	Cedar Rapids	Intermec Technologies	College of Engineering	PWD
	Linn	Cedar Rapids	Rockwell Collins	College of Engineering	PWD
	Linn	Iowa City	BIOWA	Center for Catalysis, IPRT	TAC, TT
	Linn	Iowa City	Midwest Forestry and Biofuels	Center for Catalysis, IPRT	TAC
	Linn	Cedar Rapids	Rockwell Collins	Center for Nondestructive Evaluation, IPRT	TAC
	Linn	Cedar Rapids	Iowa Fluid Power, Inc.	IPRT Company Assistance-Materials	TAC
	Linn	Marion	Marion Mixers	IPRT Company Assistance-Materials	TAC
	Linn	Cedar Rapids	Rockwell Collins, Inc.	IPRT Company Assistance-Materials	TAC
	Linn	Cedar Rapids	Diamond V Mills, Inc.	IPRT Company Assistance-Technology Commercialization	TT
	Linn	Cedar Rapids	General Mills, Inc.	IPRT Company Assistance-Technology Commercialization	TT
	Linn	Cedar Rapids	Rockwell Collins, Inc.	IPRT Company Assistance-Technology Commercialization	TT
	Linn	Cedar Rapids	Cedar Rapids Police Department	Midwest Forensics Resource Center, IPRT	TCOM
	Linn	Cedar Rapids	Rockwell Collins	Virtual Reality Applications Center, IPRT	TAC, PWD
	Linn	Cedar Rapids	City Meat Market Inc.	Meat Science Extension	PWD
	Linn	Cedar Rapids	Diamond V	CCUR	FAC

	Linn	Cedar Rapids	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Linn	Ely	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Linn	Hiawatha	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Linn	Mt. Vernon	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Linn	Marion	Distance Education Students = 4	Brenton Ctr for Ag Instruction	PWD
	Linn	Cedar Rapids	Genencor (Danisco US Inc., Genencor Division)	CCUR	FAC, TAC
	Linn	Marion	Legacy Automotive & Industrial Products	Joseph Chen - ABE and CIRAS	TAC
	Linn	Marion	Linn-Mar High School	College of Engineering / ABE (PLTW)	OCOM
	Linn	Cedar Rapids	Midamar Corporation	Meat Science Extension	PWD
	Linn	Cedar Rapids	Kirkwood Community College	Agricultural Education and Studies	OCOM
	Linn	Cedar Rapids	Kirkwood Community College	Agricultural Education and Studies	OCOM
	Linn	Cedar Rapids	Linn-Marr Community Schools	Agricultural Education and Studies	OCOM
	Linn	Cedar Rapids	Diamond V	CCUR	FAC
	Linn	Cedar Rapids	Genencor (Danisco US Inc., Genencor Division)	CCUR	FAC, TAC
	Linn	Cedar Rapids	Diamond V. Mills, Inc.	ISURF	TT
	Linn	Alburnett	Alburnett	Landscape Architecture, IDRO	BCOM
	Linn	Cedar Rapids	Cedar Rapids	Extension CED	TCOM/ OCOM/ PWD
	Linn	Cedar Rapids	Dr. Trigger Enterprises Inc.	Extension CED	PWD
	Linn	Cedar Rapids	ECICOG	Extension CED, CRP Extension	BCOM
	Linn	Cedar Rapids	NE Iowa Community Development Conference	Extension CED	FAC
	Linn	Centerville	Appanoose County Assessor's Office	Extension CED	PWD
	Linn	Fairfax	City Clerk	Extension CED, CRP Extension	TCOM
	Linn	Fairfax	Fairfax	Landscape Architecture, IDRO	BCOM
	Linn	Fairfax	Planning & Zoning Chairman	Extension CED, CRP Extension	TCOM
	Linn	Hiawatha	Administrator	Extension CED, CRP Extension	TCOM
	Linn	Hiawatha	City of Hiawatha	Extension CED	BCOM
	Linn	Hiawatha	Community Development Director	Extension CED, CRP Extension	TCOM
	Linn	Hiawatha	Hiawatha	Landscape Architecture, IDRO; Extension CED	BCOM/ TCOM
	Linn	Lisbon	Lisbon	Landscape Architecture, IDRO	BCOM
	Linn	Marion	NE Iowa Community Development Conference	Extension CED	FAC
	Linn	Palo	Palo	Landscape Architecture, IDRO	BCOM
	Linn	Springville	Springville	Landscape Architecture, IDRO	BCOM
	Linn		Linn County - 15 in 5 Early Childhood effort	Linn County Extension	OCOM
	Linn		Linn County - Parent Education Consortium at worksites	Linn County Extension	OCOM
	Linn	Marion	Linn County Extension, Marion	Johnson County Extension	PWD
	Linn	Cedar Rapids	Young Parents Network, Cedar Rapids	Johnson County Extension	PWD
	Linn	Cedar Rapids	The History Center, CR	Johnson County Extension	PWD
	Linn	Hiawatha	American Red Cross, Hiawatha	Johnson County Extension	PWD
	Linn	Cedar Rapids	American Red Cross-Grant Wood Chapter, CR	Johnson County Extension	PWD
	Linn	Marion	Caleb Ministries, Marion	Johnson County Extension	PWD
	Linn	Cedar Rapids	Faith in Action, CR	Johnson County Extension	PWD
	Linn	Cedar Rapids	Arc of East Central Iowa, CR	Johnson County Extension	PWD
	Linn	Cedar Rapids	CCIA/Youth Leadership Program, CR	Johnson County Extension	PWD
	Linn	Marion	First United Methodist Church, Marion	Johnson County Extension	PWD
	Linn	Cedar Rapids	Faith in Action, CR	Johnson County Extension	PWD
	Linn	Cedar Rapids	Neighborhood Revitalization Service, CR	Johnson County Extension	PWD
	Linn	Marion	Caring Corner Christian Daycare, Marion	Johnson County Extension	PWD
	Linn	Cedar Rapids	House of Hope, CR	Johnson County Extension	PWD
	Linn	Cedar Rapids	Cedar Rapids Community School District, CR	Johnson County Extension	PWD
	Linn	Hiawatha	HACAP, Hiawatha	Johnson County Extension	PWD
	Linn	Cedar Rapids	Willis Dady Emergency Shelter, CR	Johnson County Extension	PWD
	Linn	Cedar Rapids	The Meth-Wick Community Inc., CR	Johnson County Extension	PWD
	Linn	Cedar Rapids	African American Historical Museum and Cultural Center of Iowa, CR	Johnson County Extension	PWD
	Linn	Marion	Community Health Free Clinic, Marion	Johnson County Extension	PWD
	Linn	Cedar Rapids	Coe College, CR	Johnson County Extension	PWD
	Linn	Marion	Iowa District East-Lutheran Church Mo. Synod, Marion	Johnson County Extension	PWD
	Linn		Linn and surrounding counties - nonprofit workshops	Linn County Extension	PWD

	Linn	Cedar Rapids	Midwest Dairy Assoc - Iowa Dairy Nut. Ad. Comm	ISU Extension	BCOM
	Linn	Marion	Summit Pointe	ISU Extension	PWD
	Linn	Cedar Rapids	Applebee's	ISU Extension	PWD
	Linn	Marion	Spybar on 10th	ISU Extension	PWD
	Linn	Cedar Rapids	Beckett's	ISU Extension	PWD
	Linn	Cedar Rapids	ADM	ISU Extension	PWD
	Linn	Marion	Culver's	ISU Extension	PWD
	Linn	Cedar Rapids	Garnet Place	ISU Extension	PWD
	Linn	Center Point	Pizza Place	ISU Extension	PWD
	Linn	Cedar Rapids	Kingston Hill	ISU Extension	PWD
	Linn	Cedar Rapids	Chili's	ISU Extension	PWD
	Linn	Cedar Rapids	Hydraulic Specialty Company	ISUE-CIRAS	TAC
	Linn	Mount Vernon	B4 Brands	ISUE-CIRAS	TAC
	Linn	Cedar Rapids	EcoLips Inc.	ISUE-CIRAS	TAC
	Linn	Center Point	Computer Software Development, Inc.	ISUE-CIRAS	BAC
	Linn	Cedar Rapids	Morning Star Studio LLC	ISUE-CIRAS	BAC
	Linn	Cedar Rapids	Ram Technology, LLC	ISUE-CIRAS	BAC
	Linn	Mount Vernon	Hands On Screenprint and Embroidery	ISUE-CIRAS	BAC
	Linn	Central City	Central City Manufacturing Inc.	ISUE-CIRAS	BAC
	Linn	Cedar Rapids	Hunter's Specialties Inc	ISUE-CIRAS	TAC
	Linn	Cedar Rapids	Engineered Seal Products Inc	ISUE-CIRAS	TAC
	Linn	Cedar Rapids	Goodwill Industries of SE Iowa	ISUE-CIRAS	TAC
	Linn	Cedar Rapids	Midwest Metal Products Co Inc	ISUE-CIRAS	TAC
	Linn	Cedar Rapids	Goodwill Industries of SE Iowa	ISUE-CIRAS	TAC
	Linn	Cedar Rapids	Ament, Inc.	CTRE/CP Tech	PWD
	Linn	Cedar Rapids	City of Cedar Rapids	CTRE/CP Tech	PWD
	Linn	Cedar Rapids	Construction Materials	CTRE/CP Tech	PWD
	Linn	Cedar Rapids	Conveyor Eng. & Mfg.	CTRE/CP Tech	PWD
	Linn	Cedar Rapids	Engineering Alliance Inc.	CTRE/CP Tech	PWD
	Linn	Cedar Rapids	Iowa DOT	CTRE/CP Tech	PWD
	Linn	Cedar Rapids	Shive-Hattery	CTRE/CP Tech	PWD
	Linn	Cedar Rapids	Snyder & Associates, Inc.	CTRE/CP Tech	PWD
	Linn	Cedar Rapids	Terracon Consultants, Inc	CTRE/CP Tech	PWD
	Linn	Central City	City of Central City	CTRE/CP Tech	PWD
	Linn	Ely	Martin Marietta Materials	CTRE/CP Tech	PWD
	Linn	Hiawatha	Hawkeye Ready Mix, Inc.	CTRE/CP Tech	PWD
	Linn	Marion	City of Marion	CTRE/CP Tech	PWD
	Linn	Marion	Linn Co.	CTRE/CP Tech	PWD
	Linn	Mount Vernon	City of Mount Vernon	CTRE/CP Tech	PWD
	Linn	Cedar Rapids	General Mills	OBP	BAC, FAC, TAC
	Linn	Cedar Rapids	Alliant Energy	Industry Relations	BCOM
	Linn	Cedar Rapids	Mello3z, LLC	Industry Relations	TAC
	Linn	Cedar Rapids	General Mills	OBP	BAC, FAC, TAC
	Linn	Cedar Rapids	Diamond V	CCUR	FAC
	Linn	Cedar Rapids	Genencor (Danisco US Inc., Genencor Division)	CCUR	FAC, TAC
	Linn		County Local Housing Trust Fund	Extension CED	TCOM
	Linn		County Local Housing Trust Fund	Extension CED	TCOM
	Linn		Lee County tourism	Extension CED	FAC
	Linn		Linn County Auditors	Extension CED	OCOM
	Linn		Linn County	Extension CED	OCOM
	Linn		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
	Linn		Cedar Rapids/Iowa City Corridor - STEM program	Linn and Johnson Co. Extension	OCOM
Linn County	166				166
	Louisa	Columbus Junction	Columbus Junction	Landscape Architecture, IDRO	BCOM
	Louisa	Columbus Junction	High School	CRP	BCOM
	Louisa	Grandview	Grandview	Landscape Architecture, IDRO	BCOM
	Louisa	Wapello	Wapello	Landscape Architecture, IDRO	BCOM
	Louisa	Columbus Junction	Tyson Foods	Meat Science Extension	PWD
	Louisa	Columbus Jct	Translators and Interpreters	Extension CED	PWD
	Louisa	Columbus Junction	Columbus Junction	Landscape Architecture, IDRO	BCOM
	Louisa	Columbus Junction	Columbus Junction	Extension CED	OCOM
	Louisa	Columbus Junction	High School	Extension CED, CRP Extension	BCOM
	Louisa	Grandview	Grandview	Landscape Architecture, IDRO	BCOM
	Louisa	Wapello	Wapello	Landscape Architecture, IDRO	BCOM
	Louisa	Morning Sun	Cloverdale Farms	Extension & School of Ag Professor	BAC
	Louisa	Morning Sun	Lindholm Law	Extension & School of Engineering	BAC
	Louisa	Morning Sun	Louisa Communications	Extension Director/CIRAS	BAC
	Louisa	Louisa County	Soil & Water Conservation District	Ag & Finance Field Specialists	BAC
	Louisa	Letts	Schlutz Enterprises	Ag Field Specialist	BAC
	Louisa	Morning Sun	Business Alliance	Extension Director	BCOM
	Louisa	Wapello	Louisa Development Group	School of Ag	BCOM
	Louisa	Columbus Junction	Community Club	Extension Director	BCOM

	Louisa	Morning Sun	Community Betterment	Extension Director & Specialist on Housing Trusts	BCOM
	Louisa	Morning Sun	Indian Hills Golf & Country Club	Extension Director	BCOM
	Louisa	Wapello	Louisa Development Group (Sr. Employment)	Extension Director	BCOM
	Louisa	Columbus Junction	Tri Rivers Foundation - Columbus Junction	Extension Field Specialist - Facilitation	FAC
	Louisa	Morning Sun	Louisa Development Group	Extension Director	FAC
	Louisa	Grandview	Louisa Development Group	Extension Director	FAC
	Louisa	Columbus Junction	Louisa Development Group	Extension Director	FAC
	Louisa	Columbus City	Louisa Development Group	Extension Director	FAC
	Louisa	Letts	Louisa Development Group	Extension Director	FAC
	Louisa	Oakville	Louisa Development Group	Extension Director	FAC
	Louisa	Fredonia	Louisa Development Group	Extension Director	FAC
	Louisa	Wapello	ADDS (Alcohol & Drug Dependency Services)	Extension Director	FAC
	Louisa	Louisa County	AEA 16	Extension Director	FAC
	Louisa	Louisa County	InterAgency Group	Extension Director	OCOM
	Louisa	Letts	L&M School	Extension Director	OCOM
	Louisa	Columbus Junction	People's Bank	Extension Director	OCOM
	Louisa	Morning Sun	Ultimate Fitness	Extension Director	OCOM
	Louisa	Wapello	Louisa County Courthouse Employees	Extension Director	OCOM
	Louisa	Louisa County	Louisa County Conservation Board	Extension Director	OCOM
	Louisa	Wapello	Southeastern Community College Planning Group	Extension Director	OCOM
	Louisa	Wapello	Grimm Brothers Plastics Corp	ISUE-CIRAS	TAC
	Louisa	Wapello	Louisa Co.	CTRE/CP Tech	PWD
	Louisa	Columbus Junction	Southeast Iowa Community Action	ISU Extension	PWD
	Louisa	Morning Sun	Morning Sun Care Center	ISU Extension	PWD
Louisa County	43				43
	Lucas	Chariton	Johnson Manufacturing Company	IPRT Company Assistance-NDE	TAC
	Lucas	Chariton	Chariton Comm School	McNay Research Farm, ISU	OCOM
	Lucas	Chariton	Dow Chemical	McNay Research Farm, ISU	FAC
	Lucas	Chariton	Nex-Gen Biofuels, Inc.	Extension CED	BAC
	Lucas	Chariton	Charition - Horizons Project	Families	OCOM
	Lucas	Chariton	Charition - Horizons Project	ISU Extension	OCOM
	Lucas	Chariton	City of Chariton	CTRE/CP Tech	PWD
	Lucas	Chariton	Iowa DOT	CTRE/CP Tech	PWD
	Lucas	Chariton	Lucas Co.	CTRE/CP Tech	PWD
	Lucas	Chariton	Iowa Telecom	Industry Relations	BCOM
	Lucas	Chariton	Kent Farm Mangement & Real Estate	Agricultural Education and Studies	FAC
	Lucas		ADLM Empowerment Board	CD-DIAL - Sociology Extension	OCOM
	Lucas		Lucas - ISU Extension County Office Marketing Surveys	CD-DIAL - Sociology Extension	BAC
Lucas County	13				13
	Lyon	Rock Rapids	Distance Education Students = 3	Brenton Ctr for Ag Instruction	PWD
	Lyon		Lyon County Auditors	Extension CED	OCOM
	Lyon	Rock Rapids	Kids Club Daycare	ISU Extension	PWD
	Lyon	George	Sudenga Industries Inc	ISUE-CIRAS	TAC
	Lyon	Rock Rapids	Legends Manufacturing Inc.	ISUE-CIRAS	BAC
	Lyon		23 election officials certified	CED	OCOM
	Lyon		Emergency Management Agency	Lyon & Osceola Extension	OCOM
	Lyon	Rock Rapids	Kids Club Daycare	Family Life Staff	PWD
	Lyon		NW Ia Developers Coalition	Lyon & Osceola Extension	BCOM
	Lyon		NW Ia Developers Coalition	Lyon & Osceola Extension	FAC
	Lyon		NW Ia Developers Coalition	Lyon & Osceola Extension	OCOM
	Lyon		Public Health	Lyon Extension	OCOM
	Lyon	Rock Rapids	Lyon Co.	CTRE/CP Tech	PWD
	Lyon	Rock Rapids	Lyon Co. Econ Development	Industry Relations	BCOM
	Lyon		23 election officials certified	Extension CED	OCOM
	Lyon	George	Community of George	ISU Extension	PWD
	Lyon	Rock Rapids	Alpha Omega Publishing	ISU Extension	PWD
	Lyon	Rock Rapids	Rosewood Heights	ISU Extension	PWD
	Lyon	Rock Rapids	Sanford Health Wellness Center	ISU Extension	PWD
Lyon County	19				19
	Madison	St Charles	Distance education student - BRT 501	OBP/ABE (Raman)	PWD
	Madison	Earlham	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Madison	Winterset	Distance Education Students = 4	Brenton Ctr for Ag Instruction	PWD
	Madison	Earlham	LPB	Meat Science Extension	PWD
	Madison	Winterset	Winterset Community School	Agricultural Education and Studies	FAC
	Madison	Winterset	Winterset	Extension CED	PWD
	Madison		County Trustees	Extension CED	TCOM
	Madison		Rural Development Resource Center	Extension CED	FAC
	Madison	Winterset	Madison County SAFE Coalition	Madison County Extension	OCOM

	Madison	Winterset	Madison County Chamber of Commerce	Madison County Extension	BCOM
	Madison	Winterset	Township Trustees/County Supervisors	County Office/Communities Field Specialist	OCOM
	Madison	Winterset	Farm Fresh/Buy Local	County Office	BAC
	Madison	Winterset	Country Haven	ISU Extension	PWD
	Madison	Winterset	Woodmarc Corp	ISUE-CIRAS	TAC
	Madison	St. Charles	Two Saints Winery	Midwest Grape & Wine Industry Institute	BAC
	Madison		Madison County	Extension CED	TCOM
	Madison		Rural Development Resource Center: Grow Iowa Fund; Wallace Fund; Southwest Iowa Coalition	Extension CED	BAC/ TCOM/ FAC/ BCOM
	Madison		Rural Development Summit	Extension CED	FAC
Madison County	18				18
	Mahaska	Oskaloosa	MidAmerican Energy Company	College of Engineering	PWD
	Mahaska	Oskaloosa	Clow Valve Company	IPRT Company Assistance-Materials	TAC
	Mahaska	Eddyville	Ajinomoto	IPRT Company Assistance-Technology Commercialization	TT
	Mahaska	Eddyville	Ajinomoto USA	Agriculture Experiment Station	TAC
	Mahaska	Oskaloosa	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Mahaska	Leighton	Leighton Processd Meats, Inc.	Meat Science Extension	PWD
	Mahaska	New Sharon	LaRue Farm	ISURF	TT
	Mahaska	Oskaloosa	FTE Genetics	ISURF	TT
	Mahaska	Oskaloosa	Crisis Intervention Services, Oskaloosa	Johnson County Extension	PWD
	Mahaska		Mark Moore Farm	Extension/Iowa Beef Center	TAC
	Mahaska	Oskalossa	Stam Greenhouse	ISU Extension	PWD
	Mahaska	Oskaloosa	Great Expectations	ISU Extension	PWD
	Mahaska	Oskaloosa	Spaghetti's	ISU Extension	PWD
	Mahaska	New Sharon	DeJong Manufacturing Inc	ISUE-CIRAS	FAC
	Mahaska	Oskaloosa	City of Oskaloosa	CTRE/CP Tech	PWD
	Mahaska	Oskaloosa	Garden & Associates, Ltd.	CTRE/CP Tech	PWD
	Mahaska	Oskaloosa	Mahaska Co.	CTRE/CP Tech	PWD
	Mahaska	Oskaloosa	Mahaska County Secondary Roads	CTRE/CP Tech	PWD
	Mahaska	Oskaloosa	Mahaska County Agricultural and Rural Development	Industry Relations	BCOM
	Mahaska	Oskaloosa	Moon Valley Vineyards	Midwest Grape & Wine Industry Institute	BAC
	Mahaska	Leighton	Tassel Ridge Winerry	Midwest Grape & Wine Industry Institute	PWD
	Mahaska	Beacon	Verschuure Vineyards	Midwest Grape & Wine Industry Institute	TAC
	Mahaska		Mahaska County tourism	Extension CED	FAC
	Mahaska		United Way of Mahaska County	CD-DIAL - Sociology Extension	OCOM
Mahaska County	24				24
	Marion	Pella	Fleenor Manufacturing	OIPTT	FAC
	Marion	Pella	Pella Corporation	College of Business	FAC
	Marion	Pella	Board of Adjustment	CRP	TCOM
	Marion	Pella	Zoning Administrator	CRP	TCOM
	Marion	Knoxville	Lee McClune, Sorganol Start-up	Center for Physical and Computational Mathematics, IPRT	TAC
	Marion	Pella	Pella Corporation	IPRT Company Assistance-Materials	TAC
	Marion	Pella	Vermeer Manufacturing Company	IPRT Company Assistance-Materials	TAC
	Marion	Pella	Pella Corporation	IPRT Company Assistance-Technology Commercialization	TT
	Marion	Pella	Central College	Families Extension	OCOM
	Marion	Columbia	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Marion	Pleasantville	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Marion	Pella	Distance Education Students = 11	Brenton Ctr for Ag Instruction	PWD
	Marion	Knoxville	Distance Education Students = 6	Brenton Ctr for Ag Instruction	PWD
	Marion	Pella	In't Veld's Meat Market	Meat Science Extension	PWD
	Marion	Melcher	Northcote Meats	Meat Science Extension	PWD
	Marion	Melcher	Northwood Foods	Meat Science Extension	PWD
	Marion	Pella	Pella	ABE	TAC
	Marion	Pella	Pella Corp.	CCUR	FAC, TAC
	Marion	Melcher-Dallas	PSEOA Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Marion	Knoxville	PSEOA Distance Education Students = 3	Brenton Ctr for Ag Instruction	PWD

	Marion	Pella	PSEOA Distance Education Students = 7	Brenton Ctr for Ag Instruction	PWD
	Marion	Pella	Ulrich Meat Market	Meat Science Extension	PWD
	Marion	Pella	Vermeer	ABE	TAC
	Marion	Pella	Vermeer	CCUR	FAC
	Marion	Pella	Pella Corp.	CCUR	FAC, TAC
	Marion	Pella	Vermeer	CCUR	FAC
	Marion	Knoxville	Knoxville	Extension CED	OCOM
	Marion	Pella	Board of Adjustment	Extension CED, CRP Extension	TCOM
	Marion	Pella	Pella	Extension CED	TCOM
	Marion	Pella	Zoning Administrator	Extension CED, CRP Extension	TCOM
	Marion	Knoxville	Turning Point, Knoxville	Johnson County Extension	PWD
	Marion	Knoxville	Vineyard at Red Rock	Midwest Grape & Wine Industry Institute	TAC
	Marion	Pella	Knoxville, Pella - "Fast Trac" program	Marion County Extension	FAC
	Marion	Knoxville	Knoxville, surrounding area - VA Task Force	Marion County Extension	BCOM
	Marion	Knoxville	Marion County - Bioeconomy	Marion County Extension	FAC
	Marion	Knoxville	Enviro Board Corporation	Marion County Extension	BAC
	Marion	Swan	Donna Hansel (Individual Owner)	ISU Extension	PWD
	Marion	Knoxville	VA Central Iowa - Knoxville	ISU Extension	PWD
	Marion	Pella	Ewing Land Development and Services	ISUE-CIRAS	FAC
	Marion	Knoxville	Five Star Industries Inc	ISUE-CIRAS	TAC
	Marion	Pella	Pella Machine Inc	ISUE-CIRAS	BAC
	Marion	Pella	Pella Supply and Metal Fabrication	ISUE-CIRAS	BAC
	Marion	Pella	Pella Art and Graphics	ISUE-CIRAS	BAC
	Marion	Pella	Vermeer Manufacturing Co Inc	ISUE-CIRAS	TAC
	Marion	Knoxville	City of Knoxville	CTRE/CP Tech	PWD
	Marion	Knoxville	Marion Co.	CTRE/CP Tech	PWD
	Marion	Knoxville	Marion County Secondary Roads	CTRE/CP Tech	PWD
	Marion	Pella	LDJ Manufacturing	Industry Relations	TAC
	Marion	Pella	Vermeer Manufacturing	Industry Relations	TAC
	Marion	Pella	Vermeer	OBP	BAC, FAC, TAC
	Marion	Pella	Vermeer	OBP	BAC, FAC, TAC
	Marion	Pella	Vermeer	CCUR	FAC
	Marion	Pella	Pella Corp.	CCUR	FAC, TAC
	Marion	Pella	Central College	ISU Extension	OCOM
	Marion		Marion County Auditors	Extension CED	OCOM
	Marion		Marion County	Extension CED	PWD; TCOM
	Marion		Marion County tourism	Extension CED	FAC
Marion County	57				57
	Marshall	State Center	Eden Natural	OIPTT	BAC
	Marshall	Marshalltown	Fisher Controls	College of Business	FAC
	Marshall	Marshalltown	Lennox Industries	College of Engineering	PWD
	Marshall	Marshalltown	Fisher Controls	College of Engineering	PWD
	Marshall	Marshalltown	Emerson Process Management	College of Engineering	PWD
	Marshall	Marshalltown	TIG Distributing	IPRT Company Assistance-Materials	TAC
	Marshall	Marshalltown	Mechdyne	Virtual Reality Applications Center, IPRT	FAC, TAC
	Marshall	Rhodes	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Marshall	State Center	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Marshall	Marshalltown	Distance Education Students = 3	Brenton Ctr for Ag Instruction	PWD
	Marshall	Marshalltown	JBS Swift and Company	SEU - CDFIN	TAC
	Marshall	Marshalltown	Marshalltown Community College	EEOB - Debinski	OCOM
	Marshall	Marshalltown	PSEOA Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Marshall	Melbourne	Sedlacek Wholesal Meat Co	Meat Science Extension	PWD
	Marshall	State Center	State Center Locker, Inc.	Meat Science Extension	PWD
	Marshall	State Center	Eden Natural Pork	Agricultural Education and Studies	FAC
	Marshall	Marshalltown	JBS Swift and Company	SEU - CDFIN	TAC
	Marshall	Marshalltown	Juvenile Court Services	Extension CED	PWD
	Marshall		Marshall County Auditors	Extension CED	OCOM
	Marshall	Marshalltown	Chamber of Commerce, Ag Task Force	ISU Extension, Marshall	OCOM
	Marshall	Marshalltown	Chamber of Commerce, Intergovernmental Group	ISU Extension, Marshall	OCOM
	Marshall	Marshalltown	Community Service Network Consortium	ISU Extension, Marshall	OCOM
	Marshall	Marshalltown	City of Marshalltown, Parks and Recreation	ISU Extension, Marshall	OCOM
	Marshall	Marshalltown	Child Care Providers, Independent Businesses	ISU Extension, Marshall	PWD
	Marshall	Marshalltown	Marshall County, elections/auditors office	ISU Extension, Marshall	BCOM
	Marshall	Marshalltown	EMBARC, entrepreneurial consortium	ISU Extension, Marshall	BAC
	Marshall	Marshalltown	Fisher Controls	ISU Extension	PWD
	Marshall	Marshalltown	Lighten Up Iowa-Public Health, Many businesses, Hy-Vee	ISU Extension	PWD
	Marshall	Marshalltown	Child Care Providers	ISU Extension	PWD
	Marshall	Marshalltown	Applebee's of Marshalltown	ISU Extension	PWD
	Marshall	Marshalltown	Bonanza	ISU Extension	PWD
	Marshall	Marshalltown	Hardee's	ISU Extension	PWD
	Marshall	Marshalltown	TIG Distributing	ISUE-CIRAS	TAC
	Marshall	Marshalltown	Lennox Manufacturing	ISUE-CIRAS	TAC

	Marshall	Marshalltown	Lennox Manufacturing	ISUE-CIRAS	TAC
	Marshall	Marshalltown	Bruin Manufacturing Co	ISUE-CIRAS	TAC
	Marshall	Marshalltown	Clapsaddle-Garber Associates, Inc.	CTRE/CP Tech	PWD
	Marshall	Marshalltown	Public Works Department	CTRE/CP Tech	PWD
	Marshall	Marshalltown	Consumers Energy	Industry Relations	BCOM
	Marshall	Marshalltown	JBS Swift and Company	SEU - CDFIN	TAC
	Marshall	Gillman	Tama County Township Trustees & Clerks	IDRO	TCOM
	Marshall	Gillman	Tama County Township Trustees & Clerks	Extension CED, IDRO	TCOM
	Marshall		25 entrepreneurs	Extension CED	BAC
	Marshall		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
	Marshall	County	Youth and Shelter Services- Advisory Com	4-H Youth Development	OCOM
	Marshall	County	Marshall County Coaltion for Youth	4-H Youth Development	OCOM
Marshall County	46				46
	Mills	Silver City	Silver City	Landscape Architecture, IDRO	BCOM
	Mills	Glenwood	Glenwood/Mills County Economic Development	College of Engineering	BCOM
	Mills	Glenwood	Brand Hydraulics	College of Engineering	PWD
	Mills	Pacific Junction	Feed Energy Company	Agricultural & Biosystem Engineering - STIR	TAC
	Mills	Hastings	Hastings Foods	Meat Science Extension	PWD
	Mills	Glenwood	Glenwood Community Schools	Agricultural Education and Studies	OCOM
	Mills	Malvern	Malvern	Botanical Center	PWD
	Mills	Silver City	Silver City	Landscape Architecture, IDRO	BCOM
	Mills		Glenwood State Bank	Extension CED	FAC/ BCOM
	Mills		Mills County Farm Bureau	Extension CED	FAC/ BCOM
	Mills		Multi-State Regional Development	Extension CED	FAC
	Mills		Rural Development Resource Center	Extension CED	FAC
	Mills		Southwest Iowa Latino Resource Center	Extension CED	BAC
	Mills	Glenwood	Mills County Community Coalition	Sherry Ford/ Mills Co. Ext.	FAC
	Mills	Glenwood	Glenwood/ Mills County Econ. Dev. Bd.	Sherry Ford/ Mills Co. Ext.	FAC
	Mills	all communities	Volunteer Income Tax Assistance	ISU Extension	OCOM
	Mills		City of Malvern	Extension CED	FAC/ BCOM
	Mills		Glenwood/Mills Co Chamber of Com and Economic Dev Found	Extension CED	FAC/ BCOM
	Mills		Mills County Auditors	Extension CED	OCOM
	Mills		Mills County Board of Supervisors	Extension CED	FAC/ BCOM
	Mills		Nex-Gen Biofuels, Inc.	Extension CED	BAC
	Mills		Renew Rural Iowa	Extension CED	FAC
	Mills		Rural Development Resource Center: Grow Iowa Fund; Wallace Fund; Southwest Iowa Coalition	Extension CED	BAC/ TCOM/ FAC/ BCOM
	Mills		Rural Development Summit	Extension CED	FAC
	Mills		Southwest Iowa Coalition	Extension CED	FAC
Mills County	25				25
	Mitchell	Staceyville	Park Masterplan	Landscape Architecture	BCOM
	Mitchell	Stacyville	Mitchell County Conservation Board	Landscape Architecture IDRO	TCOM
	Mitchell	Osage	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Mitchell	Riceville	Northern Iowa Grain Processors	CCUR	TAC
	Mitchell	Osage	Osage High School	College of Engineering / ABE (PLTW)	OCOM
	Mitchell	Osage	S&S Locker	Meat Science Extension	PWD
	Mitchell	Riceville	Ricevill Community Schools	Agricultural Education and Studies	OCOM
	Mitchell	Riceville	Northern Iowa Grain Processors	CCUR	TAC
	Mitchell	Staceyville	Park Masterplan	Extension CED, Landscape Architecture Extension	BCOM
	Mitchell	Staceyville	Staceyville	Extension CED	TCOM
	Mitchell	Stacyville	Mitchell County Conservation Board	Landscape Architecture Extension, IDRO	TCOM
	Mitchell		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
	Mitchell	Riceville	Northern Iowa Grain Processors , LLC (N.I.G.P.)	ISUE-CIRAS	TAC
	Mitchell	Riceville	Northern Iowa Grain Processors	CCUR	TAC
Mitchell County	14				14
	Monona	Onawa	Board of Administrators	CRP	TCOM
	Monona	Onawa	Monona County Economic Development	College of Engineering	FAC
	Monona	Mapleton	Mapleton	Meat Science Extension	PWD
	Monona	Mapleton	Monona Co 4-H and FFA	Western Research Farm, ISU	OCOM
	Monona	Ute	Monona Co. Pork Producers	Western Research Farm, ISU	PWD
	Monona	Castana	MVAO Comm School	Western Research Farm, ISU	OCOM
	Monona	Mapleton	MVAO Comm School	Western Research Farm, ISU	OCOM
	Monona	Mapleton	Maple Valley Community Schools	Agricultural Education and Studies	OCOM
	Monona	Onawa	Board of Administrators	Extension CED, CRP Extension	TCOM
	Monona	Onawa	Nex-Gen Biofuels, Inc.	Extension CED	BAC
	Monona		Monona County Auditors	Extension CED	OCOM

	Monona		Rural Development Resource Center	Extension CED	FAC
	Monona		Rural Development Summit	Extension CED	FAC
	Monona	Mapleton	MapleValley Community School District	ISU Extension	PWD
	Monona	Onawa	West Monona Community School	ISU Extension	PWD
	Monona	Onawa	McDonald's Restaurant	ISU Extension	PWD
	Monona	Mapleton	Maple Heights Nursing Home	ISU Extension	PWD
	Monona	Onawa	Elmwood Care Center	ISU Extension	PWD
	Monona	Onawa	Loess Hills Biodiesel	ISUE-CIRAS	TAC
	Monona	Onawa	Omaha Nation Construction	ISUE-CIRAS	BAC
	Monona	Onawa	Elmwood Care Center	Families Extension	PWD
	Monona	Mapleton	Maple Heights Nursing Home	Families Extension	PWD
	Monona	Mapleton	Maple Valley School	Monona County Extension	OCOM
	Monona	Mapleton	Mapleton Community Leaders	Monona County Extension/Extension Families	FAC
	Monona	Mapleton	MapleValley Community School District	Families Extension	PWD
	Monona	Onawa	McDonald's Restaurant	Families Extension	PWD
	Monona	Onawa	West Monona Community School	Families Extension	PWD
	Monona	Onawa	West Monona School	Monona County Extension	PWD
	Monona	Onawa	Monona Co.	CTRE/CP Tech	PWD
	Monona		Monona County	Extension CED	OCOM
	Monona		Rural Development Resource Center: Grow Iowa Fund; Wallace Fund; Southwest Iowa Coalition	Extension CED	BAC/ TCOM/ FAC/ BCOM
Monona County	31				31
	Monroe	Eddyville	Cargill Corn Milling	Agriculture Experiment Station	TAC
	Monroe		ADLM Empowerment Board	CD-DIAL - Sociology Extension	OCOM
	Monroe		Monroe County Tourism	Extension CED	FAC
Monroe County	3				3
	Montgomery	Red Oak	City of Red Oak	Bill Drey	BCOM
	Montgomery	Stanton	City of Stanton	Bill Drey	BCOM
	Montgomery	Grant	City of Grant	Bill Drey	BCOM
	Montgomery	Elliott	City of Elliott	Bill Drey	BCOM
	Montgomery	County	Board of supervisors	Bill Drey	BCOM
	Montgomery	Red Oak	Fire Department	Bill Drey	OCOM
	Montgomery	County	Election people	Alan Ladd	PWD
	Montgomery	Red Oak	Minsa	Bill Drey	TCOM
	Montgomery	Red Oak	Red Oak Schools	Bill Drey	TCOM
	Montgomery	Red Oak	Farmers Market	Bill Drey	TCOM
	Montgomery	County	Board of supervisors	Bill Drey	TCOM
	Montgomery	Red Oak	MIDAS Council of Government	CRP	TCOM
	Montgomery	Red Oak	CAI Students	Crop Advisor Institute	PWD
	Montgomery	Villisca	Villisca Community School	Agricultural Education and Studies	FAC
	Montgomery	Red Oak	Agri-Solutions, Inc.	Extension CED	BAC
	Montgomery	Red Oak	Depot Hill Historic District, LLC	Extension CED	BAC
	Montgomery	Red Oak	Grupo Minsa Corporation	Extension CED	TAC
	Montgomery	Red Oak	Healthy Turf Lawn Care	Extension CED	BAC
	Montgomery	Red Oak	MIDAS Council of Government	Extension CED, CRP Extension	TCOM
	Montgomery	Red Oak	Nex-Gen Biofuels, Inc.	Extension CED	BAC
	Montgomery	Red Oak	Nishna Productions	Extension CED	TAC
	Montgomery	Red Oak	Pudgy Pumpkin Patch Gift Shop	Extension CED	BAC
	Montgomery		City of Villisca	Extension CED	FAC/ BCOM
	Montgomery		Emerald Hills Dairy Consortium	Extension CED	BAC
	Montgomery		Oakview Construction	Extension CED	FAC/ BCOM
	Montgomery		Red Oak Chrysler Dodge Jeep	Extension CED	FAC/ BCOM
	Montgomery		Red Oak Industrial Foundation	Extension CED	FAC/ BCOM
	Montgomery		Renew Rural Iowa	Extension CED	FAC
	Montgomery		Southwest Iowa Latino Resource Center	Extension CED	BAC
	Montgomery	all communities	Volunteer Income Tax Assistance	ISU Extension	OCOM
	Montgomery	Elliott	Montgomery Co.	CTRE/CP Tech	PWD
	Montgomery	Red Oak	Neenah Foundry	CTRE/CP Tech	PWD
	Montgomery	Red Oak	City Administrator	CRP	TCOM
	Montgomery	Red Oak	City Administrator	Extension CED, CRP Extension	TCOM
	Montgomery	Red Oak	Red Oak	Extension CED	TCOM
	Montgomery		Agri-solutions	Extension CED	FAC/ BCOM
	Montgomery		City of Red Oak	Extension CED	FAC/ BCOM
	Montgomery		City of Stanton	Extension CED	FAC/ BCOM
	Montgomery		Great Western Bank - Red Oak	Extension CED	FAC/ BCOM
	Montgomery		Great Western Bank - Stanton	Extension CED	FAC/ BCOM
	Montgomery		Houghton State Bank	Extension CED	FAC/ BCOM
	Montgomery		Montgomery Co Development Corp	Extension CED	FAC/ BCOM
	Montgomery		Montgomery County Auditors	Extension CED	OCOM
	Montgomery		Montgomery County Economic Development Corp., Villisca Economic Development Corp.; Red Oak Industrial Foundation	Extension CED	BCOM
	Montgomery		Montgomery County Memorial Hosp	Extension CED	FAC/ BCOM
	Montgomery		Montgomery County Supervisors	Extension CED	FAC/ BCOM
	Montgomery		Multi-State Regional Development	Extension CED	FAC
	Montgomery		Red Oak Chamber of Commerce	Extension CED	FAC/ BCOM
	Montgomery		Regional Foods Working Group	Extension CED	BAC

	Montgomery		Regional Marketing	Extension CED	BCOM
	Montgomery		Rural Development Resource Center	Extension CED	FAC
	Montgomery		Rural Development Resource Center: Grow Iowa Fund; Wallace Fund; Southwest Iowa Coalition	Extension CED	BAC/ TCOM/ FAC/ BCOM
	Montgomery		Rural Development Summit	Extension CED	FAC
	Montgomery		Southwest Iowa Coalition	Extension CED	FAC
Montgomery County	54				54
	Muscatine	Muscatine	Greater Muscatine Chamber of Commerce and Industry	OIPTT	FAC
	Muscatine	Muscatine	Northern Filter Media	OIPTT	FAC
	Muscatine	Muscatine	McKee Button	College of Business	FAC
	Muscatine	Muscatine	Grain Processing Gorporation	College of Engineering	FAC
	Muscatine	Muscatine	Northern Filter Media	College of Engineering	FAC
	Muscatine	Muscatine	Grain Processing Corporation	Center for Catalysis, IPRT	TAC, TT
	Muscatine	Muscatine	Grain Processing Corporation	Center for Sustainable Environmental Technologies, IPRT	FAC
	Muscatine	Muscatine	Tire Environmental Services, Inc.	IPRT Company Assistance-Materials	TAC
	Muscatine	Muscatine	McKee Button Company	IPRT Company Assistance-NDE	TAC
	Muscatine	Muscatine	Tire Environmental Services, Inc.	IPRT Company Assistance-NDE	TAC
	Muscatine	Muscatine	Grain Processing Corporation	IPRT Company Assistance-Technology Commercialization	TT
	Muscatine	Muscatine	HNI Technologies, Inc	IPRT Company Assistance-Technology Commercialization	TT
	Muscatine	Muscatine	Northern Filter Media	IPRT Company Assistance-Technology Commercialization	TT
	Muscatine	West Liberty	CAI Students	Crop Advisor Institute	PWD
	Muscatine	Muscatine	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Muscatine	Muscatine	Grain Processing Corp.	CCUR	FAC, TAC
	Muscatine	Muscatine	HNI	NREM	TAC
	Muscatine	Muscatine	HNI, Corp.	CCUR	TT
	Muscatine	Muscatine	Muscatine Comm H.S.	College of Engineering / ABE (PLTW)	OCOM
	Muscatine	Muscatine	R3 Composites and AgVantage	Chemistry & CCUR	TT
	Muscatine	West Liberty	West Liberty Foods, LLC	Meat Science Extension	PWD
	Muscatine	Muscatine	Muscatine Community School	Agricultural Education and Studies	FAC
	Muscatine	Muscatine	Grain Processing Corp.	CCUR	FAC, TAC
	Muscatine	Muscatine	HNI, Corp.	CCUR	TT
	Muscatine	Muscatine	R3 Composites and AgVantage	Chemistry & CCUR	TT
	Muscatine	Muscatine	Grain Processing Corp.	Nutrition Wellness Research Center	TAC
	Muscatine	West Liberty	Innovative Growers, L.L.C.	ISURF	TT
	Muscatine	West Liberty	Innovative Growers, L.L.C.	ISURF	TT
	Muscatine	West Liberty	Innovative Growers, L.L.C.	ISURF	TT
	Muscatine	West Liberty	Innovative Growers, L.L.C.	ISURF	TT
	Muscatine	Muscatine	Grain Processing Corporation	ISURF	TT
	Muscatine	Muscatine	Grain Processing Corporation	ISURF	TT
	Muscatine	Atalissa	city of Atalissa		FAC/ OCOM
	Muscatine	Muscatine	city of Muscatine	Extension CED	FAC
	Muscatine	Nichols	Nichols	Extension CED	FAC/ OCOM
	Muscatine	Stockton	Durant Community Chest	Extension CED	PWD
	Muscatine	West Liberty	West Liberty	Extension CED	TCOM/ OCOM
	Muscatine	Wilton	Wilton	Extension CED	FAC
	Muscatine		Muscatine County Auditors	Extension CED	OCOM
	Muscatine	Muscatine	John Wunder Law Office, Muscatine	Johnson County Extension	PWD
	Muscatine	Muscatine	Diversity Service Center of Iowa, Muscatine	Johnson County Extension	PWD
	Muscatine	Muscatine	Applebee's	ISU Extension	PWD
	Muscatine	Muscatine	Which Wich	ISU Extension	PWD
	Muscatine	Muscatine	Tire-tech Envirnomental Systems	ISUE-CIRAS	TAC
	Muscatine	Muscatine	McKee Button Co Inc	ISUE-CIRAS	TAC
	Muscatine	Muscatine	Tire-tech Envirnomental Systems	ISUE-CIRAS	BAC
	Muscatine	Muscatine	McKee Button Co Inc	ISUE-CIRAS	BAC
	Muscatine		Event in Muscatine County	ISUE-CIRAS	BAC
	Muscatine	Muscatine	Muscatine Co.	CTRE/CP Tech	PWD
	Muscatine	Muscatine	Muscatine Co. Engineer	CTRE/CP Tech	PWD
	Muscatine	Muscatine	Greater Muscatine Chamber of Commerce & Industry	Industry Relations	BCOM
	Muscatine	Muscatine	Abbott & Associates	Industry Relations	BCOM
	Muscatine	Muscatine	Grain Processing Corp.	Industry Relations	TAC
	Muscatine	Muscatine	Northern Filter Media, Inc.	Industry Relations	TAC
	Muscatine	Muscatine	Grain Processing Corp.	Industry Relations	TAC
	Muscatine	Muscatine	R3 Composites	Industry Relations	TAC
	Muscatine	Muscatine	Grain Processing Corp.	Industry Relations	TAC
	Muscatine	Muscatine	Grain Processing Corporation	OBP	BAC, FAC, TAC
	Muscatine	Muscatine	Grain Processing Corp.	CCUR	FAC, TAC
	Muscatine	Muscatine	HNI, Corp.	CCUR	TT

	Muscatine	Muscatine	R3 Composites and AgVantage	Chemistry & CCUR	TT
	Muscatine		County Local Housing Trust Fund	Extension CED	TCOM
Muscatine County	62				62
	O'Brien	Sheldon	Taco John's	ISU Extension	PWD
	O'Brien	Paullina	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	O'Brien	Sanborn	Distance Education Students = 4	Brenton Ctr for Ag Instruction	PWD
	O'Brien	Sheldon	Sheldon Community School	Agricultural Education and Studies	FAC
	O'Brien	Paullina	Dairy Farmers	Extension CED	BCOM
	O'Brien	Paullina	Paullina	Extension CED	OCOM
	O'Brien		O'Brien County Auditors	Extension CED	OCOM
	O'Brien	Paullina	South O'Brien Comm. School	ISU Extension	PWD
	O'Brien	Primghar	NW IA Health Center/RCF	ISU Extension	PWD
	O'Brien	Sheldon	NW IA Community College	ISU Extension	PWD
	O'Brien	Sheldon	NW IA Health Center	ISU Extension	PWD
	O'Brien	Sheldon	Village NW Limited	ISU Extension	PWD
	O'Brien	Hartley	Community Memorial Health Center	ISU Extension	PWD
	O'Brien	Primghar	Kids Kampus	ISU Extension	PWD
	O'Brien	Sanborn	Kids Express Day Care	ISU Extension	PWD
	O'Brien	Paullina	Tots on Ten Daycare	ISU Extension	PWD
	O'Brien	Sheldon	Kentucky Fried Chicken	ISU Extension	PWD
	O'Brien	Sheldon	Rosenboom Machine and Tool Inc	ISUE-CIRAS	TAC
	O'Brien	Sheldon	Rosenboom Machine and Tool Inc	ISUE-CIRAS	TAC
	O'Brien	Sheldon	Rosenboom Machine and Tool Inc	ISUE-CIRAS	TAC
	O'Brien	Sheldon	Rosenboom Machine and Tool Inc	ISUE-CIRAS	TAC
	O'Brien		24 election officials certified	CED	OCOM
	O'Brien		Emergency Management Agency	Lyon & Osceola Extension	OCOM
	O'Brien	Sheldon	Kentucky Fried Chicken	Families Extension	PWD
	O'Brien	Sanborn	Kids Express Day Care	Family Life Staff	PWD
	O'Brien	Primghar	Kids Kampus	Family Life Staff	PWD
	O'Brien		NW Ia Developers Coalition	Lyon & Osceola Extension	BCOM
	O'Brien		NW Ia Developers Coalition	Lyon & Osceola Extension	FAC
	O'Brien		NW Ia Developers Coalition	Lyon & Osceola Extension	OCOM
	O'Brien	Sheldon	Taco John's	Families Extension	PWD
	O'Brien	Paullina	Tots on Ten Daycare	Family Life Staff	PWD
	O'Brien	Primghar	O'Brien Co.	CTRE/CP Tech	PWD
	O'Brien		24 election officials certified	Extension CED	OCOM
	O'Brien	Paullina	O'Brien County Economic Development	ISU - O'Brien County Extension	FAC
O'Brien County	34				34
	Osceola	Sibley	Commjunity Daycare Center	ISU Extension	PWD
	Osceola	Sibley	Commjunity Daycare Center	Family Life Staff	PWD
	Osceola		27 election officials certified	CED	OCOM
	Osceola		Emergency Management Agency	Lyon & Osceola Extension	OCOM
	Osceola		NW Ia Developers Coalition	Lyon & Osceola Extension	BCOM
	Osceola		NW Ia Developers Coalition	Lyon & Osceola Extension	FAC
	Osceola		NW Ia Developers Coalition	Lyon & Osceola Extension	OCOM
	Osceola		Osceola Farm City Mixer	Osceola Extension	FAC
	Osceola		Public Health	Osceola Extension	OCOM
	Osceola		27 election officials certified	Extension CED	OCOM
	Osceola		Osceola County Auditors	Extension CED	OCOM
Osceola County	11				11
	Page	Shenandoah	City Administrator	CRP	TCOM
	Page	Shenandoah	Shenandoah Chamber and Industry Association	College of Engineering	BCOM
	Page	Clarinda	Clarinda Economic Development Corporation	College of Engineering	BCOM
	Page	Clarinda	NSK-AKS Precision Ball Company	IPRT Company Assistance-NDE	TAC
	Page	Northboro	McCoy Locker	Meat Science Extension	PWD
	Page	Clarinda	Naturally Iowa, LLC	Extension CED	BAC
	Page	Shenandoah	City Administrator	Extension CED, CRP Extension	TCOM
	Page		City of Shenandoah	Extension CED	FAC/ BCOM
	Page		Lisle Corporation	Extension CED	FAC/ BCOM
	Page		Multi-State Regional Development	Extension CED	FAC
	Page		Nishna Productions	Extension CED	TAC
	Page		Page - ISU Extension County Office Marketing Surveys	CD-DIAL - Sociology Extension	BAC
	Page		Southwest Iowa Adolescent Pregnecy Prevention Program	Page County Extension - Youth and GSF	OCOM
	Page		WIC	Page County Extension - GSF	OCOM
	Page		West Central Development	Page County Extension - GSF	OCOM
	Page	Shenandoah	Shenandoah Community School	Page County Extension - Youth	OCOM
	Page	Essex	Essex Community School	Page County Extension - Youth	OCOM
	Page	Clarinda	Clarinda Community School	Page County Extension - Youth	OCOM
	Page	Clarinda	Clarinda Lutheran School	Page County Extension - Youth	OCOM

	Page	College Springs	South Page Community School	Page County Extension - Youth	OCOM
	Page	Clarinda	Lied Center	Page County Extension - Youth	OCOM
	Page		Page County Fair Board	Page County Extension	OCOM
	Page	Clarinda	Grandma's House Day Care	Page County Extension - Youth	OCOM
	Page	Clarinda	Noah's Ark Pre-School	Page County Extension - Youth	OCOM
	Page	Clarinda	Clarinda Community Pre-School	Page County Extension - Youth	OCOM
	Page	Shenandoah	Turnbull Day Care/Pre-School	Page County Extension - Youth	OCOM
	Page	Essex	Essex Day Care/Pre-School	Page County Extension - Youth	OCOM
	Page	College Springs	Happy Hearts Day Care/Pre-School	Page County Extension - Youth	OCOM
	Page	College Springs	South Page Community Pre-School	Page County Extension - Youth	OCOM
	Page	Clarinda	Head Start	Page County Extension - Youth	OCOM
	Page	Shenandoah	Head Start	Page County Extension - Youth	OCOM
	Page	Shenandoah	Hispanic Center	Page County Extension - Youth and GSF	OCOM
	Page	Clarinda	Jump Start	Page County Extension - GSF	OCOM
	Page	all communities	Volunteer Income Tax Assistance	ISU Extension	OCOM
	Page		Event in Page County	ISUE-CIRAS	FAC
	Page	Braddyville	H and H Trailer	ISUE-CIRAS	BAC
	Page	College Springs	Page Co.	CTRE/CP Tech	PWD
	Page		Bank Iowa - Shenandoah	Extension CED	FAC/ BCOM
	Page		City National Bank - Shenandoah	Extension CED	FAC/ BCOM
	Page		Clarinda Economic Development Corp.; Shenandoah Chamber and Industry Association	Extension CED	BCOM
	Page		Page County Farm Bureau	Extension CED	FAC/ BCOM
	Page		Page County State Bank	Extension CED	FAC/ BCOM
	Page		Regional Marketing	Extension CED	BCOM
	Page		Renew Rural Iowa	Extension CED	FAC
	Page		Rural Development Resource Center	Extension CED	FAC
	Page		Rural Development Resource Center: Grow Iowa Fund; Wallace Fund; Southwest Iowa Coalition	Extension CED	BAC/ TCOM/ FAC/ BCOM
	Page		Rural Development Summit	Extension CED	FAC
	Page		Southwest Iowa Coalition	Extension CED	FAC
	Page		Southwest Iowa Latino Resource Center	Extension CED	BAC
Page County	49				49
	Palo Alto	West Bend	eresourceful	OIPTT	BCOM
	Palo Alto	Emmetsburg	Emmetsburg	Landscape Architecture, IDRO	BCOM
	Palo Alto	Emmetsburg	City of Emmetsburg	College of Engineering	BCOM
	Palo Alto	Graettinger	Daybreak Foods	Animal Science-Bregendahl	TAC
	Palo Alto	Graettinger	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Palo Alto	Ruthven	Distance Education Students = 3	Brenton Ctr for Ag Instruction	PWD
	Palo Alto	Ruthven	Ruthven Meat Processing	Meat Science Extension	PWD
	Palo Alto	Emmetsburg	Iowa Lakes Community College	Agricultural Education and Studies	OCOM
	Palo Alto	Emmetsburg	Emmetsburg	Landscape Architecture, IDRO	BCOM
	Palo Alto	Emmetsberg	Iowa Lakes Community College	David Stender	FAC
	Palo Alto	Emmetsberg	Kerber Milling	David Stender	BAC
	Palo Alto	Emmetsburg	Little Learns Child Care Center	ISU Extension	PWD
	Palo Alto	Graettinger	Shaver Manufacturing Co Inc	ISUE-CIRAS	TAC
	Palo Alto	Emmetsburg	Little Learns Child Care Center	Family Life Staff	PWD
	Palo Alto	Emmetsburg	Palo Alto Co.	CTRE/CP Tech	PWD
	Palo Alto		Livestock producers and regulators	Extension CED	TCOM
	Palo Alto		Palo Alto County Auditors	Extension CED	OCOM
Palo Alto County	17				17
	Plymouth	Le Mars	Harker's distribution, Inc,	Meat Science Extension	PWD
	Plymouth	Le Mars	Community of Le Mars	ISU Extension	PWD
	Plymouth	Le Mars	Floyd Valley Hospital	ISU Extension	PWD
	Plymouth	Le Mars	Le Mars Community School	ISU Extension	PWD
	Plymouth	Le Mars	American Bank	ISU Extension	PWD
	Plymouth	Le Mars	Gehlen Catholic High School	ISU Extension	PWD
	Plymouth	Le Mars	Medical Associates	ISU Extension	PWD
	Plymouth	Le Mars	NIPCO	ISU Extension	PWD
	Plymouth	Le Mars	NW REC	ISU Extension	PWD
	Plymouth	Le Mars	Wells Blue Bunny	ISU Extension	PWD
	Plymouth	Remsen	Remsen-Union Comm. School	ISU Extension	PWD
	Plymouth	Akron	Akron Children's Center	ISU Extension	PWD
	Plymouth	Remsen	Great Beginnings Preschool	ISU Extension	PWD
	Plymouth	LeMars	Guardian Angels Preschool	ISU Extension	PWD

	Plymouth	LeMars	LeMars Daycare	ISU Extension	PWD
	Plymouth	LeMars	Prime Living Apartments	ISU Extension	PWD
	Plymouth	Remsen	Mid-Sioux Opportunity	ISU Extension	PWD
	Plymouth	LeMars	Cuisine Connection	ISU Extension	PWD
	Plymouth	LeMars	Arby's Restaurant	ISU Extension	PWD
	Plymouth	LeMars	Taco John's	ISU Extension	PWD
	Plymouth	Merrill	Negron's Mexican Food	ISU Extension	PWD
	Plymouth	LeMars	School Foodservice Association-NW Iowa	ISU Extension	PWD
	Plymouth	Le Mars	Wells' Dairy Inc	ISUE-CIRAS	TAC
	Plymouth		24 election officials certified	CED	OCOM
	Plymouth		8 small businesses	CED (Access eCommerce)	BAC
	Plymouth	Akron	Akron Care Center	Communities Extension	OCOM
	Plymouth	Akron	Akron Children's Center	Family Life Staff	PWD
	Plymouth	Le Mars	American Bank	Communities Extension	OCOM
	Plymouth	Le Mars	Arby's Restaurant	Families Extension	PWD
	Plymouth	Le Mars	Cuisine Connection	Families Extension	PWD
	Plymouth		Emergency Management Agency	Lyon & Osceola Extension	OCOM
	Plymouth	Le Mars	First National Bank	Communities Extension	OCOM
	Plymouth	Le Mars	Good Samaritan Village of Le Mars	Families Extension	OCOM
	Plymouth	Remsen	Great Beginnings Preschool	Family Life Staff	PWD
	Plymouth	LeMars	Guardian Angels Preschool	Family Life Staff	PWD
	Plymouth	LeMars	Harker's Foods	Families Extension	OCOM
	Plymouth	Le Mars	Le Mars Chamber of Commerce	Communities Extension	OCOM
	Plymouth	Le Mars	Le Mars Community School	Families Extension	OCOM
	Plymouth	Le Mars	Le Mars Physical Therapy	Communities Extension	OCOM
	Plymouth	Le Mars	Le Mars Police Dept.	Families Extension	OCOM
	Plymouth	LeMars	LeMars Daycare	Family Life Staff	PWD
	Plymouth	Le Mars	Life Skills Training Center	Families Extension	OCOM
	Plymouth	Le Mars	McClintock Insurance Co.	Communities Extension	OCOM
	Plymouth	Remsen	Mid-Sioux Opportunity	Families Extension	PWD
	Plymouth	Merrill	Negron's Mexican Food	Families Extension	PWD
	Plymouth	Le Mars	NIPCO (Northwest Ia Power Cooperative	Agriculture Extension	FAC
	Plymouth	Le Mars	NIPCO (Northwest Ia Power Cooperative	Families Extension	OCOM
	Plymouth	Le Mars	Northwest Iowa Credit Union	Communities Extension	OCOM
	Plymouth		NW Ia Developers Coalition	Lyon & Osceola Extension	BCOM
	Plymouth		NW Ia Developers Coalition	Lyon & Osceola Extension	FAC
	Plymouth		NW Ia Developers Coalition	Lyon & Osceola Extension	OCOM
	Plymouth	Akron	People's Bank	Communities Extension	OCOM
	Plymouth		Plymouth County Conservation	Communities	FAC
	Plymouth	Le Mars	Plymouth Manor Care Center	Families Extension	OCOM
	Plymouth	Le Mars	Prime Living Apartments	Families Extension	PWD
	Plymouth	Le Mars	Primebank	Communities Extension	OCOM
	Plymouth	Le Mars	School Foodservice Association-NW Iowa	Families Extension	PWD
	Plymouth	Le Mars	Taco John's	Families Extension	PWD
	Plymouth	Le Mars	Williams & Co.	Communities Extension	OCOM
	Plymouth	Le Mars	City of LeMars	CTRE/CP Tech	PWD
	Plymouth	Le Mars	Plymouth Co.	CTRE/CP Tech	PWD
	Plymouth	Le Mars	Schlotfeldt Engineering	CTRE/CP Tech	PWD
	Plymouth		24 election officials certified	Extension CED	OCOM
	Plymouth		8 small businesses	Extension CED	BAC
	Plymouth		Ecumenical Institute	CD-DIAL - Sociology Extension	BAC
	Plymouth		Plymouth County Auditors	Extension CED	OCOM
	Plymouth		Plymouth - ISU Extension County Office Marketing Surveys	CD-DIAL - Sociology Extension	BAC
	Plymouth		Plymouth County	Extension CED	OCOM/ FAC/ TAC
	Plymouth		Plymouth County Conservation	Extension CED	FAC
	Plymouth	Le Mars	City of LeMars - LeMars Wellness Center	Families Extensioin	OCOM
	Plymouth	Le Mars	Curves	Families Extension	OCOM
	Plymouth	Le Mars	Floyd Valley Hospital	Families Extension	OCOM
	Plymouth	Remsen	Mid-Sioux Opportunity	Families Extension	OCOM
	Plymouth	Le Mars	Wells Dairy	Families Extension	OCOM
Plymouth County	74				74
	Pocahontas	Pocahontas	City of Pocahontas	IDRO	BCOM/ TCOM
	Pocahontas	Pocahontas	Fireplace, Inc.	College of Engineering	TAC
	Pocahontas	Pocahontas	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Pocahontas	Gilmore City	Pro Cooperative	Economics, CCUR & others	FAC
	Pocahontas	Gilmore City	Pro Cooperative	Economics, CCUR & others	FAC
	Pocahontas	Palmer	Larry Siefken	ISURF	TT
	Pocahontas	Pocahontas	City of Pocahontas	IDRO	BCOM/ TCOM
	Pocahontas	Laurens	Bobalee Inc	ISUE-CIRAS	TAC
	Pocahontas	Laurens	Pengo	ISUE-CIRAS	TAC
	Pocahontas	Pocahontas	City of Pocahontas	Extension	BCOM
	Pocahontas	Pocahontas	Pocahontas Community Hospital	Extension	OCOM
	Pocahontas	Rolfe	Pocahontas County Dairy Committee	Extension	FAC
	Pocahontas	Countywide	Pocahontas County Dairy Committee	Extension	FAC
	Pocahontas	Countywide	Pocahontas County Foundation	Extension	OCOM
	Pocahontas	Laurens	Positech	ISU Extension	BAC
	Pocahontas	Countywide	Regional Economic Leadership Group	Extension	BCOM

	Pocahontas	Pocahontas	Pocahontas Co.	CTRE/CP Tech	PWD
	Pocahontas	Gilmore City	Pro Cooperative	Economics, CCUR & others	FAC
	Pocahontas		City of Pocahontas	IDRO	BAC
	Pocahontas		City of Pocahontas	IDRO	BAC
	Pocahontas		Livestock producers and regulators	Extension CED	TCOM
	Pocahontas		Pocahontas County Auditors	Extension CED	OCOM
Pocahontas County	22				22
	Polk	Johnston	ChildServe	Extension CED	PWD
	Polk	Johnston	NE Iowa Community Development Conference	Extension CED	FAC
	Polk	Johnston	Planning & Zoning Comm. Member	Extension CED, CRP Extension	TCOM
	Polk	Johnston	Rain & Hail	Extension CED	PWD
	Polk	Johnston	City of Johnston	Extension CED	PWD
	Polk	Des Moines	Association of Iowa Fairs	CEED	FAC
	Polk	Des Moines	Iowa FFA Association	CEED	OCOM
	Polk	Des Moines	Iowa State Fair	CEED, OA, CYC, FS	OCOM
	Polk	Clive	Iowa Pork Producers Association	Veterinary Extension	7, 8
	Polk	Clive	National Pork Board	Veterinary Extension	3, 7, 8
	Polk	Clive	National Pork Producer Council	Veterinary Extension	3, 7, 8
	Polk	Ankeny	Iowa Veterinary Medical Association	Veterinary Extension	5, 7
	Polk	West Des Moines	Hy-Vee	College of Business	BAC
	Polk	Clive	Iowa Digestive Disease Center	IPRT Company Assistance-Technology Commercialization	TT
	Polk	West Des Moines	Dave Nagel Consultant	Extension CED	PWD
	Polk	West Des Moines	unknown	Extension CED	PWD
	Polk	Des Moines	Feed Energy Company	OIPTT	BAC
	Polk	Ankeny	Ag Resources Development Group, LLC	OIPTT	FAC
	Polk	Des Moines	Iowa Department of Economic Development	OIPTT	FAC
	Polk	Urbandale	Mid-Iowa SBDC	OIPTT	BCOM
	Polk	West Des Moines	Iowa Farm Bureau	OIPTT	BCOM
	Polk	West Des Moines	ABC Virtual	OIPTT	BAC
	Polk	Des Moines	McKee, Voorhees & Sease	OIPTT	FAC
	Polk	Ankeny	DMACC	OIPTT	FAC
	Polk	Des Moines	Pardee and Associates	OIPTT	FAC
	Polk	Johnston	Model Technologies	OIPTT	FAC
	Polk	Des Moines	Alliant Energy	OIPTT	FAC
	Polk	Des Moines	Iowa Association of Business and Industry	OIPTT	FAC
	Polk	Des Moines	Agri Industries	College of Business	BAC
	Polk	Des Moines	Stork Twin Cities Testing	College of Business	FAC
	Polk	Des Moines	Eagle Sign Company	College of Business	FAC
	Polk	Des Moines	Translux/Fairplay	College of Business	BAC
	Polk	Des Moines	City of Des Moines/Top Value Initiative	College of Business	FAC
	Polk	Des Moines	Harper Brush	College of Business	FAC
	Polk	Johnston	Pioneer Hybrid International	College of Business	FAC
	Polk	Des Moines	Principal Financial Group -- Document Services	College of Business	FAC
	Polk	Des Moines	Growmark	College of Business	BAC
	Polk	Alleman	City of Alleman	IDRO	BCOM/ TCOM
	Polk	Clive	Clive 3D GIS Training	Landscape Architecture	PWD
	Polk	Des Moines	Iowa Department of Public Health	IDRO	BCOM
	Polk	Des Moines	Mercy Capitol Hospital	Landscape Architecture	BAC
	Polk	Johnston	Administrator	CRP	TCOM
	Polk	Johnston	City Administrator	CRP	TCOM
	Polk	Johnston	City Clerk	CRP	TCOM
	Polk	Johnston	Planning & Zoning	CRP	TCOM
	Polk	Johnston	Zoning Commission	CRP	TCOM
	Polk	Mitchellville	City of Mitchellville	IDRO	BCOM
	Polk	Windsor Heights	Zoning Commission	CRP	TCOM
	Polk	Des Moines	Greater Des Moines Partnership	College of Engineering	FAC
	Polk	Des Moines	Schneckloth Group	College of Engineering	FAC
	Polk	Clive	Fischer Scientific	College of Engineering	FAC
	Polk	Johnston	Pioneer Hi-Bred International	College of Engineering	TAC
	Polk	Urbandale	Iowa Pork Producers	College of Engineering	TAC
	Polk	Des Moines	MidAmerican Energy Company	College of Engineering	TAC
	Polk	West Des Moines	Iowa Farm Bureau	College of Engineering	FAC
	Polk	Des Moines	Clement Claibourne	College of Engineering	PWD
	Polk	Des Moines	Guide One	College of Engineering	PWD
	Polk	West Des Moines	ING	College of Engineering	PWD
	Polk	Altoona	Iowa Interactive	College of Engineering	PWD
	Polk	Des Moines	Kemin Industries	College of Engineering	PWD
	Polk	Clive	Phibred	College of Engineering	PWD
	Polk	Johnston	Pioneer Hi-Bred International	College of Engineering	PWD
	Polk	Ankeny	Principal Financial Group	College of Engineering	PWD
	Polk	Urbandale	ProCAD Desgins	College of Engineering	PWD
	Polk	Ankeny	Snyder and Associates, Inc.	College of Engineering	PWD
	Polk	Altoona	Southeast Polk Community Schools	College of Engineering	PWD
	Polk	Des Moines	United Airlines	College of Engineering	PWD
	Polk	West Des Moines	Hy-Vee, Inc.	College of Engineering	PWD
	Polk	Urbandale	John Deere Credit	College of Engineering	PWD
	Polk	West Des Moines	Life Care Services	College of Engineering	PWD
	Polk	Des Moines	Meredith Corporation	College of Engineering	PWD
	Polk	Des Moines	National Pork Board	College of Engineering	PWD
	Polk	Urbandale	Regulus Group LLC	College of Engineering	PWD
	Polk	Johnston	Syrmel, Inc.	College of Engineering	PWD

	Polk	West Des Moines	Wells Fargo Home Mortgage	College of Engineering	PWD
	Polk	Des Moines	Compressor Controls Corporation	College of Engineering	PWD
	Polk	Ankeny	Iowa Foundation for Medical Care	College of Engineering	PWD
	Polk	Ankeny	John Deere	College of Engineering	PWD
	Polk	Ankeny	Iowa Association of Municipal Utilities	Center for Physical and Computational Mathematics, IPRT	TCOM
	Polk	Des Moines	Iowa Farm Bureau	Center for Sustainable Environmental Technologies, IPRT	FAC
	Polk	Des Moines	CMT, Inc.	IPRT Company Assistance-Materials	TAC
	Polk	Des Moines	Dee Zee, Inc.	IPRT Company Assistance-Materials	TAC
	Polk	Des Moines	Hallett Materials Company	IPRT Company Assistance-Materials	TAC
	Polk	West Des Moines	Ten Square Global, Inc.	IPRT Company Assistance-Materials	TAC
	Polk	Des Moines	John Deere Des Moines Works	IPRT Company Assistance-NDE	TAC
	Polk	Urbandale	John Deere Worldwide Agricultural Equipment Division	IPRT Company Assistance-NDE	TAC
	Polk	West Des Moines	Cellencor, Inc	IPRT Company Assistance-Technology Commercialization	TT
	Polk	Ankeny	Des Moines Area Community College	Midwest Forensics Resource Center, IPRT	OCOM
	Polk	Des Moines	Des Moines Police Department	Midwest Forensics Resource Center, IPRT	PWD
	Polk	Ankeny	Iowa Division of Criminal Investigation Crime Laboratory	Midwest Forensics Resource Center, IPRT	OCOM
	Polk	Ankeny	Iowa Division of Criminal Investigation Crime Laboratory	Midwest Forensics Resource Center, IPRT	PWD
	Polk	Ankeny	Iowa Division of Criminal Investigation, DMACC	Midwest Forensics Resource Center, IPRT	TCOM
	Polk	Des Moines	Principal Financial Group	Virtual Reality Applications Center, IPRT	FAC
	Polk	Des Moines	Wells Fargo	Virtual Reality Applications Center, IPRT	FAC
	Polk	Ankeny	AGS, Inc.	Ag and Biosystems Engineering & CCUR	TAC
	Polk	Ankeny	Ankeny Cold Storage LLC	Meat Science Extension	PWD
	Polk	Des Moines	Brewer Meats, Inc.	Meat Science Extension	PWD
	Polk	Altoona	CAI Students	Crop Advisor Institute	PWD
	Polk	Des Moines	City of Des Moines	NREM	BCOM, OCOM
	Polk	Des Moines	Cummins Central Power	Agricultural & Biosystem Engineering - STIR	TAC
	Polk	Des Moines	DeeZee Manufacturing	Joseph Chen - ABE and CIRAS	TAC
	Polk	Des Moines	Des Moines teachers	Families Extension	PWD
	Polk	Clive	Distance education student - BRT 501	OBP/ABE (Raman)	PWD
	Polk	Alleman	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Polk	Elkhart	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Polk	Mitchellville	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Polk	Ankeny	Distance Education Students = 10	Brenton Ctr for Ag Instruction	PWD
	Polk	West Des Moines	Distance Education Students = 14	Brenton Ctr for Ag Instruction	PWD
	Polk	Clive	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Polk	Polk City	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Polk	Des Moines	Distance Education Students = 28	Brenton Ctr for Ag Instruction	PWD
	Polk	Bondurant	Distance Education Students = 3	Brenton Ctr for Ag Instruction	PWD
	Polk	Grimes	Distance Education Students = 4	Brenton Ctr for Ag Instruction	PWD
	Polk	Altoona	Distance Education Students = 5	Brenton Ctr for Ag Instruction	PWD
	Polk	Johnston	Distance Education Students = 5	Brenton Ctr for Ag Instruction	PWD
	Polk	Urbandale	Distance Education Students = 6	Brenton Ctr for Ag Instruction	PWD
	Polk	Des Moines	FEC Solutions	CCUR	TAC
	Polk	Des Moines	Feed Energy Company	Animal Science-Bregendahl	TAC
	Polk	Des Moines	Feed Energy Company	Agricultural & Biosystem Engineering - STIR	TAC
	Polk	Des Moines	Feed Energy Corp	ABE/IGQI	TAC
	Polk	Johnston	Genetic Enterprises International	CDFIN	TAC

	Polk	Johnston	Genetic Enterprises, Inc. (GEI)	Food Science and Human Nutrition	TAC
	Polk	Des Moines	Graziano Brothers, Inc.	Meat Science Extension	PWD
	Polk	Des Moines	Iowa Athletic Directors Association	Families Extension	PWD
	Polk	Des Moines	Iowa Business Council Biomass Working Group	CCUR	FAC
	Polk	Altoona	Iowa Cold Storage	Meat Science Extension	PWD
	Polk	Des Moines	Iowa Community Ed Association	Families Extension	PWD
	Polk	Johnston	Iowa Corn Promotion Board	CCUR	FAC
	Polk	West Des Moines	Iowa Farm Bureau Federation	Economics & CCUR	TAC
	Polk	Des Moines	Iowa Nursery and Landscape Association	Department of Horticulture	PWD
	Polk	Des Moines	Iowa Pacific Processors	Meat Science Extension	PWD
	Polk	Clive	Iowa Pork Producers Association	US Pork Center of Excellence	TAC
	Polk	West Des Moines	Iowa Pork Producers Association	SEU - CDFIN	FAC
	Polk	Johnston	Iowa Renewable Fuels Association Board	OBP, CCUR & others	FAC
	Polk	Urbandale	Iowa Soybean Association	CCUR and FSHN	FAC
	Polk	Adel	Iowa Spring Manufacturing	Joseph Chen - ABE and CIRAS	TAC
	Polk	Johnston	Johnston High School	College of Engineering / ABE (PLTW)	OCOM
	Polk	Clive	KCQ Foods	SEU - CDFIN	TAC
	Polk	Des Moines	Kemin	Animal Science-Lamont	TAC
	Polk	Des Moines	Kemin	CCUR	FAC
	Polk	Des Moines	Kemin Industries	SEU - CDFIN	TAC
	Polk	Des Moines	Kemin Nutrisurance	Animal Science	TAC
	Polk	Des Moines	Keystone EMC	Joseph Chen - ABE and CIRAS	TAC
	Polk	Des Moines	Mater Builder of Iowa	Agricultural & Biosystem Engineering - STIR	FAC
	Polk	West Des Moines	Newsham Genetics, LC	Animal Science-Dekkers	TAC, PWD
	Polk	Des Moines	Pine Ridge Farms	Meat Science Extension	PWD
	Polk	Johnston	Pioneer	CCUR	FAC
	Polk	Johnston	Pioneer	SEU - CDFIN	TAC
	Polk	Johnston	Pioneer Hi-bred	Animal Science-Dekkers	TAC, PWD
	Polk	Johnston	Pioneer Hi-Breed Inter.	Agricultural & Biosystem Engineering - STIR	TAC
	Polk	Johnston	Pioneer Hybrid	Agron	PWD
	Polk	Ankeny	Proliant	CCUR and FSHN	FAC
	Polk	Pleasant Hill	PSEOA Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Polk	Des Moines	Quality Manufacturing Corporation	Joseph Chen - ABE and CIRAS	TAC
	Polk	Des Moines	Soy Innovations	Meat Science Extension	PWD
	Polk	Des Moines	Soy Innovations International	FSHN	TAC
	Polk	Des Moines	Stork Townsend	Meat Science Extension	PWD
	Polk	Urbandale	The Soyfoods Council	CCUR and FSHN	FAC
	Polk	Des Moines	Iowa FFA Association	Agricultural Education and Studies	OCOM
	Polk	Des Moines	AgrowKnowledge--National Center	Agricultural Education and Studies	OCOM
	Polk	Ankeny	Des Moines Community College	Agricultural Education and Studies	OCOM
	Polk	Des Moines	Iowa State Fair Blue Ribbon Board	Agricultural Education and Studies	FAC
	Polk	West Des Moines	National Pork Board	Agricultural Education and Studies	FAC
	Polk	Des Moines	Southeast Polk Community School	Agricultural Education and Studies	FAC
	Polk	Des Moines	Prairie Meadows Racetrack & Casino	Agricultural Education and Studies	FAC
	Polk	West Des Moines	Iowa Pork Producers	Agricultural Education and Studies	FAC
	Polk	Ankeny	AGS, Inc.	Ag and Biosystems Engineering & CCUR	TAC
	Polk	Ankeny	Proliant	CCUR	FAC
	Polk	Des Moines	FEC Solutions	CCUR	TAC
	Polk	Des Moines	Iowa Business Council Biomass Working Group	CCUR	FAC
	Polk	Des Moines	Kemin	CCUR	FAC
	Polk	Johnston	Iowa Corn Promotion Board	CCUR	FAC
	Polk	Johnston	Iowa Renewable Fuels Association Board	OBP, CCUR & others	FAC
	Polk	Johnston	Pioneer	CCUR	FAC
	Polk	Urbandale	Iowa Soybean Association	CCUR	FAC
	Polk	Urbandale	The Soyfoods Council	CCUR	FAC
	Polk	Urbandale	The Soyfoods Council	CCUR	FAC
	Polk	West Des Moines	Iowa Farm Bureau Federation	Economics & CCUR	TAC
	Polk	Johnston	Genetic Enterprises, Inc. (GEI)	Food Science and Human Nutrition	TAC
	Polk	Clive	KCQ Foods	Sensory Eval. Unit (SEU) - CDFIN	TAC
	Polk	West Des Moines	Iowa Pork Producers Association	SEU - CDFIN	FAC
	Polk	Des Moines	Kemin Industries	SEU - CDFIN	TAC
	Polk	Johnston	Pioneer	SEU - CDFIN	TAC
	Polk	Ankeny	Monsanto mh	ISURF	TT
	Polk	Johnston	Pioneer Hi-Bred International, Inc.	ISURF	TT

	Polk	West Des Moines	Schillinger Seed, Inc.	ISURF	TT
	Polk	Alleman	City of Alleman	IDRO	BCOM/ TCOM
	Polk	Ankeny	Ankeny	Extension CED	TCOM/ OCOM
	Polk	Ankeny	City of Ankeny	Extension CED	TCOM
	Polk	Clive	Clive	Extension CED	TCOM
	Polk	Clive	Clive 3D GIS Training	Extension CED, Landscape Architecture Extension	PWD
	Polk	Des Moines	Immigrant Network of Iowa	Extension CED	OCOM
	Polk	Des Moines	African American Service Providers	Extension CED	TCOM
	Polk	Des Moines	American Legion Auxiliary	Extension CED	PWD
	Polk	Des Moines	Compassion Iowa - Nonprofit Management Academy	Extension CED	PWD
	Polk	Des Moines	Des Moines	Extension CED	FAC/ OCOM/ PWD/ TCOM
	Polk	Des Moines	Des Moines Fire Department	Extension CED	PWD
	Polk	Des Moines	Iowa Department of Public Health	IDRO	BCOM
	Polk	Des Moines	Iowa Homeless Youth Centers	Extension CED	OCOM
	Polk	Des Moines	Iowa Sister States	Extension CED	PWD
	Polk	Des Moines	L.U.N.A.	Extension CED	PWD
	Polk	Des Moines	Latinos Unidos	Extension CED	BAC
	Polk	Des Moines	Lutheran Services In Iowa	Extension CED	PWD
	Polk	Des Moines	Mercy Capitol Hospital	Landscape Architecture Extension	BAC
	Polk	Des Moines	NE Iowa Community Development Conference	Extension CED	FAC
	Polk	Des Moines	Partnership Young Professionals	Extension CED	FAC
	Polk	Des Moines	Polk County Extension	Extension CED	PWD
	Polk	Des Moines	Senior College Greater DM	Extension CED	PWD
	Polk	Des Moines	The Heart Connection Children Cancer Programs	Extension CED	PWD
	Polk	Des Moines	United Way of Central Iowa	CD-DIAL - Sociology Extension	OCOM
	Polk	Des Moines	unknown	Extension CED	PWD
	Polk	Des Moines	Polk County Health Department	Extension CED	PWD
	Polk	Des Moines	David L. Dahlquist Associates, LLC	Extension CED	PWD
	Polk	Johnston	Administrator	Extension CED, CRP Extension	TCOM
	Polk	Johnston	City Administrator	Extension CED, CRP Extension	TCOM
	Polk	Johnston	City Clerk	Extension CED, CRP Extension	TCOM
	Polk	Johnston	Planning & Zoning	Extension CED, CRP Extension	TCOM
	Polk	Johnston	Zoning Commission	Extension CED, CRP Extension	TCOM
	Polk	Mitchellville	City of Mitchellville	IDRO	BCOM
	Polk	Mitchellville	Mitchellville	Extension CED, CRP Extension	TCOM
	Polk	Pleasant Hill	City of Pleasant Hill, IA	CD-DIAL - Sociology Extension	BCOM
	Polk	Pleasant Hill	Iowa Family Policy Center	Extension CED	PWD
	Polk	Pleasant Hill	unknown	Extension CED	PWD
	Polk	Polk City	Polk City	Extension CED	TCOM/ OCOM
	Polk	Windsor Heights	(confidential name)	Extension CED	PWD
	Polk	Windsor Heights	Zoning Commission	Extension CED, CRP Extension	TCOM
	Polk		Iowa Area Development Group	Extension CED	FAC/ BCOM
	Polk		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
	Polk	Des Moines	Department of Veteran's Affairs	4-H Operation: Military Kids	OCOM
	Polk	Des Moines	Iowa School Counselors' Association	4-H Operation: Military Kids	OCOM
	Polk	Urbandale	Iowa Community Empowerment coordinators and contacts	4-H Operation: Military Kids	OCOM
	Polk	Des Moines	The Home Connection, Des Moines	Johnson County Extension	PWD
	Polk	Ankeny	John Deere Ankeny Works	ANR Extension	PWD
	Polk	Des Moines	Iowa Wine Growers Assn	Midwest Grape & Wine Industry Institute	FAC
	Polk	Des Moines	IA Grape & Wine Development Comm.	Midwest Grape & Wine Industry Institute	FAC
	Polk	Des Moines	Farmers Mutual Rain & Hail Insurance	Midwest Grape & Wine Industry Institute	BAC
	Polk	Ankeny	Iowa Alcohol & Beverage Division	Midwest Grape & Wine Industry Institute	FAC
	Polk	Urbandale	Chamber of Commerce	Polk County Extension	BCOM
	Polk	Urbandale	Triple F - Soy Innovations	Polk County Extension	TAC
	Polk	Altoona	City of Altoona	Polk County Extension	TCOM
	Polk	Ankeny	City of Ankeny	Polk County Extension	TCOM
	Polk	Pleasant Hill	City of Pleasant Hill	Polk County Extension	BCOM
	Polk	Windsor Heights	Windsor Heights	ISU Extension	BCOM
	Polk	Des Moines	Rebuilding Together	ISU Extension	OCOM
	Polk	Urbandale	Perwinder Singh (Individual Owner)	ISU Extension	PWD
	Polk	Ankeny	Pam Blume (Individual Owner)	ISU Extension	PWD
	Polk	West Des Moines	ABC on the Go	ISU Extension	PWD
	Polk	Des Moines	Applebee's	ISU Extension	PWD

	Polk	Clive	Applebee's	ISU Extension	PWD
	Polk	West Des Moines	Applebee's	ISU Extension	PWD
	Polk	Des Moines	Burger King	ISU Extension	PWD
	Polk	Des Moines	Centro	ISU Extension	PWD
	Polk	Des Moines	Cold Stone Creamery	ISU Extension	PWD
	Polk	Des Moines	Comfort Suites	ISU Extension	PWD
	Polk	Des Moines	Community Support Advocates	ISU Extension	PWD
	Polk	Des Moines	Consolidated Management Co.	ISU Extension	PWD
	Polk	Altoona	Court Yard Estates	ISU Extension	PWD
	Polk	Ankeny	Culver's of Ankeny	ISU Extension	PWD
	Polk	Des Moines	Culver's of Des Moines	ISU Extension	PWD
	Polk	West Des Moines	Culver's of West Des Moines #2	ISU Extension	PWD
	Polk	Grimes	Dallas Center-Grimes Schools	ISU Extension	PWD
	Polk	Des Moines	Des Moines Marriott Hotel	ISU Extension	PWD
	Polk	Des Moines	Embassy Suites Hotel	ISU Extension	PWD
	Polk	Clive	Entrees Made Easy	ISU Extension	PWD
	Polk	Urbandale	Fogarty Enterprises, LLC	ISU Extension	PWD
	Polk	Bondurant	Geisler Farms	ISU Extension	PWD
	Polk	Altoona	Grandma Max's	ISU Extension	PWD
	Polk	West Des Moines	Huhot Mongolian Grill	ISU Extension	PWD
	Polk	Urbandale	Iowa Machine Shed	ISU Extension	PWD
	Polk	Des Moines	Jimmy's Pizza	ISU Extension	PWD
	Polk	West Des Moines	Joseph's Steakhouse	ISU Extension	PWD
	Polk	Urbandale	Living History Farms	ISU Extension	PWD
	Polk	West Des Moines	Macaroni Grill	ISU Extension	PWD
	Polk	Ankeny	New Horizons Adult Day Center	ISU Extension	PWD
	Polk	Des Moines	Palmer's Deli	ISU Extension	PWD
	Polk	West Des Moines	Panda Express	ISU Extension	PWD
	Polk	Grimes	Pilot Travel Centers	ISU Extension	PWD
	Polk	Des Moines	Polk County Jail	ISU Extension	PWD
	Polk	Des Moines	Polk County Youth Services	ISU Extension	PWD
	Polk	Des Moines	REL LLC	ISU Extension	PWD
	Polk	Runnells	SE Polk Community Schools	ISU Extension	PWD
	Polk	Pleasant Hill	SE Polk Community Schools	ISU Extension	PWD
	Polk	Des Moines	Skip's Inc.	ISU Extension	PWD
	Polk	Des Moines	Spaghettis	ISU Extension	PWD
	Polk	Des Moines	Splash Seafood Bar & Grill	ISU Extension	PWD
	Polk	Des Moines	Taco Bell/QSR	ISU Extension	PWD
	Polk	Johnston	Texas Roadhouse	ISU Extension	PWD
	Polk	Des Moines	The Rose of Des Moines	ISU Extension	PWD
	Polk	West Des Moines	Treat of America Food Services	ISU Extension	PWD
	Polk	West Des Moines	When Pigs Fly	ISU Extension	PWD
	Polk	Des Moines	Windsor Windows	ISU Extension	TAC
	Polk	Des Moines	Pine Ridge Farms	ISUE-CIRAS	TAC
	Polk	Des Moines	SuperFlow Technologies Group	ISUE-CIRAS	TAC
	Polk		Event in Polk County	ISUE-CIRAS	TAC
	Polk	Des Moines	Chem-Tech Ltd	ISUE-CIRAS	TAC
	Polk	Des Moines	SuperFlow Technologies Group	ISUE-CIRAS	TAC
	Polk	Des Moines	Trans-Lux Fair-Play	ISUE-CIRAS	TAC
	Polk	Des Moines	Trans-Lux Fair-Play	ISUE-CIRAS	TAC
	Polk	Des Moines	Hallett Materials	ISUE-CIRAS	TAC
	Polk	Des Moines	Meredith Corp	ISUE-CIRAS	TAC
	Polk	Des Moines	Meredith Corp	ISUE-CIRAS	TAC
	Polk	Des Moines	Trans-Lux Fair-Play	ISUE-CIRAS	TAC
	Polk	Clive	Corrugated Solutions LLC	ISUE-CIRAS	BAC
	Polk		Event in Polk County	ISUE-CIRAS	BAC
	Polk		Event in Polk County	ISUE-CIRAS	FAC
	Polk		Event in Polk County	ISUE-CIRAS	FAC
	Polk		Event in Polk County	ISUE-CIRAS	FAC
	Polk		Event in Polk County	ISUE-CIRAS	FAC
	Polk		Event in Polk County	ISUE-CIRAS	FAC
	Polk		Event in Polk County	ISUE-CIRAS	FAC
	Polk		Event in Polk County	ISUE-CIRAS	FAC
	Polk		Event in Polk County	ISUE-CIRAS	FAC
	Polk		Event in Polk County	ISUE-CIRAS	FAC
	Polk		Event in Polk County	ISUE-CIRAS	FAC
	Polk		Event in Polk County	ISUE-CIRAS	FAC
	Polk	Des Moines	Kurtz Hardware Company	ISUE-CIRAS	BAC
	Polk	Des Moines	Impact Business Printing	ISUE-CIRAS	BAC
	Polk	West Des Moines	MPS Engineers	ISUE-CIRAS	BAC
	Polk	Des Moines	Jermaine's Hauling Services Inc.	ISUE-CIRAS	BAC
	Polk	Des Moines	Job Shops Contractors, Inc.	ISUE-CIRAS	BAC
	Polk	Des Moines	Copy Systems, Inc	ISUE-CIRAS	BAC
	Polk	Ankeny	Polyshield, Inc.	ISUE-CIRAS	BAC
	Polk	Des Moines	HKR	ISUE-CIRAS	BAC
	Polk	Des Moines	Vodaci Technologies	ISUE-CIRAS	BAC
	Polk	Des Moines	Morris Contracting Services, Inc.	ISUE-CIRAS	BAC
	Polk	Des Moines	Academy Roofing and Sheet Metal Company	ISUE-CIRAS	BAC
	Polk	Des Moines	Blackwell Construction, Inc.	ISUE-CIRAS	BAC
	Polk	Des Moines	TC Construction	ISUE-CIRAS	BAC
	Polk	Johnston	Model Technologies	ISUE-CIRAS	BAC
	Polk	Clive	Corrugated Solutions LLC	ISUE-CIRAS	BAC
	Polk	West Des Moines	EmbarkIt, Inc.	ISUE-CIRAS	BAC
	Polk	Des Moines	Capital City Boiler and Machine Works	ISUE-CIRAS	BAC

	Polk	Des Moines	Ron's Horseshoeing	ISUE-CIRAS	BAC
	Polk	Urbandale	Strix Systems, Inc.	ISUE-CIRAS	BAC
	Polk	Des Moines	Dejear Enterprises, LLC	ISUE-CIRAS	BAC
	Polk	West Des Moines	Wolf Construction	ISUE-CIRAS	BAC
	Polk	Des Moines	Storey-Kenworthy Company	ISUE-CIRAS	BAC
	Polk	Johnston	Talent Acquisition Group, LLC	ISUE-CIRAS	BAC
	Polk	Ankeny	AgResources Development Group	ISUE-CIRAS	BAC
	Polk	Des Moines	210 Communications	ISUE-CIRAS	BAC
	Polk	Clive	Diversified Contracting Service	ISUE-CIRAS	BAC
	Polk	Urbandale	L and S Custom Cycles	ISUE-CIRAS	BAC
	Polk	Mitchellville	Royal Delivery	ISUE-CIRAS	BAC
	Polk	Grimes	Premier Concrete Pumping	ISUE-CIRAS	BAC
	Polk	Grimes	Abaci Consulting, Inc.	ISUE-CIRAS	BAC
	Polk	Des Moines	Betty Andrews Media	ISUE-CIRAS	BAC
	Polk	West Des Moines	Rosway Enterprise LLC	ISUE-CIRAS	BAC
	Polk	Clive	Spectrum Prosthetics and Orthotics, Inc.	ISUE-CIRAS	BAC
	Polk	Des Moines	SuperFlow Technologies Group	ISUE-CIRAS	BAC
	Polk	West Des Moines	Goodrich Corp	ISUE-CIRAS	BAC
	Polk		Event in Polk County	ISUE-CIRAS	BAC
	Polk		Event in Polk County	ISUE-CIRAS	BAC
	Polk		Event in Polk County	ISUE-CIRAS	BAC
	Polk		Event in Polk County	ISUE-CIRAS	BAC
	Polk	Des Moines	Trans-Lux Fair-Play	ISUE-CIRAS	TAC
	Polk	Urbandale	Compressor Controls Corp	ISUE-CIRAS	TAC
	Polk	Urbandale	Quality Manufacturing Corp.	ISUE-CIRAS	TAC
	Polk	Clive	Fawn Engineering Corp	ISUE-CIRAS	TAC
	Polk	Des Moines	Firestone Agricultural Tire Co	ISUE-CIRAS	TAC
	Polk	Des Moines	Trans-Lux Fair-Play	ISUE-CIRAS	TAC
	Polk		Event in Polk County	ISUE-CIRAS	TAC
	Polk	Clive	Fawn Engineering Corp	ISUE-CIRAS	TAC
	Polk	Clive	Fawn Engineering Corp	ISUE-CIRAS	TAC
	Polk	Clive	Fawn Engineering Corp	ISUE-CIRAS	TAC
	Polk	Des Moines	Kurtz Hardware Company	ISUE-CIRAS	TAC
	Polk	Ankeny	John Deere and Co Inc	ISUE-CIRAS	TAC
	Polk	Ankeny	John Deere and Co Inc	ISUE-CIRAS	TAC
	Polk	Ankeny	John Deere and Co Inc	ISUE-CIRAS	TAC
	Polk	Des Moines	Trans-Lux Fair-Play	ISUE-CIRAS	TAC
	Polk	Urbandale	Quality Manufacturing Corp.	ISUE-CIRAS	TAC
	Polk	Ankeny	Tone's Spices	ISUE-CIRAS	TAC
	Polk		Event in Polk County	ISUE-CIRAS	TAC
	Polk	Altoona	Altoona City Hall	CTRE/CP Tech	PWD
	Polk	Altoona	City of Altoona	CTRE/CP Tech	PWD
	Polk	Ankeny	Allender Butzke Engineers	CTRE/CP Tech	PWD
	Polk	Ankeny	Assn.	CTRE/CP Tech	PWD
	Polk	Ankeny	BASF Admixtures, Inc.	CTRE/CP Tech	PWD
	Polk	Ankeny	CGA	CTRE/CP Tech	PWD
	Polk	Ankeny	City of Ankeny	CTRE/CP Tech	PWD
	Polk	Ankeny	Clapsaddle-Garber Associates, Inc.	CTRE/CP Tech	PWD
	Polk	Ankeny	Fox Engineering	CTRE/CP Tech	PWD
	Polk	Ankeny	Howard R. Green Co.	CTRE/CP Tech	PWD
	Polk	Ankeny	Iowa Concrete Paving	CTRE/CP Tech	PWD
	Polk	Ankeny	Iowa DOT	CTRE/CP Tech	PWD
	Polk	Ankeny	Iowa Ready Mix Concrete Assn.	CTRE/CP Tech	PWD
	Polk	Ankeny	IRMCA	CTRE/CP Tech	PWD
	Polk	Ankeny	MO/KS Chapter ACPA	CTRE/CP Tech	PWD
	Polk	Ankeny	Ready Mix Concrete Co.	CTRE/CP Tech	PWD
	Polk	Ankeny	S & A	CTRE/CP Tech	PWD
	Polk	Ankeny	Snyder & Associates, Inc.	CTRE/CP Tech	PWD
	Polk	Ankeny	Stanley Consultants	CTRE/CP Tech	PWD
	Polk	Bondurant	City of Bondurant	CTRE/CP Tech	PWD
	Polk	Clive	City of Clive	CTRE/CP Tech	PWD
	Polk	Des Moines	Ahlers and Conney	CTRE/CP Tech	PWD
	Polk	Des Moines	American Concrete	CTRE/CP Tech	PWD
	Polk	Des Moines	BASF Admixtures, Inc.	CTRE/CP Tech	PWD
	Polk	Des Moines	City of Des Moines	CTRE/CP Tech	PWD
	Polk	Des Moines	CMT	CTRE/CP Tech	PWD
	Polk	Des Moines	Des Moines	CTRE/CP Tech	PWD
	Polk	Des Moines	EFCO Corporation	CTRE/CP Tech	PWD
	Polk	Des Moines	Hallett Materials	CTRE/CP Tech	PWD
	Polk	Des Moines	Howard R. Green Co.	CTRE/CP Tech	PWD
	Polk	Des Moines	Iowa DNR	CTRE/CP Tech	PWD
	Polk	Des Moines	Iowa DOT	CTRE/CP Tech	PWD
	Polk	Des Moines	Logan Contractors Supply, Inc.	CTRE/CP Tech	PWD
	Polk	Des Moines	Manatt's	CTRE/CP Tech	PWD
	Polk	Des Moines	McAninch Corp.	CTRE/CP Tech	PWD
	Polk	Des Moines	Nuckolls Concrete Services, Inc	CTRE/CP Tech	PWD
	Polk	Des Moines	Polk County Public Works	CTRE/CP Tech	PWD
	Polk	Des Moines	Structural Consultants P C	CTRE/CP Tech	PWD
	Polk	Des Moines	Team Services	CTRE/CP Tech	PWD
	Polk	Grimes	City of Grimes	CTRE/CP Tech	PWD
	Polk	Grimes	Eco-Tech Construction, LLC	CTRE/CP Tech	PWD
	Polk	Johnston	Agro Globe Engineering	CTRE/CP Tech	PWD
	Polk	Johnston	Allender Butzke Engineers	CTRE/CP Tech	PWD
	Polk	Johnston	City of Johnston	CTRE/CP Tech	PWD

	Polk	Johnston	Manatt's	CTRE/CP Tech	PWD
	Polk	Johnston	McClure Engineering Co.	CTRE/CP Tech	PWD
	Polk	Johnston	Sika Corporation	CTRE/CP Tech	PWD
	Polk	Pleasant Hill	City of Pleasant Hill	CTRE/CP Tech	PWD
	Polk	Urbandale	Allender Butzke Engineers	CTRE/CP Tech	PWD
	Polk	Urbandale	City of Urbandale	CTRE/CP Tech	PWD
	Polk	Urbandale	Concrete Technologies, Inc.	CTRE/CP Tech	PWD
	Polk	Urbandale	Kirkham & Michael	CTRE/CP Tech	PWD
	Polk	Urbandale	Urbandale	CTRE/CP Tech	PWD
	Polk	West Des Moines	Bartlett & West Engineering	CTRE/CP Tech	PWD
	Polk	West Des Moines	Calhoun-Burns & Associates, Inc.	CTRE/CP Tech	PWD
	Polk	West Des Moines	City of West Des Moines	CTRE/CP Tech	PWD
	Polk	West Des Moines	Iowa DOT	CTRE/CP Tech	PWD
	Polk	West Des Moines	Veenstra & Kimm	CTRE/CP Tech	PWD
	Polk	West Des Moines	West Des Moines Public Works	CTRE/CP Tech	PWD
	Polk	Des Moines	Alliant Energy	OBP	BAC, FAC, TAC
	Polk	Des Moines	Equity Dynamics, Inc.: Pappajohn Capital Resources	OBP	BAC, FAC, TAC
	Polk	Des Moines	Iowa Department of Economic Development	OBP	BAC, FAC, TAC
	Polk	Des Moines	Iowa Farm Bureau	OBP	BAC, FAC, TAC
	Polk	Des Moines	Kemin Industries, Inc.	OBP	BAC, FAC, TAC
	Polk	Des Moines	Kemin Industries, Inc.	OBP	BAC, FAC, TAC
	Polk	Des Moines	Kemin Industries, Inc.	OBP	BAC, FAC, TAC
	Polk	Des Moines	Pappajohn Capital Resources Venture Capital	OBP	BAC, FAC, TAC
	Polk	Johnston	Pioneer/DuPont	OBP	BAC, FAC, TAC
	Polk	Johnston	Pioneer/DuPont	OBP	BAC, FAC, TAC
	Polk	Des Moines	IDED	Industry Relations	BCOM
	Polk	Des Moines	Smart Solutions Group	Industry Relations	BCOM
	Polk	Des Moines	Smart Solutions Group	Industry Relations	BCOM
	Polk	Des Moines	IDED	Industry Relations	BCOM
	Polk	Ankeny	DMACC	Industry Relations	BCOM
	Polk	West Des Moines	Iowa Area Development Group	Industry Relations	TAC
	Polk	Johnston	Genetic Enterprises International	Industry Relations	TAC
	Polk	Des Moines	Alliant Energy	OBP	BAC, FAC, TAC
	Polk	Des Moines	Equity Dynamics, Inc.: Pappajohn Capital Resources	OBP	BAC, FAC, TAC
	Polk	Des Moines	Iowa Department of Economic Development	OBP	BAC, FAC, TAC
	Polk	Des Moines	Iowa Farm Bureau	OBP	BAC, FAC, TAC
	Polk	Des Moines	Kemin Industries, Inc.	OBP	BAC, FAC, TAC
	Polk	Des Moines	Kemin Industries, Inc.	OBP	BAC, FAC, TAC
	Polk	Des Moines	Kemin Industries, Inc.	OBP	BAC, FAC, TAC
	Polk	Des Moines	Pappajohn Capital Resources Venture Capital	OBP	BAC, FAC, TAC
	Polk	Johnston	Pioneer/DuPont	OBP	BAC, FAC, TAC
	Polk	Johnston	Pioneer/DuPont	OBP	BAC, FAC, TAC
	Polk	Johnston	Pioneer/DuPont	OBP	BAC, FAC, TAC
	Polk	West Des Moines	Iowa Pork Producers Association	SEU - CDFIN	FAC
	Polk	Ankeny	Proliant	CCUR	FAC
	Polk	Des Moines	Iowa Business Council Biomass Working Group	CCUR	FAC
	Polk	Des Moines	Kemin	CCUR	FAC
	Polk	Johnston	Iowa Corn Promotion Board	CCUR	FAC
	Polk	Johnston	Iowa Renewable Fuels Association Board	OBP, CCUR & others	FAC
	Polk	Johnston	Pioneer	CCUR	FAC
	Polk	Urbandale	Iowa Soybean Association	CCUR	FAC
	Polk	Urbandale	The Soyfoods Council	CCUR	FAC
	Polk	Urbandale	The Soyfoods Council	CCUR	FAC
	Polk	Des Moines	Feed Energy Corp	ABE/IGQI	TAC
	Polk	Johnston	Genetic Enterprises, Inc. (GEI)	Food Science and Human Nu	TAC
	Polk	Johnston	Genetic Enterprises International	CDFIN	TAC
	Polk	Clive	KCQ Foods	SEU - CDFIN	TAC
	Polk	Des Moines	Kemin Industries	SEU - CDFIN	TAC
	Polk	Johnston	Pioneer	SEU - CDFIN	TAC
	Polk	West Des Moines	Iowa Farm Bureau Federation	Economics & CCUR	TAC
	Polk	Ankeny	AGS, Inc.	Ag and Biosystems Engineeri	TAC
	Polk	Des Moines	FEC Solutions	CCUR	TAC
	Polk	Des Moines	Iowa Athletic Directors Association	ISU Extension	PWD
	Polk	Des Moines	Des Moines teachers	ISU Extension	PWD
	Polk	Des Moines	Iowa Community Ed Association	ISU Extension	PWD
	Polk	Des Moines	CVC philanthropy presentation	Greene County Extension	BCOM
	Polk	Ankeny	Deere & Company	Virtual Reality Applications Center, IPRT	BAC, TAC, FAC, PWD
	Polk	Pleasant Hill	Iowa Family Policy Center, Pleasant Hill	Johnson County Extension	PWD
	Polk	Des Moines	Central Iowa Dietetic Association	FSHN	PWD
	Polk		Polk County	Extension CED	TCOM
	Polk	Des Moines	Vounteer Mgt - DMACC	4-H Youth Development	TT
	Polk	Des Moines	Iowa Farm Bureau	Thoreson, Dale Fld Spec ANR	TAC
	Polk	Des Moines	Central Iowa Dietetic Association	Dietetics Internship faculty 4/2	PWD
Polk County	489				489
	Pottawattamie	Carter Lake	Planning & Zoning Board Member	CRP	TCOM
	Pottawattamie	Council Bluffs	Board of Supervisors	CRP	TCOM
	Pottawattamie	Carter Lake	Planning & Zoning Board Member	Extension CED, CRP Extension	TCOM
	Pottawattamie	Council Bluffs	Board of Supervisors	Extension CED, CRP Extension	TCOM
	Pottawattamie	Western Iowa	Home daycare providers	Families	Ocom

	Pottawattamie	Oakland	Community Design Program	Extension CED	PWD
	Pottawattamie		Planning & Zoning Commission	CRP	TCOM
	Pottawattamie		Planning & Zoning Commission	CRP	TCOM
	Pottawattamie		Zoning Board of Adjustment	CRP	TCOM
	Pottawattamie	Council Bluffs	Council bluffs Area Chamber of Commerce	College of Engineering	BCOM
	Pottawattamie	Avoca	Western Iowa Development Association	College of Engineering	BCOM
	Pottawattamie	Council Bluffs	Weyerhaeuser Company	College of Engineering	PWD
	Pottawattamie	Council Bluffs	Omaha Public Power District	College of Engineering	PWD
	Pottawattamie	Council Bluffs	CRC	IPRT Company Assistance-Materials	TAC
	Pottawattamie	Oakland	Iowa Fittings Company	IPRT Company Assistance-NDE	TAC
	Pottawattamie	Council Bluffs	Council Bluffs Police Department	Midwest Forensics Resource Center, IPRT	TCOM
	Pottawattamie	Council Bluffs	Lewis Central High School	College of Engineering / ABE (PLTW)	OCOM
	Pottawattamie	Council Bluffs	Compassion Iowa - Nonprofit Management Academy	Extension CED	PWD
	Pottawattamie	Council Bluffs	Council Bluffs	Extension CED	PWD
	Pottawattamie	Council Bluffs	NPMA-Council Bluffs	Extension CED	PWD
	Pottawattamie	Council Bluffs	Southwest Iowa Renewable Energy	Darrell Busby SW IA Beef Specialist	BAC
	Pottawattamie	all communities	Volunteer Income Tax Assistance	ISU Extension	OCOM
	Pottawattamie	Avoca	Parkway Café	ISU Extension	PWD
	Pottawattamie	Council Bluffs	Red Wheel Fundraising	ISUE-CIRAS	BAC
	Pottawattamie		Event in Pottawattamie County	ISUE-CIRAS	BAC
	Pottawattamie	Council Bluffs	Heartland First Aid Company	ISUE-CIRAS	BAC
	Pottawattamie	Council Bluffs	Broadway Foods	ISUE-CIRAS	BAC
	Pottawattamie	Council Bluffs	Katelman Foundry Inc	ISUE-CIRAS	TAC
	Pottawattamie	Council Bluffs	Katelman Foundry Inc	ISUE-CIRAS	TAC
	Pottawattamie		Event in Pottawattamie County	ISUE-CIRAS	TAC
	Pottawattamie	Council Bluffs	City of Council Bluffs	CTRE/CP Tech	PWD
	Pottawattamie	Council Bluffs	Council Bluffs Public Works	CTRE/CP Tech	PWD
	Pottawattamie	Council Bluffs	Erhardt & Griffin Assoc.	CTRE/CP Tech	PWD
	Pottawattamie	Council Bluffs	HGM Associates, Inc.	CTRE/CP Tech	PWD
	Pottawattamie	Council Bluffs	Iowa DOT	CTRE/CP Tech	PWD
	Pottawattamie	Council Bluffs	Snyder & Associates, Inc.	CTRE/CP Tech	PWD
	Pottawattamie	Council Bluffs	The Schemmer Associates	CTRE/CP Tech	PWD
	Pottawattamie	Harlan	Harlan Builders	CTRE/CP Tech	PWD
	Pottawattamie	Council Bluffs Nonprofit Management Academy		Communities	PWD
	Pottawattamie	Western Iowa	Planning Officials Academy	Communties	PWD
	Pottawattamie		Board of Supervisors	CRP	TCOM
	Pottawattamie		Building Administrator	CRP	TCOM
	Pottawattamie		City Administrator	CRP	TCOM
	Pottawattamie		City Clerk	CRP	TCOM
	Pottawattamie		Community Development Planner	CRP	TCOM
	Pottawattamie		Zoning Board of Adjustment	CRP	TCOM
	Pottawattamie		Board of Supervisors	Extension CED, CRP Extension	TCOM
	Pottawattamie		Building Administrator	Extension CED, CRP Extension	TCOM
	Pottawattamie		City Administrator	Extension CED, CRP Extension	TCOM
	Pottawattamie		City Clerk	Extension CED, CRP Extension	TCOM
	Pottawattamie		Community Development Planner	Extension CED, CRP Extension	TCOM
	Pottawattamie		Multi-State Regional Development	Extension CED	FAC
	Pottawattamie		Nishna Productions	Extension CED	TAC
	Pottawattamie		Planning & Zoning Commission	Extension CED, CRP Extension	TCOM
	Pottawattamie		Planning & Zoning Commission	Extension CED, CRP Extension	TCOM
	Pottawattamie		Pottawattamie County	Extension CED	PWD
	Pottawattamie		Regional Foods Working Group	Extension CED	BAC
	Pottawattamie		Renew Rural Iowa	Extension CED	FAC
	Pottawattamie		Rural Development Resource Center	Extension CED	FAC
	Pottawattamie		Rural Development Resource Center: Grow Iowa Fund; Wallace Fund; Southwest Iowa Coalition	Extension CED	BAC/ TCOM/ FAC/ BCOM
	Pottawattamie		Rural Development Summit	Extension CED	FAC
	Pottawattamie		Southwest Iowa Coalition	Extension CED	FAC
	Pottawattamie		Zoning Board of Adjustment	Extension CED, CRP Extension	TCOM
	Pottawattamie		Zoning Board of Adjustment	Extension CED, CRP Extension	TCOM
Pottawattamie County	64				64
	Pottwattamie	Carter Lake	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Pottwattamie	Council Bluffs	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Pottwattamie	Treynor	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Pottwattamie	Oakland	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD

	Pottwattamie	Underwood	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Pottwattamie	Hancock	Hancock Frozen Foods	Meat Science Extension	PWD
	Pottwattamie	Minden	Minden Meat Market	Meat Science Extension	PWD
	Pottwattamie	Council Bluffs	Plumrose USA, Inc.	Meat Science Extension	PWD
	Pottwattamie	Council Bluffs	Tyson Foods	Meat Science Extension	PWD
Pottwattamie County	9				9
	Poweshiek	Brooklyn	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Poweshiek	Grinnell	Distance Education Students = 3	Brenton Ctr for Ag Instruction	PWD
	Poweshiek	Grinnell	City Clerk/Finance Director	CRP	TCOM
	Poweshiek	Brooklyn	Creative Composites	ABE	TAC
	Poweshiek	Malcolm	Dayton's Meat Processing	Meat Science Extension	PWD
	Poweshiek	Grinnell	JELD-WEN	Joseph Chen - ABE and CIRAS	TAC
	Poweshiek	Grinnell	Schillinger Seed	Organic Ag Program (K. Delate; Agronomy & Horticulture)	TAC
	Poweshiek	Brooklyn	Creative Composites	ISURF	TT
	Poweshiek	Grinnell	City Clerk/Finance Director	Extension CED, CRP Extension	TCOM
	Poweshiek	Grinnell	Grinnell	Extension CED	TCOM
	Poweshiek		25 entrepreneurs	Extension CED	BAC
	Poweshiek		Poweshiek County tourism	Extension CED	FAC
	Poweshiek		Poweshiek County Auditors	Extension CED	OCOM
	Poweshiek		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
	Poweshiek	Montezuma	Poweshiek Leadership Program	4-H Youth Development	OCOM
	Poweshiek	Grinnell	Claude W. and Dolly Ahrens Foundation, Grinnell	Johnson County Extension	PWD
	Poweshiek		Big River Ethanol Plant	Poweshiek County Extension	BCOM & FAC
	Poweshiek		Creative Horizons of Iowa, LLC	Poweshiek County Extension	FAC
	Poweshiek	Grinnell	Dairy Queen - Grinnell	ISU Extension	PWD
	Poweshiek	Grinnell	Randhawa's Travel Center	ISU Extension	PWD
	Poweshiek	Brooklyn	SoyClean	ISUE-CIRAS	TAC
	Poweshiek	Brooklyn	Creative Composites	ISUE-CIRAS	TAC
	Poweshiek		Event in Poweshiek County	ISUE-CIRAS	BAC
	Poweshiek	Brooklyn	SoyClean	ISUE-CIRAS	BAC
	Poweshiek	Montezuma	Brownells Inc	ISUE-CIRAS	BAC
	Poweshiek	Grinnell	ASI Modulex	ISUE-CIRAS	TAC
	Poweshiek	Brooklyn	Manatt's	CTRE/CP Tech	PWD
	Poweshiek	Brooklyn	Creative Composites	Industry Relations	TAC
	Poweshiek		Poweshiek County	Extension CED	OCOM
	Poweshiek		Poweshiek County Healthy Choices Coalit	4-H Youth Development	OCOM
Poweshiek County	30				30
	Ringgold	Shannon City	Distance Education Students = 4	Brenton Ctr for Ag Instruction	PWD
	Ringgold	Diagonal	Ron Abbott Farm	NREM	TAC
	Ringgold		Diagonal Community Development Corporation	Extension CED	FAC/ BCOM
	Ringgold		Ringgold County Board of Supervisors	Extension CED	FAC/ BCOM
	Ringgold		Ringgold County Farm Bureau	Extension CED	FAC/ BCOM
	Ringgold		Rural Development Summit	Extension CED	FAC
	Ringgold		USBank - Mt. Ayr	Extension CED	FAC/ BCOM
	Ringgold	Mt. Ayr	Ringgold County Economic Development	Extension	BCOM
	Ringgold	Mt. Ayr	Ringgold County Economic Development	Extension	FAC
	Ringgold	Mt. Ayr	NRCS Office	Extension	FAC
	Ringgold	Mt. Ayr	Mt. Ayr Chamber of Commerce	Extension	FAC
	Ringgold	Mt. Ayr	Ringgold County Emergency Management	Extension	OCOM
	Ringgold	Mt. Ayr	Mt. Ayr Community Schools	Extension	OCOM
	Ringgold	Mt. Ayr	Ahrens Manufacturing	ISUE-CIRAS	BAC
	Ringgold	Kellerton	JandS Construction Co.	ISUE-CIRAS	BAC
	Ringgold		Emerald Hills Dairy Consortium	Extension CED	BAC
	Ringgold		Great Western Bank - Mount Ayr	Extension CED	FAC/ BCOM
	Ringgold		Multi-State Regional Development	Extension CED	FAC
	Ringgold		Regional Marketing	Extension CED	BCOM
	Ringgold		Renew Rural Iowa	Extension CED	FAC
	Ringgold		Ringgold Co Development Corp	Extension CED	FAC/ BCOM
	Ringgold		Ringgold County	Extension CED	OCOM
	Ringgold		Ringgold County Economic Development; Diagonal Economic Development; Ringgold County Chamber and Tourism	Extension CED	BCOM
	Ringgold		Rural Development Resource Center	Extension CED	FAC
	Ringgold		Rural Development Resource Center: Grow Iowa Fund; Wallace Fund; Southwest Iowa Coalition	Extension CED	BAC/ TCOM/ FAC/ BCOM
	Ringgold		Southwest Iowa Coalition	Extension CED	FAC
Ringgold County	26				26
	Sac	Auburn	Auburn	Landscape Architecture, IDRO	BCOM
	Sac	Lake View	Lake View	Landscape Architecture, IDRO	BCOM
	Sac	Sac City	Board of Adjustments	CRP	TCOM
	Sac	Sac City	Zoning Official	CRP	TCOM

	Sac	Sac City	Sac City	Landscape Architecture, IDRO	BCOM
	Sac	Schaller	Friesen USA	College of Engineering	PWD
	Sac	Lake View	WLVA Community Schools	Agricultural Education and Studies	OCOM
	Sac	Wall Lake	Wall Lake Auburn Communtiy School	Agricultural Education and Studies	FAC
	Sac	Auburn	Auburn	Landscape Architecture, IDRO	BCOM
	Sac	Lake View	Lake View	Landscape Architecture, IDRO	BCOM
	Sac	Sac City	Board of Adjustments	Extension CED, CRP Extension	TCOM
	Sac	Sac City	Sac City	Landscape Architecture, IDRO	BCOM
	Sac	Sac City	Zoning Official	Extension CED, CRP Extension	TCOM
	Sac		Sac County Auditors	Extension CED	OCOM
	Sac	Schaller	enXco (Midamerican Energy)	ISUE-CIRAS	TAC
	Sac	Wall Lake	Cookies Food Products Inc	ISUE-CIRAS	TAC
	Sac	Auburn	Auburn	ISU Extension-Sac County	BCOM
	Sac	Lake View	City of Lake View	ISU Extension-Sac County	BCOM
	Sac	Wall Lake	Cookie's Food Products	ISU Extension-Sac County	FAC
	Sac	Sac City	Divine Purses	ISU Extension-Sac County	BAC
	Sac	Lake View	Golf Products Inc	ISU Extension-Sac County	TAC
	Sac	Sac City	Kitchen Krafters	ISU Extension-Sac County	BAC
	Sac	Lake View	Lake View Concrete Products	ISU Extension-Sac County	BAC
	Sac	Auburn	Ortner Landscaping	ISU Extension-Sac County	BAC
	Sac	Sac City	Sac City	ISU Extension-Sac County	BCOM
	Sac	Sac City	the Beer Bread co	ISU Extension-Sac County	BAC
	Sac	Sac City	the HUB	ISU Extension-Sac County	BAC
	Sac	Lake View	Thistle Down Nursery	ISU Extension-Sac County	FAC
	Sac	Wall Lake	Wall Lake	ISU Extension-Sac County	BCOM
	Sac	Lake View	Wall Lake View Auburn Comm School	ISU Extension-Sac County	OCOM
	Sac		Sac County	Extension CED	TCOM
Sac County	31				31
	Scott	Davenport	Cocoon Corporation	OIPTT	FAC
	Scott	Davenport	New Ventures, Inc.	OIPTT	BCOM
	Scott	Davenport	Eastern Iowa Small Business Development Center	OIPTT	FAC
	Scott	Davenport	Bawden Lareu Public Relations	OIPTT	FAC
	Scott	Bettendorf	Vizient	OIPTT	BAC
	Scott	Davenport	New Composite Partners	OIPTT	FAC
	Scott	Davenport	New Ventures	College of Business	FAC
	Scott	Davenport	Rock Island Arsenal	College of Engineering	PWD
	Scott	Davenport	John Deere	College of Engineering	PWD
	Scott	Davenport	Hansaloy Corporation	IPRT Company Assistance-Materials	TAC
	Scott	Davenport	Hansaloy Corporation	IPRT Company Assistance-NDE	TAC
	Scott	Davenport	John Deere - Davenport Works	IPRT Company Assistance-NDE	TAC
	Scott	Davenport	Sears Manufacturing Company	IPRT Company Assistance-NDE	TAC
	Scott	Davenport	Cocoon Corporation	IPRT Company Assistance-Technology Commercialization	TT
	Scott	Davenport	Grace Engineered Products	IPRT Company Assistance-Technology Commercialization	TT
	Scott	Bettendorf	Bettendorf Police Department	Midwest Forensics Resource Center, IPRT	PWD
	Scott	Davenport	Davenport Police Department	Midwest Forensics Resource Center, IPRT	PWD
	Scott	Quad Cities	Deere	Ag and Biosystems Engineering & CCUR	TAC
	Scott	Bettendorf	Distance education student - BRT 501	OBP/ABE (Raman)	PWD
	Scott	Bettendorf	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Scott	Davenport	Distance Education Students = 5	Brenton Ctr for Ag Instruction	PWD
	Scott	Davenport	Kraft Foods	Meat Science Extension	PWD
	Scott	Quad Cities	Deere	Ag and Biosystems Engineering & CCUR	TAC
	Scott	Bettendorf	Bettendorf Public Library	Extension CED	PWD
	Scott	Bettendorf	Disability Assistance Dogs	Extension CED	PWD
	Scott	Bettendorf	Disability Dogs	Extension CED	PWD
	Scott	Bettendorf	Scott Community College Foundation	Extension CED	PWD
	Scott	Bettendorf	Scott County Family Y	Extension CED	PWD
	Scott	Davenport	Center for Alcohol & Drug Services	Extension CED	PWD
	Scott	Davenport	Community Foundation	Extension CED	PWD
	Scott	Davenport	Davenport, IA	Extension CED	PWD
	Scott	Davenport	Eastern Iowa Community College District	Extension CED	PWD
	Scott	Davenport	Habitat for Humanity Restore	Extension CED	PWD
	Scott	Davenport	Quad Cities Interfaith	Extension CED	PWD

	Scott	Davenport	Quad City Health Initiative	Extension CED	PWD
	Scott	Davenport	Quad City Labyrinth Project	Extension CED	PWD
	Scott	Davenport	WQPT - Quad Cities PBS	Extension CED	PWD
	Scott	LeClaire	LeClaire, IA	Extension CED	PWD
	Scott	Long Grove	Flenker Land Architecture Consultants	Extension CED	PWD
	Scott	Long Grove	Flenker Land Architecture Consultants	Extension CED	PWD
	Scott		Bioeconomy Community Discussion	Director	FAC
	Scott		Terrorism and Hazard Planning	Director	OCOM
	Scott	Davenport	Roosevelt Center/Parks and Rec	Director, families, hort, youth	OCOM
	Scott		Rotary Club - Assistance with Bylaws	Director	OCOM
	Scott	Davenport	Genesis Health System	Extension (Families)	OCOM
	Scott	Davenport	United Way of the QCA	Extension (Families)	OCOM
	Scott	Davenport	Quad City Symphony Orchestra Association, Davenport	Johnson County Extension	PWD
	Scott	Davenport	Family Resources Inc., Davenport	Johnson County Extension	PWD
	Scott	Davenport	City of Davenport, Davenport	Johnson County Extension	PWD
	Scott	Davenport	Vander Veer Botanical Park, Davenport	Johnson County Extension	PWD
	Scott	Davenport	DESD 21st Century Grant, Davenport	Johnson County Extension	PWD
	Scott	Davenport	Quad City Labyrinth Project, Davenport	Johnson County Extension	PWD
	Scott		Nonprofit Management Academy - nonprofit workshops	Director/Communities	PWD
	Scott	Bettendorf	Greenspace Associates	ISU Scott County Extension	PWD
	Scott	Bettendorf	Mississippi Bend AEA	Extension (Youth)	PWD
	Scott	Davenport	Davenport Community School District	Extension (Youth)	PWD
	Scott	Bettendorf	Quad City Times	ISU Scott County Extension	TAC
	Scott	Bettendorf	Teske Garden Center	ISU Scott County Extension	TAC
	Scott	Davenport	Aunt Rhodie's Landscaping	ISU Scott County Extension	TAC
	Scott	Bettendorf	Cribbs Landscaping	ISU Scott County Extension	TAC
	Scott	Bettendorf	Davey Tree Company	ISU Scott County Extension	TAC
	Scott	Donahue	Allens Grove Greenhouse	ISU Scott County Extension	TAC
	Scott	Davenport	Michelle Campbell Landscape Design	ISU Scott County Extension	TAC
	Scott	Bettendorf	Wallace's Garden Center	ISU Scott County Extension	TAC
	Scott	Davenport	Wallace's Garden Center	ISU Scott County Extension	TAC
	Scott	Davenport	The Green Thumbers	ISU Scott County Extension	TAC
	Scott	Bettendorf	Earth Works Landscape Design	ISU Scott County Extension	TAC
	Scott	Davenport	Suburban Landscape Associates	ISU Scott County Extension	TAC
	Scott	Long Grove	Urban Forest	ISU Scott County Extension	TAC
	Scott	Davenport	Scott Carlson Certified Arborist	ISU Scott County Extension	TAC
	Scott	Davenport	Vander Veer Botanical Park	ISU Scott County Extension	TAC
	Scott	Bettendorf	Ace Tree Service	ISU Scott County Extension	TAC
	Scott	Davenport	The Garden Growers	ISU Scott County Extension	TAC
	Scott		Eastern Iowa Hay Producers Association	Extension/Iowa Beef Center	FAC
	Scott	Davenport	Applebee's	ISU Extension	PWD
	Scott	Walcott	Iowa 80 Truckstop	ISU Extension	PWD
	Scott	Davenport	P B Leiner	ISUE-CIRAS	TAC
	Scott	Davenport	Nichols Aluminum	ISUE-CIRAS	TAC
	Scott	Davenport	John Deere Davenport Works	ISUE-CIRAS	TAC
	Scott	Blue Grass	Cast Urethane Technologies	ISUE-CIRAS	TAC
	Scott	Davenport	John Deere Davenport Works	ISUE-CIRAS	TAC
	Scott	Davenport	PCT Inc	ISUE-CIRAS	BAC
	Scott		Event in Scott County	ISUE-CIRAS	BAC
	Scott	Eldridge	Quality Construction Service	ISUE-CIRAS	BAC
	Scott	Pleasant Valley	Environmental Planning Strategies	ISUE-CIRAS	BAC
	Scott	Davenport	Marco Group International	ISUE-CIRAS	BAC
	Scott	Bettendorf	Digital Pathways	ISUE-CIRAS	BAC
	Scott	Davenport	Abrahams Machine Service, Inc.	ISUE-CIRAS	BAC
	Scott	Bettendorf	WIT Inc.	ISUE-CIRAS	BAC
	Scott	Davenport	ESCP Corporation	ISUE-CIRAS	BAC
	Scott		Event in Scott County	ISUE-CIRAS	TAC
	Scott	Eldridge	Olsen Engineering LP	ISUE-CIRAS	TAC
	Scott	Davenport	Sears Manufacturing Co	ISUE-CIRAS	TAC
	Scott		Event in Scott County	ISUE-CIRAS	TAC
	Scott	Bettendorf	Bettendorf	CTRE/CP Tech	PWD
	Scott	Bettendorf	City of Bettendorf	CTRE/CP Tech	PWD

	Scott	Bettendorf	Missman-Stanley Engineering	CTRE/CP Tech	PWD
	Scott	Davenport	City of Davenport	CTRE/CP Tech	PWD
	Scott	Davenport	Iowa DOT	CTRE/CP Tech	PWD
	Scott	Davenport	MSA Professional Services	CTRE/CP Tech	PWD
	Scott	Davenport	Rockwell Automation	OBP	BAC, FAC, TAC
	Scott	Davenport	NewVentures Initiative	Industry Relations	BCOM
	Scott	Davenport	Rockwell Automation	OBP	BAC, FAC, TAC
	Scott	Quad Cities	Deere	Ag and Biosystems Engineeri	TAC
	Scott		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
Scott County	105				105
	Shelby	Harlan	Shelby County Develop Source	College of Engineering	BCOM
	Shelby	Harlan	Jacobs Corporation	IPRT Company Assistance-Materials	TAC
	Shelby	Harlan	Jacobs Corporation	IPRT Company Assistance-NDE	TAC
	Shelby	Harlan	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Shelby	Panama	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Shelby	Earling	Grosses' Locker	Meat Science Extension	PWD
	Shelby	Harlan	Prairie Rose Lamb, subsidiary of Ag Partners	Animal Science-Morrical	TAC
	Shelby	Harlan	Shelby County Cookers	Meat Science Extension	PWD
	Shelby	Harlan	NPMA-Council Bluffs	Extension CED	PWD
	Shelby		Regional Foods Working Group	Extension CED	BAC
	Shelby		Regional Marketing	Extension CED	BCOM
	Shelby		Rural Development Resource Center: Grow Iowa Fund; Wallace Fund; Southwest Iowa Coalition	Extension CED	BAC/ TCOM/ FAC/ BCOM
	Shelby		Shelby County DevelopSource	Extension CED	FAC/ BCOM
	Shelby		Shelby County State Bank	Extension CED	FAC/ BCOM
	Shelby		Southwest Iowa Coalition	Extension CED	FAC
	Shelby	all communities	Volunteer Income Tax Assistance	ISU Extension	OCOM
	Shelby	Elk Horn	World Cal, Inc.	ISUE-CIRAS	BAC
	Shelby	Elk Horn	Liberty Auto Restoration	ISUE-CIRAS	BAC
	Shelby	Defiance	Clean Air Filter Co	ISUE-CIRAS	BAC
	Shelby	Harlan	Conductix	ISUE-CIRAS	TAC
	Shelby	Harlan	Conductix	ISUE-CIRAS	TAC
	Shelby	Harlan	Conductix	ISUE-CIRAS	TAC
	Shelby	Harlan	Conductix	ISUE-CIRAS	TAC
	Shelby	Harlan	Jacobs Corp	ISUE-CIRAS	TAC
	Shelby	Harlan	Shelby Co.	CTRE/CP Tech	PWD
	Shelby		Farmers Trust & Savings Bank	Extension CED	FAC/ BCOM
	Shelby		Multi-State Regional Development	Extension CED	FAC
	Shelby		Renew Rural Iowa	Extension CED	FAC
	Shelby		Shelby County Auditors	Extension CED	OCOM
Shelby County	29				29
	Sioux	Hawarden	City of Hawarden	CRP	BCOM
	Sioux	Orange City	Silent Drive, Inc.	IPRT Company Assistance-Materials	TAC
	Sioux	Sioux Center	Groschopp, Inc.	IPRT Company Assistance-NDE	TAC
	Sioux	Orange City	Quatro Composites	IPRT Company Assistance-NDE	TAC
	Sioux	Orange City	Advance Brands	Meat Science Extension	PWD
	Sioux	Orange City	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Sioux	Sioux Center	Distance Education Students = 6	Brenton Ctr for Ag Instruction	PWD
	Sioux	Sioux Center	Golden Crisp Premium Foods	Meat Science Extension	PWD
	Sioux	Hawarden	Iowa Lamb	Animal Science-Morrical	TAC
	Sioux	Hospers	Premium Iowa Pork, LLC	Meat Science Extension	PWD
	Sioux	Boyden	SIG International	Meat Science Extension	PWD
	Sioux	Orange City	Van Beek Natural Sciences	Food Science & Human Nutrition	TAC/TT
	Sioux	Orange City	Woudstra Meat Market & Lockers	Meat Science Extension	PWD
	Sioux	Sioux Center	Link Manufacturing, Ltd.	ISURF	TT
	Sioux	Hawarden	City of Hawarden	Extension CED, CRP Extension	BCOM
	Sioux		Sioux County Auditors	Extension CED	OCOM
	Sioux	Sioux Center	Dordt College	David Stender	FAC
	Sioux	Boyden	DEMCO	ISU Extension	PWD
	Sioux	Hull	the Foreign Candy Company	ISU Extension	PWD
	Sioux	Orange City	Advance Brands	ISU Extension	PWD
	Sioux	Rock Valley	Hope Haven, Inc	ISU Extension	PWD
	Sioux	Sioux Center	Pella Corporation	ISU Extension	PWD
	Sioux	Sioux Center	Sioux Center Comm. School	ISU Extension	PWD
	Sioux	Sioux Center	Early Childhood Center	ISU Extension	PWD
	Sioux	Orange City	Orange City Day Care	ISU Extension	PWD
	Sioux	Orange City	Covenant Kids Preschool	ISU Extension	PWD
	Sioux	Alton	Crayon Castle	ISU Extension	PWD
	Sioux	Rock Valley	Generations Day care and Peschool	ISU Extension	PWD
	Sioux	Sioux Center	Learning Ship Preschool	ISU Extension	PWD
	Sioux	Granville	Sioux Golf	ISU Extension	PWD
	Sioux	Sioux Center	20 staff members of B-I VetMedica, facing layoff	ISU Extension	PWD
	Sioux	Rock Valley	Rock Industries Inc	ISUE-CIRAS	TAC

	Sioux	Sioux Center	Siouxperior Research	ISUE-CIRAS	BAC
	Sioux	Orange City	Diamond-Vogel Paint	ISUE-CIRAS	BAC
	Sioux	Rock Valley	Valley Machining Co	ISUE-CIRAS	BAC
	Sioux	Boyden	Dethmers Manufacturing Co	ISUE-CIRAS	TAC
	Sioux	Boyden	Dethmers Manufacturing Co	ISUE-CIRAS	TAC
	Sioux	Boyden	Dethmers Manufacturing Co	ISUE-CIRAS	TAC
	Sioux	Boyden	Dethmers Manufacturing Co	ISUE-CIRAS	TAC
	Sioux	Boyden	Dethmers Manufacturing Co	ISUE-CIRAS	TAC
	Sioux	Boyden	Dethmers Manufacturing Co	ISUE-CIRAS	TAC
	Sioux	Hospers	Den Hartog Industries Inc	ISUE-CIRAS	TAC
	Sioux	Rock Valley	Rock Industries Inc	ISUE-CIRAS	TAC
	Sioux	Orange City	Van Beek Natural Science, LLC	ISUE-CIRAS	TAC
	Sioux	Rock Valley	Rock Industries Inc	ISUE-CIRAS	TAC
	Sioux	Boyden	Dethmers Manufacturing Co	ISUE-CIRAS	TAC
	Sioux	Boyden	Dethmers Manufacturing Co	ISUE-CIRAS	TAC
	Sioux	Hospers	Den Hartog Industries Inc	ISUE-CIRAS	TAC
	Sioux	Sioux Center	Nemschoff Chairs	ISUE-CIRAS	TAC
	Sioux	Orange City	Van Beek Natural Science, LLC	ISUE-CIRAS	TAC
	Sioux	Hospers	Den Hartog Industries Inc	ISUE-CIRAS	TAC
	Sioux		40 election officials certified	CED	OCOM
	Sioux	Orange City	City of Orange City (SCORE)	Sioux County Extension	FAC
	Sioux	Rock Valley	City of Rock Valley (SCORE)	Sioux County Extension	FAC
	Sioux	Sioux Center	City of Sioux Center (SCORE)	Sioux County Extension	FAC
	Sioux	Orange City	Covenant Kids Preschool	Family Life Staff	PWD
	Sioux	Alton	Crayon Castle	Family Life Staff	PWD
	Sioux	Sioux Center	Early Childhood Center	Family Life Staff	PWD
	Sioux		Emergency Management Agency	Lyon & Osceola Extension	OCOM
	Sioux	Rock Valley	Generations Day care and Peschool	Family Life Staff	PWD
	Sioux	Sioux Center	Learning Ship Preschool	Family Life Staff	PWD
	Sioux		NW Ia Developers Coalition	Lyon & Osceola Extension	BCOM
	Sioux		NW Ia Developers Coalition	Lyon & Osceola Extension	FAC
	Sioux		NW Ia Developers Coalition	Lyon & Osceola Extension	OCOM
	Sioux	Orange City	Orange City Day Care	Family Life Staff	PWD
	Sioux	Sioux Center	Sioux Center Arts Council (mssion/vision)	Sioux County Extension	BCOM
	Sioux	Orange City	Sioux County STEP (Educational grant)	Sioux County Extension	FAC
	Sioux	Granville	Sioux Golf	Families Extension	PWD
	Sioux	Rock Valley	Tri State Ready Mix	CTRE/CP Tech	PWD
	Sioux	Sioux Center	City of Sioux Center	CTRE/CP Tech	PWD
	Sioux	Sioux Center	Sioux Co.	CTRE/CP Tech	PWD
	Sioux	Orange City	Van Beek Natural Sciences	Food Science & Human Nutri	TAC, TT
	Sioux		40 election officials certified	Extension CED	OCOM
	Sioux	Orange City	Sioux County (Bioeconomy Discussion)	Sioux County Extension	FAC
	Sioux	All Co.Towns	Sioux County employers (Grassley forum)	Sioux County Extension	FAC
	Sioux	All Co.Towns	Sioux County employers (Harkin forum)	Sioux County Extension	FAC
	Sioux		Sioux County	Extension CED	PWD
Sioux County	77				77
	Story	Ames	Boone, Hamilton, and Story Soil and Water Conservation Districts	NREM	TCOM
	Story	Ames	Prarie Rivers RC&D	NREM	TCOM
	Story	Ames	Farm Bureau Summit	Ag	FAC
	Story	Ames	IDNR, IDALS, Soil and Water Conservation Districts	NREM	PWD
	Story	Ames	GlobalVetLink	OIPTT	BAC
	Story	Ames	Sirrah	OIPTT	BAC
	Story	Ames	EndoMetric	OIPTT	BAC
	Story	Ames	Integrated Sensors Technologies, Inc.	OIPTT	BAC
	Story	Ames	BioCrystals	OIPTT	BAC
	Story	Ames	Quality Attributes	OIPTT	BAC
	Story	Ames	Biotronics	OIPTT	FAC
	Story	Ames	Biotronics	OIPTT	BAC
	Story	Ames	NewLink Genetics	OIPTT	FAC
	Story	Ames	MSTRS	OIPTT	FAC
	Story	Ames	Dahl Communications	OIPTT	FAC
	Story	Ames	Stach Design	OIPTT	FAC
	Story	Ames	Clearsighted	OIPTT	BAC
	Story	Ames	BioForce Nanosciences	OIPTT	FAC
	Story	Ames	Aqueterinary Services, PC	OIPTT	BAC
	Story	Ames	PK Biosciences	OIPTT	BAC
	Story	Ames	Story County Construction	OIPTT	FAC
	Story	Ames	Ames Economic Development Commission	OIPTT	FAC
	Story	Ames	EnaGen	OIPTT	FAC
	Story	Ames	ISU Facilities, Planning and Management	College of Business	FAC
	Story	Ames	SMT Construction	College of Business	BAC
	Story	Ames	Etrema	College of Business	BAC
	Story	Nevada	Almaco	College of Business	FAC
	Story	Ames	Ames Lions Club - Built Environment/Health	Landscape Architecture	PWD
	Story	Ames	Fellow Schools Safe Routes to School	Landscape Architecture	BCOM
	Story	Ames	Trails and Physical Activity	Landscape Architecture	BCOM
	Story	Ames	Ames School District	IDRO	OCOM
	Story	Ames	Story County Master Gardeners	IDRO	BCOM
	Story	Gilbert	Gilbert School District	Landscape Architecture	OCOM
	Story	Huxley	Board of Administrators	CRP	TCOM
	Story	Nevada	Story County Planning & Zoning	CRP	PWD/ TCOM

	Story	Slater	Slater	Landscape Architecture, IDRO	BCOM
	Story	Ames	Randall Corporation	College of Engineering	TAC
	Story	Ames	Ames Economic Development Commission	College of Engineering	BCOM
	Story	Ames	Palisades Corporation	College of Engineering	BAC
	Story	Ames	Genisis Biosystems, Inc.	College of Engineering	FAC
	Story	Ames	Intrusol, Inc.	College of Engineering	FAC/TAC
	Story	Ames	Best Energies	College of Engineering	FAC
	Story	Nevada	Coskata	College of Engineering	FAC
	Story	Ames	Frontline Bioenergy, Inc.	College of Engineering	FAC
	Story	Ames	Cmnet Incorporated	College of Engineering	TAC
	Story	Ames	General Atomics	College of Engineering	FAC
	Story	Ames	Intellignostics	College of Engineering	FAC
	Story	Nevada	Iowa Energy Center	College of Engineering	TAC
	Story	Ames	Fisher and Associates	College of Engineering	PWD
	Story	Ames	Mercury Marine	College of Engineering	PWD
	Story	Ames	3M	College of Engineering	PWD
	Story	Ames	Sauer Danfoss	College of Engineering	PWD
	Story	Ames	City of Ames	Center for Physical and Computational Mathematics, IPRT	TCOM
	Story	Ames	Advanced Structural Imaging	Center for Nondestructive Evaluation, IPRT	TAC, TT
	Story	Ames	NDE Technologies	Center for Nondestructive Evaluation, IPRT	TAC, TT
	Story	Ames	Frontline Bioenergy	Center for Sustainable Environmental Technologies, IPRT	FAC
	Story	Ames	Hawkeye Renewable	Center for Sustainable Environmental Technologies, IPRT	FAC
	Story	Ames	Iowa Energy Center	Center for Sustainable Environmental Technologies, IPRT	FAC
	Story	Ames	iPrism	Center for Sustainable Environmental Technologies, IPRT	FAC
	Story	Ames	Ag Leader Technology, Inc.	IPRT Company Assistance-Materials	TAC
	Story	Nevada	ALMACO	IPRT Company Assistance-Materials	TAC
	Story	Story City	American Packaging Corporation	IPRT Company Assistance-Materials	TAC
	Story	Ames	Facilities Planning and Management, ISU	IPRT Company Assistance-Materials	TAC
	Story	Ames	Hach Company	IPRT Company Assistance-Materials	TAC
	Story	Huxley	Kreg Tool Company	IPRT Company Assistance-Materials	TAC
	Story	Nevada	Mid-America Manufacturing, Inc.	IPRT Company Assistance-Materials	TAC
	Story	Ames	Sauer Danfoss Company	IPRT Company Assistance-Materials	TAC
	Story	Ames	Siemens Water Technologies Corp.	IPRT Company Assistance-Materials	TAC
	Story	Story City	American Packaging Corporation	IPRT Company Assistance-NDE	TAC
	Story	Ames	City of Ames	IPRT Company Assistance-NDE	TAC
	Story	Ames	Hach Company	IPRT Company Assistance-NDE	TAC
	Story	Nevada	Mid-America Manufacturing, Inc.	IPRT Company Assistance-NDE	TAC
	Story	Ames	Sauer Danfoss Company	IPRT Company Assistance-NDE	TAC
	Story	Ames	Steve Kartenheuser-Individual	IPRT Company Assistance-NDE	TAC
	Story	Ames	Molecular Express, Inc.	IPRT Company Assistance-Technology Commercialization	TT
	Story	Ames	MSTRS Technologies, Inc.	IPRT Company Assistance-Technology Commercialization	TT
	Story	Ames	PHD Technologies LLC	IPRT Company Assistance-Technology Commercialization	TT
	Story	Ames	Siemens Water Technologies Corporation	IPRT Company Assistance-Technology Commercialization	TT
	Story	Ames	Clearsighted	Virtual Reality Applications Center, IPRT	BAC, TAC, FAC
	Story	Ames	Maxwell Research Corp. (Startup company: Matt Heying, Current PhD student in HCI)	Virtual Reality Applications Center, IPRT	TAC

	Story	Ames	Advanced Analytical Tecnologies	Food Science & Human Nutrition	TAC/FAC/TT
	Story	Story City	American Packaging	Agricultural & Biosystem Engineering - STIR	TAC
	Story	Ames	Ames Community Public Schools	EEOB - Debinski	OCOM
	Story	Ames	BASF	ABE/IGQI	TAC
	Story	Ames	Biobased Industry Outlook Conference	OBP, CCUR & others	PWD, FAC
	Story	Ames	Bioforce Nanosciences	Food Science & Human Nutrition	TAC/FAC/TT
	Story	Ames	Biorenewables Summit	OBP, CCUR & others	FAC
	Story	Ames	BiOva	CCUR	FAC
	Story	Kelley	Blue River Hybrids	Organic Ag Program (K. Delate; Agronomy & Horticulture)	TAC
	Story		Boehringer Ingelhimer Vetmedica	Animal Science	FAC
	Story	Nevada	Burke Corporation	Meat Science Extension	PWD
	Story	Ames	CAI Students	Crop Advisor Institute	PWD
	Story	Ames	City of Ames	NREM	BCOM, OCOM
	Story	Colo	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Story	Gilbert	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Story	Kelley	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Story	Cambridge	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Story	Slater	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Story	Roland	Distance Education Students = 3	Brenton Ctr for Ag Instruction	PWD
	Story	Ames	Distance Education Students = 404	Brenton Ctr for Ag Instruction	PWD
	Story	Story City	Distance Education Students = 5	Brenton Ctr for Ag Instruction	PWD
	Story	Huxley	Distance Education Students = 6	Brenton Ctr for Ag Instruction	PWD
	Story	Nevada	Distance Education Students = 7	Brenton Ctr for Ag Instruction	PWD
	Story	Ames	Enagen, LLC	ABE/IGQI	TAC
	Story	Gilbert	Gilbert Community Schools	Families Extension	OCOM
	Story	Nevada	Heart of Iowa Cooperative	ABE/IGQI	TAC
	Story	Nevada	Heart of Iowa Cooperative	Economics, CCUR & others	FAC
	Story	Ames	Iowa 4-H Round-up	An Sci -- Microbiology Program	OCOM
	Story	Ames	Iowa Dietetic Assoc Annual Meeting	FSHN	FAC
	Story	Ames	Iowa Turf Grass Institute	Horticulture Research Station, ISU	TAC
	Story	Ames	Iowa Turkey Federation	Agricultural & Biosystems Engineering	TAC
	Story	Ames	Iowa Wine Growers Association	Horticulture Research Station, ISU	TAC
	Story	Ames	ISU Alumni - VEISHEA	CCUR	FAC
	Story	Ames	John Deere	OBP (Raman)	FAC
	Story	Huxley	Kreg Tool	Joseph Chen - ABE and CIRAS	TAC
	Story	Nevada	Lincoln Way Energy	ABE	TAC
	Story	Ames	Lincolnway Energy	FSHN & CCUR	TAC
	Story	Nevada	Mid West Pack	Meat Science Extension	PWD
	Story	Nevada	Mid-America Manufacturing	Joseph Chen - ABE and CIRAS	TAC
	Story	Ames	Multiple entities	OBP (Raman)	FAC
	Story	Ames	Power Film Solar	Joseph Chen - ABE and CIRAS	TAC
	Story	Ames	PSEOA Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Story	Nevada	PSEOA Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Story	Ames	Public	Dept. of Horticulture/ISURF - #03056, patent	TT
	Story	Nevada	Purfoods/Mom's Meals	Meat Science Extension	PWD
	Story	Ames	Science Bound Program	An Sci -- Microbiology Program	OCOM
	Story	Ames	Sirrah LLC	Animal Science and VDPAM/Harris Lab	BAC, TAC, TT
	Story	Ames	Summit Green Tiger Investments (startup)	ABE (Raman)	TAC (startup)
	Story	Ames	Vibroacoustics Solutions LLC	CCUR	TT
	Story	Ames	W&G Marketing	Meat Science Extension	PWD
	Story	Ames	Biobased Industry Outlook Conference	OBP, CCUR & others	PWD, FAC
	Story	Ames	Biorenewables Summit	OBP, CCUR & others	FAC
	Story	Ames	BiOva	CCUR	FAC
	Story	Ames	ISU Alumni - VEISHEA	CCUR	FAC
	Story	Ames	Lincolnway Energy	FSHN & CCUR	TAC

	Story	Ames	Vibroacoustics Solutions LLC	CCUR	TT
	Story	Nevada	Heart of Iowa Cooperative	Economics, CCUR & others	FAC
	Story	Ames	CAD	ISURF	TT
	Story	Ames	CAD	ISURF	TT
	Story	Ames	CAD	ISURF	TT
	Story	Ames	CAD	ISURF	TT
	Story	Ames	CAD	ISURF	TT
	Story	Ames	CAD	ISURF	TT
	Story	Ames	CAD	ISURF	TT
	Story	Ames	CAD	ISURF	TT
	Story	Ames	CAD	ISURF	TT
	Story	Ames	CAD	ISURF	TT
	Story	Ames	Iowa Crop Improvement	ISURF	TT
	Story	Huxley	Star Services	ISURF	TT
	Story	Ames	Catilin, Inc.	ISURF	TT
	Story	Ames	Vibroacoustics Solutions, Inc.	ISURF	TT
	Story	Ames	Advanced Analytical Technologies	ISURF	TT
	Story	Ames	Catilin, Inc.	ISURF	TT
	Story	Ames	Osteoceramics, Inc.	ISURF	TT
	Story	Ames	Vibroacoustics Solutions, Inc.	ISURF	TT
	Story	Ames	Integrated Sensor Technolgies, Inc.	ISURF	TT
	Story	Ames	Kyle Horn	ISURF	TT
	Story	Ames	Vibroacoustics Solutions, Inc.	ISURF	TT
	Story	Ames	ACCESS	Extension CED	PWD
	Story	Ames	ACTORS, Inc.	Extension CED	PWD
	Story	Ames	Ames	Extension CED	OCOM/ TCOM/ FAC
	Story	Ames	Ames Lions Club - Built Environment/Health	Extension CED, Landscape Architecture Extension	PWD
	Story	Ames	Ames Park and Recreation	Extension CED	TCOM
	Story	Ames	Ames School District	IDRO	OCOM
	Story	Ames	Arc of Story County	Extension CED	PWD
	Story	Ames	Beyond Welfare	Extension CED	PWD
	Story	Ames	Center for Child Care Resources	Extension CED	PWD
	Story	Ames	Center for Creative Justice	Extension CED	PWD
	Story	Ames	Child Serve	Extension CED	PWD
	Story	Ames	City of Ames, IA	CD-DIAL - Sociology Extension	BCOM
	Story	Ames	Crossroads	Extension CED	PWD
	Story	Ames	Fellow Schools Safe Routes to School	Extension CED, Landscape Architecture Extension	BCOM
	Story	Ames	Iowa Sports Foundation	Extension CED	PWD
	Story	Ames	Iowa Turkey Federation	Extension CED	PWD
	Story	Ames	ISU	Extension CED	PWD
	Story	Ames	ISU Excellence of the Arts & Humanities	Extension CED	PWD
	Story	Ames	ISU Foundation	Extension CED	PWD
	Story	Ames	ISU-CFAH	Extension CED	PWD
	Story	Ames	NAMI-CI	Extension CED	PWD
	Story	Ames	NE Iowa Community Development Conference	Extension CED	FAC
	Story	Ames	People Place	Extension CED	PWD
	Story	Ames	Prairie Rivers RC&D	Extension CED	PWD
	Story	Ames	Richmond Center	Extension CED	PWD
	Story	Ames	Story Co Decat/Empowerment	Extension CED	PWD
	Story	Ames	Story County Master Gardeners	IDRO	BCOM
	Story	Ames	Story county residents LHTF	Extension CED	TCOM
	Story	Ames	Student	Extension CED	PWD
	Story	Ames	The Arc of Story County	Extension CED	PWD
	Story	Ames	The Richmond Center	Extension CED	PWD
	Story	Ames	Trails and Physical Activity	Extension CED, Landscape Architecture Extension	BCOM
	Story	Ames	United Way of Story County	Extension CED	PWD
	Story	Ames	University Community Childcare	Extension CED	PWD
	Story	Ames	Volunteer Center of Story Co	Extension CED	PWD
	Story	Ames	Youth & Shelter Services	Extension CED	PWD
	Story	Ames	YWCA Ames-ISU	Extension CED	PWD
	Story	Cambridge	unknown	Extension CED	PWD
	Story	Gilbert	Gilbert	Extension CED	OCOM
	Story	Gilbert	Gilbert School District	Landscape Architecture Extension	OCOM
	Story	Huxley	Board of Administrators	Extension CED, CRP Extension	TCOM
	Story	Huxley	City of Huxley	Extension CED	TCOM
	Story	McCallsburg	First United Methodist Church	Extension CED	PWD
	Story	Nevada	Beyond Welfare	Extension CED	PWD
	Story	Nevada	ISU Extension	Extension CED	PWD
	Story	Nevada	Nevada Chamber of Commerce	Extension CED	PWD
	Story	Nevada	Story County Extension	Extension CED	PWD
	Story	Nevada	Story County Medical Center	Extension CED	PWD
	Story	Nevada	Story County Planning & Zoning	Extension CED, CRP Extension	PWD/ TCOM

	Story	Roland	Child Serve	Extension CED	PWD
	Story	Slater	Slater	Landscape Architecture, IDRO	BCOM
	Story		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
	Story		Story County	Extension CED	OCOM
	Story		Story County	Extension CED	OCOM/ PWD
	Story	Ames	Iowa State Dairy Associataion	Thoreson, Dale Fld Spec ANR	TAC
	Story	Nevada	HERTZ FARM MANAGEMENT	Story County Extension	FAC
	Story	Nevada	LINCOLNWAY ENERGY	Story County Extension	FAC
	Story	Ames	UNITED WAY OF STORY COUNTY	Story County Communities	FAC
	Story	Ames	HEARTLAND SENIOR SERVICES	Story County Families Unit	PWD
	Story	Ames	NUCARA PHARMACY	Story County Families Unit	PWD
	Story	Ames	AGING RESOURCES OF CENTRAL IA	Story County Families Unit	PWD
	Story	Nevada	COMMUNITY BANK	Story County Extension	FAC, TT
	Story	Nevada	STATE BANK & TRUST	Story County Extension	FAC, TT
	Story	Ames	COMMUNITY FOUNDATION OF STORY	Story County Communities	FAC, PWD
	Story	Roland	HEART OF IOWA COOP	Story County Ag & Natural Resources	FAC, PWD
	Story	Huxley	THREE C'S	Story County Youth	FAC
	Story	Ames	AG INFORMATION CENTER	Story County Ag & Natural Resources	FAC
	Story	Ames	Imran Haq (Individual Owner)	ISU Extension	PWD
	Story	Ames	Cindy Clark (Individual Owner)	ISU Extension	PWD
	Story	Ames	Alpha Delta Pi	ISU Extension	PWD
	Story	Huxley	Ballard Community Schools	ISU Extension	PWD
	Story	Ames	Border's	ISU Extension	PWD
	Story	Huxley	Dairy Queen	ISU Extension	PWD
	Story	Ames	Dairy Queen - Ames	ISU Extension	PWD
	Story	Ames	Panda Express	ISU Extension	PWD
	Story	Ames	The Flying Burrito	ISU Extension	PWD
	Story	Ames	The Rose of Ames	ISU Extension	PWD
	Story	Ames	Grau Construction	ISU Extension	TAC
	Story		Event in Story County	ISUE-CIRAS	FAC
	Story		Event in Story County	ISUE-CIRAS	FAC
	Story	Ames	Center for Crops Utilization Research	ISUE-CIRAS	FAC
	Story		Event in Story County	ISUE-CIRAS	FAC
	Story	Story City	Record Printing Co	ISUE-CIRAS	TAC
	Story	Ames	Engineering Continuing Edcation - SCADA, Substation and Feeder Automation in Electric Utilites Short Course	ISUE-CIRAS	PWD
	Story	Ames	Engineering Continuing Edcation - SCADA, Substation and Feeder Automation in Electric Utilities Short Course	ISUE-CIRAS	PWD
	Story	Ames	Engineering Continuing Edcation - ASCE/ICEA Surveying Conference	ISUE-CIRAS	PWD
	Story	Ames	Engineering Continuing Edcation - ASCE Transportation Conference	ISUE-CIRAS	PWD
	Story	Ames	Engineering Continuing Edcation - Iowa Better Concrete Conference	ISUE-CIRAS	PWD
	Story	Ames	Engineering Continuing Edcation - Greater Iowa Asphalt Conference	ISUE-CIRAS	PWD
	Story	Ames	Engineering Continuing Edcation - 2006 Road Profilers User Group (RPUG) Meeting	ISUE-CIRAS	PWD
	Story	Ames	Engineering Continuing Edcation - Electric Motor Protection Short Course	ISUE-CIRAS	PWD
	Story	Ames	Engineering Continuing Edcation - Iowa County Engineers Conference	ISUE-CIRAS	PWD
	Story	Ames	Engineering Continuing Edcation - Safety Inspection of In Service Bridges - 130055A	ISUE-CIRAS	PWD
	Story	Ames	Engineering Continuing Edcation - ASCE Iowa Section Annual Meeting	ISUE-CIRAS	PWD
	Story	Ames	Engineering Continuing Edcation - Iowa County Engineers Association Midyear Meeting	ISUE-CIRAS	PWD
	Story	Ames	Engineering Continuing Edcation - Electrical Distribution Systems Short Course	ISUE-CIRAS	PWD
	Story	Ames	Engineering Continuing Edcation - ASCE Structural Engineering Conference	ISUE-CIRAS	PWD
	Story	Ames	Engineering Continuing Edcation - Electric Substation Short Course	ISUE-CIRAS	PWD
	Story	Ames	Engineering Continuing Edcation - Special Permitting Rules and Procedures in Iowa	ISUE-CIRAS	PWD
	Story	Ames	Engineering Continuing Edcation - ASCE Geotechnical Conference	ISUE-CIRAS	PWD
	Story	Ames	Engineering Continuing Edcation - 42nd Annual Shallow Exploration Drillers Clinic (SEDC)	ISUE-CIRAS	PWD
	Story	Ames	Engineering Continuing Edcation - NHI Bridge Courses	ISUE-CIRAS	PWD

	Story	Ames	Engineering Continuing Edcation - Midwestern Protective Relay Short Course	ISUE-CIRAS	PWD
	Story	Ames	Engineering Continuing Edcation - Underwater Bridge Inspection NHI Course # 130091	ISUE-CIRAS	PWD
	Story	Ames	Engineering Continuing Edcation - Midwest Concrete Consortium	ISUE-CIRAS	PWD
	Story	Ames	Engineering Continuing Edcation - Midwest Thermodynamics and Statistical Mechanics Conference	ISUE-CIRAS	PWD
	Story	Ames	Engineering Continuing Edcation - Control System Cyber Security: Achieve Compliance and Secure Your Systems	ISUE-CIRAS	PWD
	Story	Ames	Engineering Continuing Edcation - ASCE Environmental and Water Resources Design Conference	ISUE-CIRAS	PWD
	Story	Ames	Engineering Continuing Edcation - SCADA, Substation and Feeder Automation in Electric Utilities Short Course	ISUE-CIRAS	PWD
	Story	Story City	American Packaging Corp	ISUE-CIRAS	TAC
	Story		Event in Story County	ISUE-CIRAS	TAC
	Story		Event in Story County	ISUE-CIRAS	TAC
	Story	Roland	Innovative Lighting Inc	ISUE-CIRAS	TAC
	Story	Nevada	Mid-America Manufacturing Inc	ISUE-CIRAS	TAC
	Story	Huxley	Kreg Tool Co	ISUE-CIRAS	TAC
	Story	Story City	The Box Company	ISUE-CIRAS	TAC
	Story	Ames	Heuss Printing Inc	ISUE-CIRAS	BAC
	Story		Event in Story County	ISUE-CIRAS	FAC
	Story	Ames	Quality Attributes Software, Inc.	ISUE-CIRAS	BAC
	Story	Story City	Record Printing Co	ISUE-CIRAS	BAC
	Story	Story City	Record Printing Co	ISUE-CIRAS	TAC
	Story	Nevada	ALMACO	ISUE-CIRAS	TAC
	Story	Nevada	Burke Marketing Corp	ISUE-CIRAS	TAC
	Story	Story City	American Packaging Corp	ISUE-CIRAS	TAC
	Story	Ames	Becker Underwood Inc	ISUE-CIRAS	TAC
	Story	Ames	Becker Underwood Inc	ISUE-CIRAS	TAC
	Story	Ames	Ames	CTRE/CP Tech	PWD
	Story	Ames	Buena Vista Co.	CTRE/CP Tech	PWD
	Story	Ames	City of Amee	CTRE/CP Tech	PWD
	Story	Ames	City of Clear Lake	CTRE/CP Tech	PWD
	Story	Ames	Clay Co.	CTRE/CP Tech	PWD
	Story	Ames	Fayette Co.	CTRE/CP Tech	PWD
	Story	Ames	FHWA	CTRE/CP Tech	PWD
	Story	Ames	FHWA	CTRE/CP Tech	PWD
	Story	Ames	FHWA-Iowa	CTRE/CP Tech	PWD
	Story	Ames	Fox Engineering	CTRE/CP Tech	PWD
	Story	Ames	Iowa Co.	CTRE/CP Tech	PWD
	Story	Ames	Iowa Concrete Paving	CTRE/CP Tech	PWD
	Story	Ames	Iowa DOT	CTRE/CP Tech	PWD
	Story	Ames	Jackson Co.	CTRE/CP Tech	PWD
	Story	Ames	Linn Co.	CTRE/CP Tech	PWD
	Story	Ames	Marion Co.	CTRE/CP Tech	PWD
	Story	Ames	Michigan CPA	CTRE/CP Tech	PWD
	Story	Ames	Monroe Co.	CTRE/CP Tech	PWD
	Story	Ames	Ready Mix Concrete Co.	CTRE/CP Tech	PWD
	Story	Ames	Rietz Consultants Ltd.	CTRE/CP Tech	PWD
	Story	Ames	Transtec	CTRE/CP Tech	PWD
	Story	Ames	Wayne Co.	CTRE/CP Tech	PWD
	Story	Ames	WHKS & Co.	CTRE/CP Tech	PWD
	Story	Huxley	Huxley	CTRE/CP Tech	PWD
	Story	Huxley	TV-45	CTRE/CP Tech	PWD
	Story	Ames	City of Ames	OBP	BAC, FAC, TAC
	Story	Ames	Frontline BioEnergy	OBP	BAC, FAC, TAC
	Story	Ames	Frontline BioEnergy	OBP	BAC, FAC, TAC
	Story	Ames	Frontline BioEnergy	OBP	BAC, FAC, TAC
	Story	Ames	Ames Economic Development Commission	Industry Relations	BCOM
	Story	Ames	Iowa Workforce Development- Ames Office	Industry Relations	BCOM
	Story	Nevada	Nevada Economic Development Council	Industry Relations	BCOM
	Story	Ames	GlobalVetLink	Industry Relations	BCOM
	Story	Ames	Frontline Bioenergy LLC	Industry Relations	TAC
	Story	Nevada	Lincolnway Energy, LLC	Industry Relations	TAC
	Story	Nevada	Lincolnway Energy, LLC	Industry Relations	TAC
	Story	Nevada	Lincolnway Energy, LLC	Industry Relations	TAC
	Story	Ames	BioForce Nanosciences	Industry Relations	TAC
	Story	Ames	EnSoft Corp	Industry Relations	TAC
	Story	Ames	Infiscape	Industry Relations	TAC
	Story	Ames	Metabolic Technologies	Industry Relations	TAC
	Story	Ames	Glycon	Industry Relations	TAC
	Story	Ames	iSeek	Industry Relations	TAC
	Story	Ames	CombiSep	Industry Relations	TAC
	Story	Nevada	Almaco	Industry Relations	TAC
	Story	Ames	City of Ames	OBP	BAC, FAC, TAC
	Story	Ames	Frontline BioEnergy	OBP	BAC, FAC, TAC
	Story	Ames	Frontline BioEnergy	OBP	BAC, FAC, TAC
	Story	Ames	Frontline BioEnergy	OBP	BAC, FAC, TAC

	Story	Nevada	Lincolnway Energy	OBP	BAC, FAC, TAC
	Story	Ames IA	Iowa Dietetic Assoc Annual Meeting	FSHN faculty included White,	FAC
	Story	Ames	Biorenewables Summit	OBP, CCUR & others	FAC
	Story	Ames	BiOva	CCUR	FAC
	Story	Ames	ISU Alumni - VEISHEA	CCUR	FAC
	Story	Nevada	Heart of Iowa Cooperative	Economics, CCUR & others	FAC
	Story	Ames	Lincolnway Energy	FSHN & CCUR	TAC
	Story	Ames	BASF	ABE/IGQI	TAC
	Story	Ames	Enagen, LLC	ABE/IGQI	TAC
	Story	Nevada	Heart of Iowa Cooperative	ABE/IGQI	TAC
	Story	Ames	Advanced Analytical Tecnologies	Food Science & Human Nutri	TAC, FAC, TT
	Story	Ames	Bioforce Nanosciences	Food Science & Human Nutri	TAC, FAC, TT
	Story	Ames	Vibroacoustics Solutions LLC	CCUR	TT
	Story	Gilbert	Gilbert Community Schools	ISU Extension	OCOM
	Story	Ames	Biobased Industry Outlook Conference	OBP, CCUR & others	PWD, FAC
	Story	Various	Wall Street Journal	ABE/IGQI	FAC
	Story	Ames	AmesBio inc.	Agronomy	TAC
	Story	Gilbert	Gilbert Community Schools	Agricultural Education and Studies	OCOM
	Story	Story City	Roland Story Community Schools	Agricultural Education and Studies	OCOM
	Story	Story City	Roland Story Community Schools	Agricultural Education and Studies	OCOM
	Story	Ames	Iowa Pork Industry Center	Agricultural Education and Studies	FAC
	Story	Ames	WHO AM Radio	Agricultural Education and Studies	FAC
	Story	Gilbert	Gilbert Community School	Agricultural Education and Studies	FAC
	Story	Ames	Iowa Beef Teaching/Research Station	Agricultural Education and Studies	FAC
	Story	Colo	Colo-NESCO Community School	Agricultural Education and Studies	FAC
	Story	Ames	U.S. Pork Center for Excellence	Agricultural Education and Studies	FAC
	Story	Ames	ISU Marketing	Agricultural Education and Studies	FAC
	Story	Ames	Iowa Beef Coucil	Agricultural Education and Studies	FAC
	Story		Story County Auditors	Extension CED	OCOM
	Story		Story - ISU Extension County Office Marketing Surveys	CD-DIAL - Sociology Extension	BAC
	Story		United Community School District	CD-DIAL - Sociology Extension	OCOM
	Story	Ames	Iowa Beef Industry Council - Michelle Baumhover	ISU Extension	TAC
Story County	365				365
	Tama	Buckingham	Tama County Township Trustees & Clerks	IDRO	TCOM
	Tama	Chelsea	Tama County Township Trustees & Clerks	IDRO	TCOM
	Tama	Clutier	Tama County Township Trustees & Clerks	IDRO	TCOM
	Tama	Dysart	Tama County Township Trustees & Clerks	IDRO	TCOM
	Tama	Elberon	Tama County Township Trustees & Clerks	IDRO	TCOM
	Tama	Garwin	Tama County Township Trustees & Clerks	IDRO	TCOM
	Tama	Tama	Tama County Township Trustees & Clerks	IDRO	TCOM
	Tama	Toledo	Tama County Township Trustees & Clerks	IDRO	TCOM
	Tama	Toledo	Toledo	Landscape Architecture, IDRO	BCOM
	Tama	Traer	Tama County Township Trustees & Clerks	IDRO	TCOM
	Tama	Toledo	Tama County Economic Development Corporation	College of Engineering	BCOM
	Tama	Buckingham	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Tama	Toledo	Distance Education Students = 3	Brenton Ctr for Ag Instruction	PWD
	Tama	Dysart	Van"s Locker, Inc.	Meat Science Extension	PWD
	Tama	Buckingham	Tama County Township Trustees & Clerks	Extension CED, IDRO	TCOM
	Tama	Chelsea	Tama County Township Trustees & Clerks	Extension CED, IDRO	TCOM
	Tama	Clutier	Tama County Township Trustees & Clerks	Extension CED, IDRO	TCOM
	Tama	Dysart	Tama County Township Trustees & Clerks	Extension CED, IDRO	TCOM
	Tama	Elberon	Tama County Township Trustees & Clerks	Extension CED, IDRO	TCOM
	Tama	Garwin	Tama County Township Trustees & Clerks	Extension CED, IDRO	TCOM
	Tama	Tama	Tama County Township Trustees & Clerks	Extension CED, IDRO	TCOM
	Tama	Toledo	Tama County Township Trustees & Clerks	Extension CED, IDRO	TCOM
	Tama	Toledo	Toledo	Landscape Architecture, IDRO	BCOM
	Tama	Traer	NE Iowa Community Development Conference	Extension CED	FAC
	Tama	Traer	Tama County Township Trustees & Clerks	Extension CED, IDRO	TCOM
	Tama		Tama County Auditors	Extension CED	OCOM
	Tama	Toledo	Tama Co. Township Trustees Training	Tama County Extension	OCOM
	Tama	Toledo	general public - low income population	ISU Extension	OCOM
	Tama	Toledo	Child Care Providers	ISU Extension	PWD
	Tama	Traer	Traer Manufacturing	ISUE-CIRAS	TAC
	Tama	Tama	Tama Co.	CTRE/CP Tech	PWD
	Tama		25 entrepreneurs	Extension CED	BAC
	Tama		Silos & Smokestacks National Heritage Area	Extension CED	OCOM

	Tama		Tama County	Extension CED	OCOM/ PWD
	Tama	County	Supporting Kids in Prevention	4-H Youth Development	OCOM
Tama County	35				35
	Taylor	Bedford	Bedford Area Economic Development	College of Engineering	FAC
	Taylor	Lenox	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Taylor		Bedford Area Economic Development	Extension CED	FAC/ BCOM
	Taylor		Emerald Hills Dairy Consortium	Extension CED	BAC
	Taylor		Lenox Municipal Utilities	Extension CED	FAC/ BCOM
	Taylor		Rural Development Resource Center: Grow Iowa Fund; Wallace Fund; Southwest Iowa Coalition	Extension CED	BAC/ TCOM/ FAC/ BCOM
	Taylor		Southwest Iowa Coalition	Extension CED	FAC
	Taylor		Southwest Iowa Latino Resource Center	Extension CED	BAC
	Taylor		Taylor County Farm Bureau	Extension CED	FAC/ BCOM
	Taylor	Bedford	Bedford Building Supply	CIRAS	BAC
	Taylor	Bedford	Bedford Area Economic Development	Busines and Industry	BCOM
	Taylor	Lenox	Lenox Economic Development Corporation	Busines and Industry	BCOM
	Taylor	Bedford	Bedford Community	Families - Horizons	FAC
	Taylor	Bedford	Bedford Community School	Youth	OCOM
	Taylor	Clearfield	Clearfield School District	Youth	OCOM
	Taylor	Lenox	Lenox Community School	Youth	OCOM
	Taylor	New Market	New Market School District	Youth	OCOM
	Taylor	Bedford	Taylor County Public Health	Families	OCOM
	Taylor	Bedford	Taylor County Child Care Providers	Families	OCOM
	Taylor	Bedford	Tinker Tots Preschool	Families	OCOM
	Taylor	Lenox	Precious People Preschool	Families	OCOM
	Taylor	all communities	Volunteer Income Tax Assistance	ISU Extension	OCOM
	Taylor		Bedford Area Economic Development; Lenox Economic Dev; Clearfield Economic Development	Extension CED	BCOM
	Taylor		Great Western Bank - Bedford	Extension CED	FAC/ BCOM
	Taylor		Lenox Development Corporation	Extension CED	FAC/ BCOM
	Taylor		Multi-State Regional Development	Extension CED	FAC
	Taylor		Regional Marketing	Extension CED	BCOM
	Taylor		Renew Rural Iowa	Extension CED	FAC
	Taylor		Rural Development Resource Center	Extension CED	FAC
	Taylor		Rural Development Summit	Extension CED	FAC
	Taylor		Union Bank - Lenox, Corning	Extension CED	FAC/ BCOM
Taylor County	31				31
	Union	Creston	Adams Co. Steer Carcass Futurity	External Relations	FAC
	Union	Creston	Southern Iowa Council of Governments	College of Engineering	BCOM
	Union	Creston	Union County Development Corporation	College of Engineering	BCOM
	Union	Creston	Wellman Dynamics	College of Engineering	TAC
	Union	Creston	Bunn-O-Matic Corporation	IPRT Company Assistance-NDE	TAC
	Union	Afton	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Union	Kent	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Union	Lorimor	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Union	Creston	Creston Radio	Agricultural Education and Studies	FAC
	Union	Creston	Ron Dunphy	ISURF	TT
	Union	Creston	Nex-Gen Biofuels, Inc.	Extension CED	BAC
	Union	Creston	Southern Iowa Council of Governments	Extension CED	PWD
	Union		Creston Publishing	Extension CED	FAC/ BCOM
	Union		Kenyon & Nielsen, P.C.	Extension CED	FAC/ BCOM
	Union		Rural Development Resource Center	Extension CED	FAC
	Union		Rural Development Summit	Extension CED	FAC
	Union		Union County	Extension CED	TCOM
	Union	Creston	Creston Community Schools (wrote grant for funding totaling $173,000 for Environmental and Spatial Technology Initiative)	Union County Extension	OCOM
	Union	Creston	McKinley Lake and Park Watershed	Union County Extension	OCOM
	Union	Creston	Divided We Fail issues forum	Greene County Extension	FAC
	Union	Creston	Iowa Tool and Mfg, Inc.	ISUE-CIRAS	BAC
	Union	Creston	Union County Development Association	Industry Relations	BCOM
	Union		Great Western Bank - Creston	Extension CED	FAC/ BCOM
	Union		Multi-State Regional Development	Extension CED	FAC
	Union		Renew Rural Iowa	Extension CED	FAC
	Union		Rural Development Resource Center: Grow Iowa Fund; Wallace Fund; Southwest Iowa Coalition	Extension CED	BAC/ TCOM/ FAC/ BCOM
	Union		Southwest Iowa Coalition	Extension CED	FAC
	Union		Southwestern Community College	Extension CED	FAC/ BCOM
	Union		Union County Auditors	Extension CED	OCOM
	Union		Union - ISU Extension County Office Marketing Surveys	CD-DIAL - Sociology Extension	BAC
	Union		Union County Board of Supervisors	Extension CED	FAC/ BCOM
Union County	31				31
	Van Buren	Bonaparte	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Van Buren	Keosauqua	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD

	Van Buren		Van Buren County tourism	Extension CED	FAC
	Van Buren	Keosauqua	Johnston Catering	Van Buren Co. Extension	BAC
	Van Buren	Keosauqua	Barker Limited, INC	Van Buren Co. Extension	BAC
	Van Buren	Milton	Milton Creamery	Van Buren Co. Extension	BAC
	Van Buren	Keosauqua	Kaiser Wines	Van Buren Co. Extension	BAC
	Van Buren	Stockport	Philips Child Care	Van Buren Co. Extension	BAC
	Van Buren	Keosauqua	Barker Wire	Van Buren Co. Extension	FAC
	Van Buren	Keosauqua	Healthcare professionals	Van Buren Co. Extension	OCOM
	Van Buren	Keosauqua	Van Buren Hospital	Van Buren Co. Extension	OCOM
	Van Buren	Keosauqua	Whispering Pines Winery	Midwest Grape & Wine Industry Institute	BAC
	Van Buren	Keosauqua	Scenic Rivers Grape & Wine Assn	Midwest Grape & Wine Industry Institute	FAC
	Van Buren	Keosauqua	Van Buren Co. Hwy Dept.	CTRE/CP Tech	PWD
	Van Buren	Keosauqua	The Nest	ISU Extension	PWD
Van Buren County	15				15
	Wapello	Ottumwa	Crisis Center & Women's Shelter, Ottumwa	Johnson County Extension	PWD
	Wapello	Ottumwa	Southern Iowa Economic Development Association, Ottumwa	Johnson County Extension	PWD
	Wapello	Ottumwa	Excel Corporation	Veterinary Extension	3, 8
	Wapello	Ottumwa	Area 15-Regional Planning Comm.	CRP	TCOM
	Wapello	Ottumwa	Frog Legs, Inc.	College of Engineering	FAC
	Wapello	Ottumwa	John Deere	College of Engineering	PWD
	Wapello	Ottumwa	Distance Education Students = 6	Brenton Ctr for Ag Instruction	PWD
	Wapello	Ottumwa	PSEOA Distance Education Students = 7	Brenton Ctr for Ag Instruction	PWD
	Wapello	Ottumwa	Area 15-Regional Planning Comm.	Extension CED, CRP Extension	TCOM
	Wapello	Ottumwa	Chamber of Commerce	Extension CED	BCOM
	Wapello	Ottumwa	Citizenship Classes	Extension CED	OCOM
	Wapello	Ottumwa	Indian Hills Community College	Extension CED	OCOM
	Wapello	Ottumwa	Latino High School Students	Extension CED	FAC
	Wapello	Ottumwa	Main Street	Extension CED	OCOM
	Wapello	Ottumwa	Main Street Ottumwa	Extension CED	BCOM
	Wapello	Ottumwa	Ottumwa	Extension CED	OCOM/ TCOM
	Wapello	Ottumwa	Ottumwa Partners in Progress	Extension CED	FAC
	Wapello	Ottumwa	Ottumwa Substance Abuse Task F.	Extension CED	OCOM
	Wapello	Ottumwa	Translators and Interpreters	Extension CED	PWD
	Wapello	Ottumwa	United Way of Wapello County	Extension CED	PWD
	Wapello	Ottumwa	Upper Bound Students	Extension CED	OCOM
	Wapello		Wapello County tourism	Extension CED	FAC
	Wapello	Ottumwa	Latino High School Students	Wapello County	FAC
	Wapello	Ottumwa	Citizenship Classes	Wapello County	OCOM
	Wapello	Ottumwa	Main Street	Wapello County	OCOM
	Wapello	Ottumwa	Indian Hills Community College	Wapello County	OCOM
	Wapello	Ottumwa	Ottumwa Substance Abuse Task F.	Wapello County	OCOM
	Wapello	Ottumwa	Upper Bound Students	Wapello County	OCOM
	Wapello	Ottumwa	Translators and Interpretors	Wapello County	PWD
	Wapello	Ottumwa	John Deere Ottumwa Works	ISU Extension--Iowa Beef Center	FAC
	Wapello	Ottumwa	John Deere Ottumwa Works	ISU Extension--Iowa Beef Center	TT
	Wapello	Ottumwa	Applebee's	ISU Extension	PWD
	Wapello	Ottumwa	REL LLC	ISU Extension	PWD
	Wapello	Ottumwa	Al-Jon Inc	ISUE-CIRAS	TAC
	Wapello	Ottumwa	Ottumwa Machine Works, Inc.	ISUE-CIRAS	BAC
	Wapello		Event in Wapello County	ISUE-CIRAS	TAC
	Wapello	Eddyville	Ajinomoto Food Ingredients LLC	ISUE-CIRAS	TAC
	Wapello	Chillicothe	Wapello Co.	CTRE/CP Tech	PWD
	Wapello	Ottumwa	City of Oskaloosa	CTRE/CP Tech	PWD
	Wapello	Ottumwa	City of Ottumwa	CTRE/CP Tech	PWD
	Wapello	Ottumwa	Davis Co.	CTRE/CP Tech	PWD
	Wapello	Ottumwa	Ready Mix Concrete Co.	CTRE/CP Tech	PWD
	Wapello		United Way of Wapello County	CD-DIAL - Sociology Extension	OCOM
	Wapello		Wapello County Auditors	Extension CED	OCOM
Wapello County	44				44
	Warren	Norwalk	EMC Insurance Companies	College of Engineering	PWD
	Warren	Indianola	CAI Students	Crop Advisor Institute	PWD
	Warren	Indianola	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Warren	Milo	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Warren	New Virginia	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Warren	Norwalk	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Warren	Prole	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Warren	Milo	Milo Locker	Meat Science Extension	PWD
	Warren	Cumming	unknown	Extension CED	PWD
	Warren	Indianola	MakeMIneWine wine consumer magazine	Midwest Grape & Wine Industry Institute	TAC, BAC

	Warren	Indianola	Indianola Chamber of Commerce	Midwest Grape & Wine Industry Institute	FAC, BAC
	Warren		No Contacts that count by County Director		
	Warren	Carlisle	Welch Products Inc	ISUE-CIRAS	TAC
	Warren	Indianola	Cemen Tech Inc	ISUE-CIRAS	TAC
	Warren	Indianola	Cemen Tech Inc	ISUE-CIRAS	TAC
	Warren	Indianola	IPC	CTRE/CP Tech	PWD
	Warren	Indianola	Sternquist Construction, Inc.	CTRE/CP Tech	PWD
	Warren	Indianola	Warren Co.	CTRE/CP Tech	PWD
	Warren	Indianola	Iowa Association for Agriculture Education	Agricultural Education and Studies	OCOM
Warren County	19				18
	Washington	Mills	Planning & Zoning Commission	CRP	TCOM
	Washington	Mills	Planning & Zoning Commission	Extension CED, CRP Extension	TCOM
	Washington	Washington	Washington County Extension, Washington	Johnson County Extension	PWD
	Washington	Washington	Planning & Zoning Chair	CRP	TCOM
	Washington	Washington	Washington	Landscape Architecture, IDRO	BCOM/ PWD
	Washington	Washington	High School	CRP	BCOM
	Washington	Wellman	Wellman	Landscape Architecture, IDRO	BCOM
	Washington	Wellman	High School	CRP	BCOM
	Washington	Kalona	CIVCO Medical Solutions	College of Engineering	TAC
	Washington	Washington	POHAKU	College of Engineering	FAC
	Washington	Washington	Hays Water Science	IPRT Company Assistance-Technology Commercialization	TT
	Washington	Washington	Boyd's Sausage Company	Meat Science Extension	PWD
	Washington	Ainsworth	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Washington	Riverside	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Washington	Wellman	Mid Prairie Community School	Agricultural Education and Studies	FAC
	Washington	Washington	Compassion Iowa - Nonprofit Management Academy	Extension CED	PWD
	Washington	Washington	High School	Extension CED, CRP Extension	BCOM
	Washington	Washington	Planning & Zoning Chair	Extension CED, CRP Extension	TCOM
	Washington	Washington	Washington	Landscape Architecture, IDRO	BCOM/ PWD
	Washington	Washington	Washington County tourism	Extension CED	BCOM
	Washington	Wellman	High School	Extension CED, CRP Extension	BCOM
	Washington	Wellman	Wellman	Landscape Architecture, IDRO	BCOM
	Washington		Washington County	Extension CED	OCOM
	Washington		Move The Mountain Leadership Center	Johnson County Extension	PWD
	Washington		Marriage Matters	Johnson County Extension	PWD
	Washington		Iowa Center for Faith Based Community Initiatives	Johnson County Extension	PWD
	Washington	Washington	Hospice of Washington County, Washington	Johnson County Extension	PWD
	Washington	Washington	Buffalo Wild Wings	ISU Extension	PWD
	Washington	Washington	City of Washington	CTRE/CP Tech	PWD
	Washington	Washington	Washington Co.	CTRE/CP Tech	PWD
	Washington		County Local Housing Trust Fund	Extension CED	TCOM
Washington County	31				31
	Wayne	Corydon	Shivvers Incorporated	OIPTT	FAC
	Wayne	Corydon	Shivvers Inc.	ABE	TAC
	Wayne	Corydon	Wayne Comm School	McNay Research Farm, ISU	OCOM
	Wayne	Allerton	Allerton - Horizons Project	Families	OCOM
	Wayne	Corydon	Corydon - Horizons Project	Families	OCOM
	Wayne	Humeston	Humeston - Horizons Project	Families	OCOM
	Wayne	Seymour	Seymour - Horizons Project	Families	OCOM
	Wayne	Allerton	Allerton - Horizons Project	ISU Extension	OCOM
	Wayne	Corydon	Corydon - Horizons Project	ISU Extension	OCOM
	Wayne	Seymour	Seymour - Horizons Project	ISU Extension	OCOM
	Wayne	Humeston	Humeston - Horizons Project	ISU Extension	OCOM
	Wayne	Chariton	Wayne Co.	CTRE/CP Tech	PWD
	Wayne		Wayne County Auditors	Extension CED	OCOM
Wayne County	13				13
	Webster	Fort Dodge	YOUR Inc Head Start	ISU Extension	PWD
	Webster	Ft.Dodge	Fort Dodge Animal Health	College of Engineering	PWD
	Webster	Fort Dodge	Josephson Manufacturing Company	IPRT Company Assistance-Materials	TAC
	Webster	Fort Dodge	C&S Products Co. Inc.	Animal Science-Bregendahl	TAC
	Webster	Harcourt	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Webster	Vincent	Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD

	Webster	Fort Dodge	Distance Education Students = 6	Brenton Ctr for Ag Instruction	PWD
	Webster	Fort Dodge	Iowa Producers - Cooperative Formation	Economics & CCUR	BAC
	Webster	Fort Dodge	Lopez Foods, Inc.	Meat Science Extension	PWD
	Webster	Fort Dodge	Tate & Lyle	Ag and Biosystems Engineering & CCUR	FAC
	Webster	Fort Dodge	VeraSun	CCUR	FAC
	Webster	Fort Dodge	Iowa Producers - Cooperative Formation	Economics & CCUR	BAC
	Webster	Fort Dodge	Tate & Lyle	Ag and Biosystems Engineering & CCUR	FAC
	Webster	Fort Dodge	VeraSun	CCUR	FAC
	Webster	Fort Dodge	Ft. Dodge Historical Foundation	Extension CED	OCOM
	Webster	Fort Dodge	Schmeltzer Foundation	Extension CED	OCOM
	Webster		Webster County Auditors	Extension CED	OCOM
	Webster	Region	Mid-Iowa Economic Development	Greene County Extension	FAC
	Webster		Tate & Lyle	Webster Co. Extension - CEED	BAC
	Webster		Verasun	Webster Co. Extension - CEED	BAC
	Webster		NEW Coop	Webster Co. Extension - CEED	TAC
	Webster	Fort Dodge	Community Health Clinic	Webster Co. Extension - CEED	OCOM
	Webster	Fort Dodge	Friendship Haven	Webster Co. Extension - CEED	OCOM
	Webster		Community Foundation	Webster Co. Extension - CEED	OCOM
	Webster	Fort Dodge	Ag Committee - Chamber	Webster Co. Extension - CEED	FAC
	Webster		Mid Iowa Growth Partners - 9 Co. Region	Webster Co. Extension - CEED	BCOM
	Webster		ICCC	Webster Co. Extension - CEED	OCOM
	Webster	Fort Dodge	Butler School	Webster Co. Extension - CEED	OCOM
	Webster		Rabiner Boys Ranch	Webster Co. Extension - CEED	OCOM
	Webster		Prairie Valley Schools	Webster Co. Extension - CEED	OCOM
	Webster		Smeltzer Trust - Conservation	Webster Co. Extension - CEED	FAC
	Webster	Fort Dodge	low income population -via United Way	ISU Extension	OCOM
	Webster	Fort Dodge	PROSPER-Schools, Wal-Mart, Target, businesses	ISU Extension	PWD
	Webster	Fort Dodge area	Child Care Providers	ISU Extension	PWD
	Webster	Fort Dodge	Fort Dodge Correctional Facility	ISU Extension	PWD
	Webster	Fort Dodge	Community Family Resources	ISU Extension	PWD
	Webster	Fort Dodge area	ServeSafe Food Safety Course	ISU Extension	PWD
	Webster	Fort Dodge	Land O Lakes; Smithway Trucking	ISU Extension	PWD
	Webster	Fort Dodge	Lighten Up Iowa; Hy-Vee, Hospital, NEW Coop	ISU Extension	PWD
	Webster	Fort Dodge	Home Care Aides; Head Start Staff	ISU Extension	PWD
	Webster	Fort Dodge area	Area Agency on Aging-Meal Site workers	ISU Extension	PWD
	Webster	Fort Dodge	C and S Products Co	ISUE-CIRAS	TAC
	Webster		Event in Webster County	ISUE-CIRAS	PWD
	Webster	Fort Dodge	Misty Harbor	ISUE-CIRAS	BAC
	Webster	Fort Dodge	Misty Harbor	ISUE-CIRAS	BAC
	Webster	Fort Dodge	Arnold Consulting	ISUE-CIRAS	BAC
	Webster	Fort Dodge	Josephson Manufacturing Co	ISUE-CIRAS	BAC
	Webster	Fort Dodge	Fort Dodge Animal Health	ISUE-CIRAS	TAC
	Webster	Fort Dodge	TGC Machine, Inc.	ISUE-CIRAS	TAC
	Webster	Fort Dodge	Josephson Manufacturing Co	ISUE-CIRAS	TAC
	Webster	Fort Dodge	Fort Dodge	CTRE/CP Tech	PWD
	Webster	Fort Dodge	MER Engineering	CTRE/CP Tech	PWD
	Webster	Fort Dodge	Iowa Producers - Cooperative Formation	Economics & CCUR	BAC
	Webster	Fort Dodge	Tate & Lyle	Ag and Biosystems Engineeri	FAC
	Webster	Fort Dodge	VeraSun	CCUR	FAC
	Webster	Fort Dodge	Fort Dodge	Extension CED	TCOM
	Webster		Webster County	Extension CED	PWD
	Webster	Fort Dodge	Brokaw Equip / Owner Sucession	Webster Co. Extension - CEED	BAC
Webster County	58				58
	Winnebago	Forest City	Forest City	Landscape Architecture, IDRO	BCOM
	Winnebago	Forest City	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Winnebago	Leland	Thompson Seed	ISURF	TT
	Winnebago	Forest City	Forest City	Landscape Architecture, IDRO	BCOM
	Winnebago	Buffalo Center	North Iowa Community School	4-H Youth Development	OCOM
	Winnebago	Forest City	Forest City Community Schools	4-H Youth Development	OCOM
	Winnebago	Lake Mills	Lake Mills Community School	4-H Youth Development	OCOM
	Winnebago	Lake Mills	Larson Manufacturing	Winnebago County Extension	PWD
	Winnebago	Lake Mills	Dras Cases Inc	ISUE-CIRAS	BAC

	Winnebago	Lake Mills	Dras Cases Inc	ISUE-CIRAS	TAC
	Winnebago	Forest City	Winnebago Industries Inc - Forest City	ISUE-CIRAS	TAC
	Winnebago	Forest City	Winnebago Industries Inc - Forest City	ISUE-CIRAS	TAC
	Winnebago	Forest City	Winnebago Industries Inc - Forest City	ISUE-CIRAS	TAC
	Winnebago	Forest City	Winnebago Industries Inc - Forest City	ISUE-CIRAS	TAC
	Winnebago	Forest City	Winnebago Industries Inc - Forest City	ISUE-CIRAS	TAC
	Winnebago	Forest City	Winnebago Industries Inc - Forest City	ISUE-CIRAS	TAC
	Winnebago	Forest City	Winnebago Industries Inc - Forest City	ISUE-CIRAS	TAC
	Winnebago	Forest City	Winnebago Industries Inc - Forest City	ISUE-CIRAS	TAC
	Winnebago	Forest City	Winnebago Industries Inc - Forest City	ISUE-CIRAS	TAC
	Winnebago	Forest City	Winnebago Industries Inc - Forest City	ISUE-CIRAS	TAC
	Winnebago	Forest City	Winnebago Industries Inc - Forest City	ISUE-CIRAS	TAC
	Winnebago	Forest City	Winnebago Industries Inc - Forest City	ISUE-CIRAS	TAC
	Winnebago	Forest City	Winnebago Industries Inc - Forest City	ISUE-CIRAS	TAC
	Winnebago	Forest City	Winnebago Industries Inc - Forest City	ISUE-CIRAS	TAC
	Winnebago	Forest City	Winnebago Industries Inc - Forest City	ISUE-CIRAS	TAC
	Winnebago	Forest City	Winnebago Industries Inc - Forest City	ISUE-CIRAS	TAC
	Winnebago	Forest City	Winnebago Industries Inc - Forest City	ISUE-CIRAS	TAC
	Winnebago	Forest City	Winnebago Industries Inc - Forest City	ISUE-CIRAS	TAC
	Winnebago	Forest City	City of Forest City	CTRE/CP Tech	PWD
	Winnebago	Lake Mills	City of Lake Mills	CTRE/CP Tech	PWD
Winnebago County	31				31
	Winneshiek	Decorah	Decorah	Landscape Architecture, IDRO	BCOM/ OCOM
	Winneshiek	Upper Explorerland	Building & Zoning	CRP	TCOM
	Winneshiek	Decorah	Benham	College of Engineering	PWD
	Winneshiek	Decorah	Platinum Equity	College of Engineering	PWD
	Winneshiek	Decorah	Deco Products Company	IPRT Company Assistance-Materials	TAC
	Winneshiek	Fort Atkinson	CAI Students	Crop Advisor Institute	PWD
	Winneshiek	Decorah	Distance education student - BRT 501	OBP/ABE (Raman)	PWD
	Winneshiek	Castalia	Distance Education Students = 5	Brenton Ctr for Ag Instruction	PWD
	Winneshiek	Fort Atkinson	Kruse Hatchery	Meat Science Extension	PWD
	Winneshiek	Decorah	Lynch BBQ Company	Meat Science Extension	PWD
	Winneshiek	Calmar	PSEOA Distance Education Students = 2	Brenton Ctr for Ag Instruction	PWD
	Winneshiek	Calmar	Spillville Locker	Meat Science Extension	PWD
	Winneshiek	Spillville	Spillville Lockers Inc.	Meat Science Extension	PWD
	Winneshiek	Decorah	Wapsie Produce, Inc.	Meat Science Extension	PWD
	Winneshiek	Calmar	Northeast Iowa Community College	Agricultural Education and Studies	OCOM
	Winneshiek	Decorah	Decorah Community School	Agricultural Education and Studies	FAC
	Winneshiek	Burr Oak	Laura Ingalls Wilder Museum	Extension CED	FAC
	Winneshiek	Calmar	NE Iowa Community Development Conference	Extension CED	FAC
	Winneshiek	Castalia	Nex-Gen Biofuels, Inc.	Extension CED	BAC
	Winneshiek	Decorah	Decorah	Landscape Architecture, IDRO	BCOM/ OCOM
	Winneshiek	Decorah	East Side School Preservation Group	Extension CED	FAC
	Winneshiek	Decorah	NE Iowa Community Development Conference	Extension CED	FAC/ BCOM
	Winneshiek	Upper Explorerland	Building & Zoning	Extension CED, CRP Extension	TCOM
	Winneshiek		Chamber/Economic Dev/County Extension	Extension CED	PWD
	Winneshiek		County Local Housing Trust Fund	Extension CED	TCOM
	Winneshiek		NE Iowa Food & Farm Coalition	CD-DIAL - Sociology Extension	BAC
	Winneshiek		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
	Winneshiek		Northeast Iowa Food & Farm Coalition	Winneshiek County Extension	BCOM
	Winneshiek	Decorah	Winneshiek County Board of Supervisors	Winneshiek County Extension	BCOM
	Winneshiek	Decorah	Winneshiek County Economic Dev. Board	Winneshiek County Extension	BCOM
	Winneshiek		Northeast Iowa Food & Fitness Initiative	Winneshiek County Extension	BCOM
	Winneshiek	Decorah	Wapsi Produce	Winneshiek County Extension	FAC
	Winneshiek	Decorah	Lynch Livestock & Catering	Winneshiek County Extension	FAC
	Winneshiek	Calmar	Agricultural Dairy Builders	Thoreson, Dale Fld Spec ANR	TAC
	Winneshiek	Decorah	Economic Developers of IA and MN	Thoreson, Dale Fld Spec ANR	BCOM
	Winneshiek	Calmar	dairy construction companies	Dairy team	TAC
	Winneshiek	Calmar	dairy farms	Robert Tigner	TAC
	Winneshiek	Calmar	crop farms	Robert Tigner	BAC
	Winneshiek	Decorah	Cutting Edge Enterprise LLC	ISUE-CIRAS	BAC
	Winneshiek	Decorah	Erdman Engineering, P.C.	CTRE/CP Tech	PWD
	Winneshiek	Decorah	Holcim (US) Inc	CTRE/CP Tech	PWD
	Winneshiek	Decorah	Nelson Consulting	CTRE/CP Tech	PWD
	Winneshiek	Decorah	Winneshiek Co.	CTRE/CP Tech	PWD
	Winneshiek		NE Iowa Community Development Conference	Extension CED	FAC

Winneshiek County	44				44
	Woodbury	Sioux City	First National Bank	Communities Extension	OCOM
	Woodbury	Sioux City	Sioux City Foundry Co	College of Business	FAC
	Woodbury	Sioux City	JacobsonBekins	College of Business	FAC
	Woodbury	Sioux City	Red Wheel Fundraising/Broadway Foods	College of Business	BAC
	Woodbury	Moville	Moville	Landscape Architecture, IDRO	BCOM
	Woodbury	Sergeant Bluff	P & Z Commission Member	CRP	TCOM
	Woodbury	Sergeant Bluff	Zoning Board of Adjustment	CRP	TCOM
	Woodbury	Sioux City	Iowa Department of Economic Development	IDRO	BCOM
	Woodbury	Sioux City	American Popcorn Company	College of Engineering	PWD
	Woodbury	Sioux City	Siouxland Dist. Health	College of Engineering	PWD
	Woodbury	Sioux City	GELITA North America	IPRT Company Assistance-Materials	TAC
	Woodbury	Sioux City	Wilson Trailer Company	IPRT Company Assistance-Materials	TAC
	Woodbury	Sioux City	Nutra-Flo	IPRT Company Assistance-Technology Commercialization	TT
	Woodbury	Sioux City	Sioux City Police Department	Midwest Forensics Resource Center, IPRT	PWD
	Woodbury	Sioux City	Chief Energy	OBP (Fales, Raman)	FAC
	Woodbury	Sioux City	Cloverleaf Cold Storage	Meat Science Extension	PWD
	Woodbury	Sioux City	Distance education student - BRT 501	OBP/ABE (Raman)	PWD
	Woodbury	Sioux City	Distance Education Students = 4	Brenton Ctr for Ag Instruction	PWD
	Woodbury	Sioux City	Feed Energy Company	Agricultural & Biosystem Engineering - STIR	TAC
	Woodbury	Sioux City	Loess Hills Prairie Seminar Group	Western Research Farm, ISU	FAC
	Woodbury	Sioux City	Sadex	Meat Science Extension	PWD
	Woodbury	Sioux City	Verschoor Meats	Meat Science Extension	PWD
	Woodbury	Lawton	Envirotech Systems, Inc.	ISURF	TT
	Woodbury	Moville	Moville	Landscape Architecture, IDRO	BCOM
	Woodbury	Sergeant Bluff	P & Z Commission Member	Extension CED, CRP Extension	TCOM
	Woodbury	Sergeant Bluff	Zoning Board of Adjustment	Extension CED, CRP Extension	TCOM
	Woodbury	Sioux City	Compassion Iowa - Nonprofit Management Academy	Extension CED	PWD
	Woodbury	Sioux City	Iowa Department of Economic Development	IDRO	BCOM
	Woodbury	Sioux City	Sioux City	Extension CED	TCOM/ OCOM/ PWD
	Woodbury	Sioux City	unknown	Extension CED	PWD
	Woodbury	Sioux City	Economic Development Partners group	ISU Extension	BCOM
	Woodbury	Sioux City	Economic development - Midstates conf.	ISU Extension	BCOM
	Woodbury	Sioux City	economic development -regional planning	ISU Extension	BCOM
	Woodbury	Sioux City	Wind energy conference planning	ISU Extension	BCOM
	Woodbury	Moville	Woodbury Central Community School	ISU Extension	PWD
	Woodbury	Sioux City	Taco John's	ISU Extension	PWD
	Woodbury	Sioux City	Dairy Queen	ISU Extension	PWD
	Woodbury	Sioux City	Mercy Medical Center	ISU Extension	PWD
	Woodbury	Sergeant Bluff	Floyd House Assisted Living	ISU Extension	PWD
	Woodbury	Sioux City	Mid-Step Services	ISU Extension	PWD
	Woodbury	Sioux City	Barnes & Noble	ISU Extension	PWD
	Woodbury	Sioux City	Siouxland Surgery Center	ISU Extension	PWD
	Woodbury	Sioux City	Bickford Cottage	ISU Extension	PWD
	Woodbury	Sioux City	Taco Bell	ISU Extension	PWD
	Woodbury	Anthon	Anthon-Oto Community School District	ISU Extension	PWD
	Woodbury	Sioux City	Negron's Mexican Food	ISU Extension	PWD
	Woodbury	Sioux City	Coyote Canyon	ISU Extension	PWD
	Woodbury	Sioux City	Clarion Hotel	ISU Extension	PWD
	Woodbury	Sioux City	Distinctive Gourmet	ISU Extension	PWD
	Woodbury	Sioux City	Alzheimer's Association	ISU Extension	PWD
	Woodbury	Sioux City	HuHot Mongolian Grill	ISU Extension	PWD
	Woodbury	Sioux City	Chick Fil-A Restaurant	ISU Extension	PWD
	Woodbury	Sioux City	CBM	ISU Extension	PWD
	Woodbury	Sioux City	Red Robin Restaurant	ISU Extension	PWD
	Woodbury	Sioux City	Kentucky Fried Chicken	ISU Extension	PWD
	Woodbury	Sioux City	Arby's Restaurant	ISU Extension	PWD
	Woodbury	Sioux City	Prime Living Apartments	ISU Extension	PWD
	Woodbury	Sioux City	Food Bank of Siouxland	ISU Extension	PWD
	Woodbury	Sioux City	Community Action Agency of Siouxland	ISU Extension	PWD
	Woodbury	Sioux City	Crittenton Center	ISU Extension	PWD
	Woodbury	Sioux City	3 Non profit series offered- Planning group	ISU Extension	PWD
	Woodbury	Sioux City	Compassion Iowa groups hosted here	ISU Extension	PWD
	Woodbury	Sioux City	Siouxland Industrial Roundtable training	ISU Extension	PWD
	Woodbury	Sioux City	Jackson Recovery - training for staff	ISU Extension	PWD
	Woodbury	Sergeant Bluff	Prime Living Apartments	ISU Extension	PWD
	Woodbury	Sioux City	2 Child care conference planning	ISU Extension	OCOM
	Woodbury	Sioux City	council- sex. assault & dom. violence	ISU Extension	OCOM
	Woodbury	Sioux City	Action - community meetings	ISU Extension	OCOM
	Woodbury		Event in Woodbury County	ISUE-CIRAS	TAC

	Woodbury	Sioux City	Sioux City Foundry Co	ISUE-CIRAS	TAC
	Woodbury		Event in Woodbury County	ISUE-CIRAS	FAC
	Woodbury		Event in Woodbury County	ISUE-CIRAS	FAC
	Woodbury		Event in Woodbury County	ISUE-CIRAS	BAC
	Woodbury		Event in Woodbury County	ISUE-CIRAS	TAC
	Woodbury	Sioux City	Nutra-Flo Co - Sioux City	ISUE-CIRAS	TAC
	Woodbury	Sioux City	Nutra-Flo Co - Sioux City	ISUE-CIRAS	TAC
	Woodbury	Sioux City	American Pop Corn Co	ISUE-CIRAS	TAC
	Woodbury	Sioux City	Sioux Rubber Applicators	ISUE-CIRAS	TAC
	Woodbury	Sioux City	2 Child care conference planning	families	OCOM
	Woodbury	Sioux City	3 Non profit series offered- Planning group	community and ED	PWD
	Woodbury	Sioux City	Action - community meetings	families	OCOM
	Woodbury	Sioux City	Alzheimer's Association	Families Extension	PWD
	Woodbury	Anthon	Anthon-Oto Community School District	Families Extension	PWD
	Woodbury	Sioux City	Arby's Restaurant	Families Extension	PWD
	Woodbury	Sioux City	Barnes & Noble	Families Extension	PWD
	Woodbury	Sioux City	Bickford Cottage	Families Extension	PWD
	Woodbury	Sioux City	CBM	Families Extension	PWD
	Woodbury	Sioux City	Chick Fil-A Restaurant	Families Extension	PWD
	Woodbury	Sioux City	Clarion Hotel	Families Extension	PWD
	Woodbury	Sioux City	Community Action Agency of Siouxland	Families Extension	PWD
	Woodbury	Sioux City	Compassion Iowa groups hosted here	community and ED	PWD
	Woodbury	Sioux City	council- sex. assault & dom. violence	families	OCOM
	Woodbury	Sioux City	Coyote Canyon	Families Extension	PWD
	Woodbury	Sioux City	Crittenton Center	Families Extension	PWD
	Woodbury	Sioux City	Dairy Queen	Families Extension	PWD
	Woodbury	Sioux City	Distinctive Gourmet	Families Extension	PWD
	Woodbury	Sioux City	Economic development - Midstates conf.	community and ED	BCOM
	Woodbury	Sioux City	Economic Development Partners group	families and community and ED	BCOM
	Woodbury	Sioux City	economic development -regional planning	community and ED	BCOM
	Woodbury	Sergeant Bluff	Floyd House Assisted Living	Families Extension	PWD
	Woodbury	Sioux City	Food Bank of Siouxland	Families Extension	PWD
	Woodbury	Sioux City	HuHot Mongolian Grill	Families Extension	PWD
	Woodbury	Sioux City	Jackson Recovery - training for staff	families	PWD
	Woodbury	Sioux City	Kentucky Fried Chicken	Families Extension	PWD
	Woodbury	Sioux City	Mercy Medical Center	Families Extension	PWD
	Woodbury	Sioux City	Mid-Step Services	Families Extension	PWD
	Woodbury	Sioux City	Negron's Mexican Food	Families Extension	PWD
	Woodbury	Sioux City	Prime Living Apartments	Families Extension	PWD
	Woodbury	Sioux City	Red Robin Restaurant	Families Extension	PWD
	Woodbury		SCORE	Communities	BCOM
	Woodbury	Sioux City	Siouxland Industrial Roundtable training	business and Industry	PWD
	Woodbury	Sioux City	Siouxland Surgery Center	Families Extension	PWD
	Woodbury	Sioux City	Taco Bell	Families Extension	PWD
	Woodbury	Sioux City	Taco John's	Families Extension	PWD
	Woodbury	Sioux City	Wind energy conference planning	community and ED	BCOM
	Woodbury	Moville	Woodbury Central Community School	Families Extension	PWD
	Woodbury	S. Sioux City	Olsson Associates	CTRE/CP Tech	PWD
	Woodbury	Salix	Headwaters Resources	CTRE/CP Tech	PWD
	Woodbury	Sergeant Bluff	Nebraska Ash Company	CTRE/CP Tech	PWD
	Woodbury	Sergeant Bluff	Veenstra & Kimm	CTRE/CP Tech	PWD
	Woodbury	Sioux	Woodbury Co.	CTRE/CP Tech	PWD
	Woodbury	Sioux City	Buell Winter Mousel & Assoc.	CTRE/CP Tech	PWD
	Woodbury	Sioux City	Certified Testing Services Inc.	CTRE/CP Tech	PWD
	Woodbury	Sioux City	City of Sioux City	CTRE/CP Tech	PWD
	Woodbury	Sioux City	DeWild Grant Reckert & Assoc Co.	CTRE/CP Tech	PWD
	Woodbury	Sioux City	Dotzler Engineering Enterprises	CTRE/CP Tech	PWD
	Woodbury	Sioux City	FEH Associates., Inc.	CTRE/CP Tech	PWD
	Woodbury	Sioux City	Gleeson Constructors, LLC	CTRE/CP Tech	PWD
	Woodbury	Sioux City	Howard R. Green Co.	CTRE/CP Tech	PWD
	Woodbury	Sioux City	Iowa Concrete Paving	CTRE/CP Tech	PWD
	Woodbury	Sioux City	Iowa DOT	CTRE/CP Tech	PWD
	Woodbury	Sioux City	Knife River Midwest	CTRE/CP Tech	PWD
	Woodbury	Sioux City	Kraco Contractors	CTRE/CP Tech	PWD
	Woodbury	Sioux City	MidAmerican Energey	CTRE/CP Tech	PWD
	Woodbury	Sioux City	Olsson Associates	CTRE/CP Tech	PWD
	Woodbury	Sioux City	Rose Engineering PC	CTRE/CP Tech	PWD
	Woodbury	Sioux City	Schroder Engineering	CTRE/CP Tech	PWD
	Woodbury	Sioux City	Sioux City	CTRE/CP Tech	PWD
	Woodbury	Sioux City	Standard Ready Mix Concrete	CTRE/CP Tech	PWD
	Woodbury	Sioux City	Woodbury Co.	CTRE/CP Tech	PWD
	Woodbury	South Sioux City	Olsson Associates	CTRE/CP Tech	PWD
	Woodbury	Sioux City	City Local Housing Trust	Extension CED	TCOM
Woodbury County	142				142
	Worth	Manly	Manly	Landscape Architecture, IDRO	BCOM
	Worth	Northwood	Northwood	Landscape Architecture, IDRO	BCOM
	Worth	Manly	Sunny Fresh Foods	College of Engineering	PWD
	Worth	Manly	Manly	Landscape Architecture, IDRO	BCOM
	Worth	Northwood	Northwood	Landscape Architecture, IDRO	BCOM

	Worth		SCORE	Extension CED	BCOM
	Worth		Siouxland Human Investment Partnership	CD-DIAL - Sociology Extension	OCOM
	Worth		Woodbury County Auditors	Extension CED	OCOM
	Worth	Northwood	Northwood-Kensett Community School	4-H Youth Development	OCOM
	Worth	Northwood	Advanced Component Technologies	ISUE-CIRAS	TAC
	Worth	Northwood	Advanced Component Technologies	ISUE-CIRAS	TAC
	Worth	Northwood	Advanced Component Technologies	ISUE-CIRAS	TAC
	Worth		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
	Worth		Worth County	Extension CED	OCOM
Worth County	14				14
	Wright	Eagle Grove	Fairgrounds Masterplan	Landscape Architecture	BCOM
	Wright	Eagle Grove	Wright County Fair Board	Landscape Architecture IDRO	TCOM
	Wright	Belmond	CAI Students	Crop Advisor Institute	PWD
	Wright	Goldfield	Distance Education Students = 1	Brenton Ctr for Ag Instruction	PWD
	Wright	Clarion	Distance Education Students = 3	Brenton Ctr for Ag Instruction	PWD
	Wright	Woolstock	Distance Education Students = 4	Brenton Ctr for Ag Instruction	PWD
	Wright	Eagle Grove	Lewright Meats, Inc.	Meat Science Extension	PWD
	Wright	Rowan	Rowan Public Library	Northern Research Farm, ISU	OCOM
	Wright	Clarion	Wright County Homeland Security Emergency Management	Extension CED	PWD
	Wright	Eagle Grove	Eagle Grove	Extension CED	TCOM
	Wright	Eagle Grove	Fairgrounds Masterplan	Extension CED, Landscape Architecture Extension	BCOM
	Wright	Eagle Grove	Wright County Fair Board	Landscape Architecture Extension, IDRO	TCOM
	Wright		Silos & Smokestacks National Heritage Area	Extension CED	OCOM
	Wright		Wright County Medical Conference	Extension CED	PWD
	Wright	Clarion	Wright Medical Center	Communities Field Specialist	PWD
	Wright	Clarion	general public - low income population	ISU Extension	OCOM
	Wright	Eagle Grove	McKinley Advertising	ISUE-CIRAS	BAC
	Wright	Clarion	Patington, Inc.	ISUE-CIRAS	BAC
	Wright	Clarion	Hagie Manufacturing Co	ISUE-CIRAS	TAC
	Wright	Clarion	Hagie Manufacturing Co	ISUE-CIRAS	TAC
	Wright		Wright County Medical Conference	Communities	PWD
	Wright		Wright County	Extension CED	OCOM/ PWD
	Wright	Eagle Grove	Lewright Meats Inc.	Business and Industry	BAC
	Wright	Clarion	Hagie Manufacturing	Business and Industry	TAC
	Wright	Belmond	City of Belmond	County Extension	OCOM
Wright County	25				25
Grand Total	4484				4483

VPR Office
May 13, 2005

Categories for Reporting of Technology Transfer & Economic Development Activities

1. **Business assistance to companies (BAC)** including market research, business plans, and strategic planning, i.e., the financial side

2. **Business assistance to communities, regions & econ development groups (BCOM)**--'business' here has a broad interpretation, including e.g. community planning

3. **Technical assistance to companies and industry associations (TAC)**--shorter or larger projects, engineering and science oriented, plant lay-out designs, and quality control.

4. **Technical assistance to communities and regions (TCOM)**--road, water, sewer, i.e. mostly infrastructure etc

5. **Facilitation (FAC)**--includes hosting company visits and organizing visits to companies, interacting with economic development groups, industry associations, etc., and coordinating participation in conferences and other events

6. **Other community assistance (OCOM),** e.g. school, law enforcement groups, healthcare professionals, etc

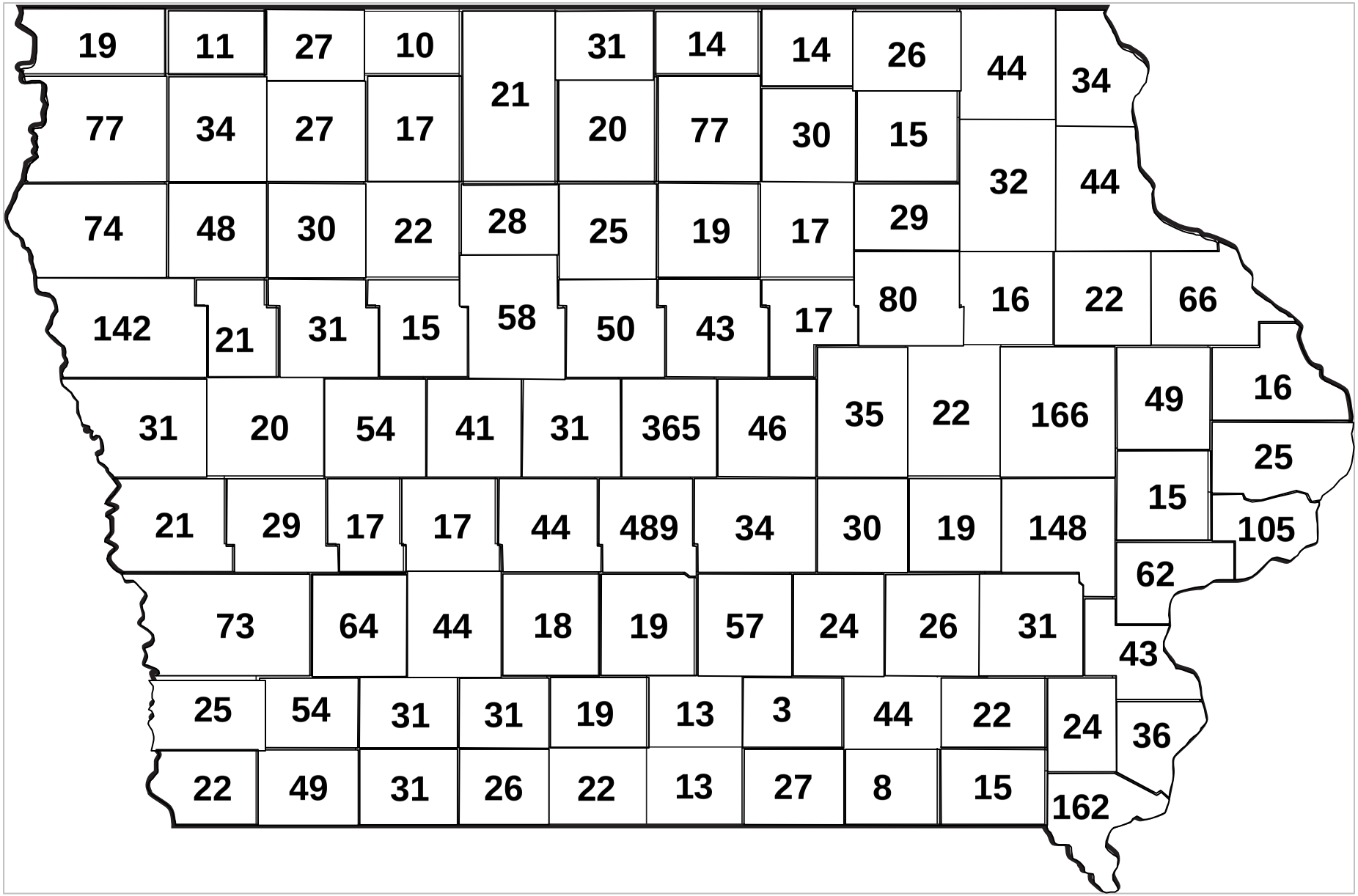
7. **Professional and workforce development, including distance education for credit and not for credit (PWD)--**includes professional development programs for individuals not at ISU

8. **Technology transfer (TT)** in the narrow sense, i.e. activities related to ISU technology development and licensing.

Start-up companies are of great interest to many who will receive our reports. Therefore we will separate out start-up companies as a sub-category in categories 1, 2 and 3. We define 'start-up company' as any business that has been in existence five years or less. Newly founded or acquired subsidiaries of larger companies fall into this category, if the subsidiary exists for five years or less.

When collecting info, count incidents, not dollars.

FY07 Economic Development Interactions by County



IOWA STATE UNIVERSITY GROW IOWA VALUES FUND UPDATE

AUGUST 2007

FY06 FUNDED PROJECTS

Final Reports

Principal Investigator	Project Title	Award Amount
Johnny Wong	Quality Assessment Tools for Colonoscopy	$75,405
Victor Lin	Enhancing the Soy Biorefinery	$140,000
Arun Somani	Model-based Reasoning for Software: Advanced Algorithmic Techniques and Prototype Implementation	$97,573
Atul Kelkar	Pneumatic Continuously Variable Natural Frequency and Damping Isolator for Active Suspensions	$73,919
Matthew Erdman	Viral replicon particle discovery research for development of improved vaccines for swine	$104,064

Ongoing Projects
Update period: January 01, 2007 – June 30, 2007

Principal Investigator	Project Title	Award Amount
Surya Mallapragada	Protein Micropatterning on Microsensors to Quantify Cell Cytotoxicity of Adherent and Non-adherent Cells	$21,525
Byron Brehm-Stecher	Applied Nanotechnology for Label-free Detection of Pathogen-Specific Nucleic Acids	$99,800
Martha James	Development of Novel Digestion-Resistant Starches from Corn to Combat Human Disease	$99,400
David Grewell	Retooling Ethanol Industries: Integrating Ultrasonics into Dry Corn Milling to Enhance Ethanol Yield	$80,519

Quality Assessment Tools for Colonoscopy

Principal Investigator: Johnny Wong
Co-PIs: Wallapak Tavanapong
Industry Partners (company names only): EndoMetric, LLC

Project Goal: To enhance and integrate our proof-of-concept software for objectively measuring the quality of colonoscopy and to test its value in a high volume, world-class colonoscopy practice in preparation for commercialization.

Executive Summary:
Please provide a 300-500 word summary of the final results of the project (text only, 2500 character maximum), including the commercialization status.
We have met and exceeded the milestones outlined in the original proposal.
I. Progress on Software Development
•Arthemis 3.0 (or EndoMetric-Manual---Software for annotating colonoscopy videos): We completed the implementation of the software. Dr. de Groen (domain expert) has used the software to annotate colonoscopy videos.
•Avidense version 2.0 (software that analyzes quality measurements from captured videos generated during colonoscopy): We completed the development of the proof-of-concept analysis software that produces a total of six quality metrics (one extra metric in addition to what we originally proposed) for videos captured from Olympus endoscopes. These metrics are (1) location of maximal intubation; (2) duration of informative frame video segment during withdrawal excluding both biopsy and therapeutic operations; (3) duration of operational episodes; (4) direction of movement and speed estimate of the endoscope during withdrawal; (5) an estimated score of quality of colon mucosa inspection; and (6) number of images with the appendiceal orifice clearly seen. The software has been installed at Mayo Clinic Rochester in September of 2006 and show promising results.
II. Progress on Commercialization
•Increased Visibility. We have demonstrated EndoMetric-Manual at Digestive Disease Week 2006 in May in Los Angeles. Our invention on the automatic quality measurement system also received the 2006 American College of Gastroenterology (ACG) Governors Award for Excellence in Clinical Research. News articles on the award appeared locally and nationally. Oncology Times, IEEE Intelligent Systems, and Gastroenterology & Endoscopy News have articles on our work. Our work has created a significant visibility for the university and the state of Iowa.
•Protection of Key Intellectual Property. Mayo Medical Venture (MMV) has filed patent applications to cover related inventions on behalf of ISU, Mayo, and UTA. The application includes 13 inventions.
•Formation of EndoMetric, LLC, an Iowa-based startup company to commercialize our technology. We have incorporated the company and developed the business plan with the help of the ISU Papajohn Business center. Our business plan was one of the thirty plans selected to compete in the next stage of the 2007 Pappajohn Iowa Business Plan Competition.
•External collaboration. We conducted feedback sessions with endoscopy staffs at UI and IDDC and received verbal agreements to have the two places as test sites.

External Funding:
Please list all of the applications for external funding that you have applied for using the results from this GIVF project, including the status (awarded, denied, pending).
•Automated Reporting System for Colonoscopy. Mayo Clinic Rochester. 01/15/2007 – 12/31/2007. $50,000. Status: Awarded.

•Enhancement of a Quality Control System for Colonoscopy. Iowa State University Research Foundation. 03/01/07 – 02/28/08. $25,000. Status: Awarded.
•Evaluation of a Quality Assessment System for Colonoscopy at Iowa Digestive Disease Center (IDDC). Iowa State University Technology Commercialization Acceleration Program. 01/01/2007-06/30/2007. $10,000. Status: Awarded.
•Evaluation of Quality Assessment Tools for Colonoscopy. Grow Iowa Values Fund. Iowa State University. 07/01/2007-06/30/2008. $100,397. Status: Pending.
•Computer-Aided Quality Control for Colonoscopy, National Institutes of Health, STTR. 01/01/2008-06/30/2008. $100,000. Status: Pending.
•III-CXT: Objective Quality Control System for Colonoscopy. National Science Foundation. 06/01/07-05/31/10. $861,546. Status: Rejected; reason: regarded as an application of techniques developed as part of our current NSF grant.

Intellectual Property

Please list any invention disclosures (ISURF number and one-sentence description) related to the project that existed PRIOR to the start of the project:
ISURF #03305: Intelligent Multimedia Processing and Analysis for Colorectal Tumors (IMPACT)

Please list any invention disclosures (ISURF number and one-sentence description) that were made as a result of the project:

Please indicate if you intend to file future invention disclosures related to this project (one-sentence description):
We have other new algorithms to be filed.

Publications and Presentations

Please list all publications and presentations (published or pending) that included the results of this research:
- P. C. De Groen, W. Tavanapong, J. Oh, J. Wong. Computer-aided Quality Control for Colonoscopy: Automatic Documentation of Cecal Intubation. Digestive Disease Week 2007. ASGE Poster Session Endoscopic Technology Endoscopy: New Image Technology, May 15-24, 2007, Washington DC, USA.
- D. Liu, Y. Cao. W. Tavanapong, J. Wong, J. Oh, and P. C. de Groen. Mining Colonoscopy Videos to Measure Quality of Colonoscopic Procedures. In Proc. of IASTED Int'l Conf. on Biomedical Engineering (BioMed), pages 409-414, Innsbruck, Austria, February 2007. (Oral presentation)
- Y. Cao, D. Liu, W. Tavanapong, J. Wong, J. Oh, and P. C. de Groen. Automatic Classification of Images with Appendiceal Orifice in Colonoscopy Videos. In Proc. of IEEE Engineering in Medicine and Biology Conference, pages 2349-2352, New York City, New York, August 2006. (Oral presentation).
- Danyu Liu, Yu Cao, Ki-Hwan Kim, Sean Stanek, Bancha Doungratanaex-chai, Kungen Lin, Wallapak Tavanapong, Johnny Wong, JungHwan Oh, and Piet C. de Groen. Arthemis: Annotation Software in an Integrated Capturing and Analysis System for Colonoscopy. In preparation for 2nd round review of Computer Methods and Programs in Biomedicine.

Honors and Awards

Please list all honors/awards/special press/etc. related to this project.
Award

- Objective Quality Control for Colonoscopy: Automated Extraction of Endoscopic Metrics from Video Files. 2006 American College of Gastroenterology Governors Award for Excellence in Clinical Research for "The Best Scientific Paper," Oct. 21, 2006.

Articles written by others discussing our work

- New Technology Aims to Improve Colonoscopy by Automatically & Objectively Analyzing Efficacy, Oncology Times, Volume 1, Jan 10, pages 24-25.
- Danna Voth. Toward More Intelligent Healthcare, IEEE Intelligent Systems, March/April 2007, pages 5-7.
- Best of ACG. Gastroenterology & Hepatology Volume 3, issue 1, Jan 2007, pages 41-48.
- Steve Frandzel. New Digital Recording System Measures Colonoscopy Performance Metrics. Gastroenterology & Endoscopy News. Volume 58, issue 3, March 2007.

Enhancing the Soy Biorefinery

Principal Investigator: Victor S.-Y. Lin
Co-PIs: George A. Kraus, John G. Verkade
Industry Partners (company names only): Catilin, Inc.

Project Goal: The objectives of this project are to lower the costs of production of biodiesel by refining and engineering a system to deploy new catalyst technologies for converting soy oil or other oil-containing feedstocks to biodiesel, and to refine a process to convert glycerin into 1,3-propanediol (PDO).

Executive Summary:
Please provide a 300-500 word summary of the final results of the project (text only, 2500 character maximum), including the commercialization status.
The goal of this project is to increase the efficiency, expand the product line, and enhance the profitability of biodiesel industry. We are happy to report that we have made some significant progress in taking soy biorefining to the next stage – furthering the value-added utilization of the soybean. Specifically, we have accomplished the following specific goals that we proposed a year ago:

1. Revolutionize the way biodiesel is produced.
We have developed two types of novel solid catalysts that are low cost, heterogeneous, and recyclable, eliminating the "wash and neutralization step" of biodiesel production, which, in turn, significantly lowers the cost of manufacturing biodiesel. We have filed two patent applications on these new catalysts through ISURF. We have received $3,000,000 from a California-based venture capital firm, Mohr Davidow Ventures, to establish a new start-up company, Catilin, Inc. (www.catilin.com), for the commercialization of these new catalyst technologies.

2. Convert glycerin into value-added chemicals.
We have evaluated the ionic hydrogenation reaction to convert glycerin into 1,3-propanediol. A porous silicon (PSi) material was developed to be a reagent to convert glycerin into 1,3-propanediol. Preliminary results obtained by the Kraus and Lin group show that reduction of glycerol on a gram scale using the PSi produces only 1,3-propanediol in a 55% yield. A patent application was filed through ISURF.

Accomplished Milestones:
Several deliverables generated from this project on the soy biorefinery are:
- Establishment of Catilin, Inc. for the commercialization of our biodiesel catalyst technology.
- New synthetic laboratory at the Innovations Development Facility (IDF) of the Plant Science Institute (Carver Co-Lab) for the scale up synthesis of the biodiesel catalysts
- Collaboration with the Biomass Energy Conversion Center (BECON) for the construction of a biodiesel production pilot plant using our new solid catalyst technology.

Jobs created from this project so far:
- Four full time employees at Catilin for biodiesel catalyst development and commercialization.

External Funding:
Please list all of the applications for external funding that you have applied for using the results from this GIVF project, including the status (awarded, denied, pending).

"Start-up company for commercialization of new solid biodiesel catalysts" $3,000,000 Mohr Davidow Ventures (awarded)
"Diols from Polyols" $1,200,000 U.S. DOE/USDA Biomass Research and Development Initiative (denied)

Intellectual Property

Please list any invention disclosures (ISURF number and one-sentence description) related to the project that existed PRIOR to the start of the project:
ISURF #2979 Mesoporous Solid Acid Catalyst for Conversion of Soybean Oil to Biodiesel and Elimination of Fatty Acids

Please list any invention disclosures (ISURF number and one-sentence description) that were made as a result of the project:
ISURF #3196 Selective Reduction of Polyols by Porous Silicon (Conversion of Glycerin to PDO)
ISURF #3280 A new Porous Silica & Calcium Oxide Composite-based Catalyst for Conversion of Vegetable Oils to Biodiesel
ISURF #03503 Cement Kiln Dust-based Transesterification Catalyst for Conversion of Vegetable Oils to Biodiesel

Please indicate if you intend to file future invention disclosures related to this project (one-sentence description):

Publications and Presentations

Please list all publications and presentations (published or pending) that included the results of this research:
1. "Nanoporous Solid Catalysts for Efficient Biodiesel Production" Victor S.-Y. Lin, Thailand-U.S.A. OSTC/NSTDA/MOST/ATPAC Annual Workshop, Biodiesel Symposium: Heterogeneous Catalysis, Columbus, Ohio, August 28-29, 2006 (Invited Talk).

2. "Environmentally Friendly Nanoporous Oxide Catalysts for Biodiesel Synthesis" Victor S.-Y. Lin, Green Chemistry for Fuel Synthesis and Processing Symposium, 232nd ACS National Meeting, San Francisco, CA, September 10-14, 2006 (Invited Talk).

3. "Gatekeeping Effect: Multi-functionalized Mesoporous Silica Nanomaterials for Catalysis and Biotechnological Applications" Victor S.-Y. Lin, Department of Chemistry, University of North Carolina at Chapel Hill, Chapel Hill, NC, September 19, 2006 (Chemistry Seminar).

4. "Gatekeeping Effect: Multi-functionalized Mesoporous Silica Nanomaterials for Catalysis and Biotechnological Applications" Victor S.-Y. Lin, Department of Chemistry, Duke University, Durham, NC, September 20, 2006 (Chemistry Seminar).

5. "Gatekeeping Effect: Multifunctional Mesoporous Silica Materials for Catalysis and Biomedical Applications" Victor S.-Y. Lin, 4th COE 21 International Symposium on Human-Friendly Materials Based on Chemistry, University of Tokyo, Tokyo, Japan, October 10-11, 2006 (Invited Keynote Talk).

6. "Environmentally Friendly Nanoporous Oxide Catalysts for Biodiesel Synthesis" Victor S.-Y. Lin, 9th Annual Chinese-American Frontiers of Science (CAFOS) Symposium, Irvine, California, October 26-28, 2006 (Invited Talk).

6. "Gatekeeping Effect: Multi-functionalized Mesoporous Silica Nanomaterials for Catalysis and Biotechnological Applications" Victor S.-Y. Lin, Department of Chemistry, Michigan State University, East Lansing, Michigan, November 6, 2006 (Chemistry Seminar).

7. "Multifunctional Mesoporous Silica Nanoparticles for Catalysis, Sensor, and Intracellular Controlled Release Applications" Victor S.-Y. Lin, CSR-Catalytic Systems, ExxonMobil Research and Engineering Co., Annandale, New Jersey, December 7, 2006 (Invited Talk).

8. "Gatekeeping Effect: Multifunctional Mesoporous Silica Nanoparticles for Selective Catalysis and Conversion of Bio-based Feedstocks to Biodiesel" Victor S.-Y. Lin, North East Zeolite/Mesoporous Catalytic Materials Symposium (NECZA Symposium), Philadelphia, Pennsylvania, December 8, 2006 (Invited Talk).

9. "Multifunctional mesoporous nanoparticle-based catalysts and controlled release delivery systems for bioenergy applications" Victor S.-Y. Lin, Sustainability of Energy, Food, and Water Symposium, 233rd ACS National Meeting, Chicago, IL, March 25-29, 2007 (Invited Talk).

10. "Functional Mesoporous Metal oxides for Bio-mimetic Cooperative Catalysis and Biodiesel Synthesis" Victor S.-Y. Lin, The Catalysis Club of Philadelphia 2007 Spring Symposium, Holiday Inn Select – Claymont, DE, May 14, 2007 (Invited Speaker).

11. "Multifunctional Mesoporous Silica Nanoparticles for Selective Catalysis and Conversion of Bio-based Feedstocks to Biodiesel and Value-added Chemicals" Victor S.-Y. Lin, the U.S. Department of Energy, Office of Science, Office of Basic Energy Sciences Catalysis Program Contractors' Meeting, Wintergreen, VA, May 23-26, 2007 (Invited Speaker).

Honors and Awards

Please list all honors/awards/special press/etc. related to this project.
Our biodiesel research breakthrough was featured on a public television program (PBS) of "Farmers' Almanac TV." The episode was broadcast on Friday, June 8, on Iowa Public Television (IPTV).

The New York Times published a story about our new biodiesel catalyst technology and the technology transfer from Iowa State University to Catilin, Inc. on July 1, 2007.

Model-based Reasoning for Software: Advanced Algorithmic Techniques and Prototype Implementation

Principal Investigator: Arun Somani
Industry Partners (company names only): EnSoft Corp.

Project Goal: Work with EnSoft to develop the next generation of SimDiff, a tool for differencing control software models.

Executive Summary:
Please provide a 300-500 word summary of the final results of the project (text only, 2500 character maximum), including the commercialization status.
EnSoft, an ISU based software tools company at the ISU Research Park, has developed an innovative tool for users of Simulink software. Simulink is a software modeling tool widely used for developing control systems. EnSoft's tool, SimDiff, analyzes Simulink software models and presents the results in an easy-to-comprehend visual form. An animated demo of the SimDiff tool is available at (http://www.ensoftcorp.com/). Initially, SimDiff was developed with partial funding from Rockwell. Initial, objective was to automate auditing of software design models of flight control systems. After its initial development, the scope broadened and eventually SimDiff released by EnSoft in 2005 as a model differencing tool with applications in avionics, automotive, and many other industries that develop complex control software as a critical component of their products.

This project involved research to assist EnSoft in developing the next generation of the SimDiff tool. The work involved developing innovative algorithmic techniques and their prototype implementation. The proposed work was split between work performed at ISU by ISU faculty and students, and some work to be performed at EnSoft.

The SimDiff tool has huge potential for commercialization because of the vast proliferation of software enabled control. Control software is everywhere – in thermostats, watches, cell phones, microwave ovens, cars, tractors, pacemakers, airplanes, spacecrafts, and so on. Control software continues to be harnessed to achieve more functionality and efficiency. Just as imaging technologies allow doctors to look inside the human body to target health treatment, so also the objective of the SimDiff tool and the underlying analysis technology is allow engineers to look inside the highly complex control software so they can target their work and perform more efficiently. Currently, SimDiff is the only tool available in the market to anlyze control software models.

Within 18 months of its introduction, close to 200 copies of SimDiff have been licensed by 26 companies in 7 countries including USA, Austria, Germany, England, Italy, Romania, and Japan; and 70 other companies are conducting trials of SimDiff, the vast majority of which are included in the Global Fortune 500. Executives from major car manufacturers in Japan now visit EnSoft to discuss company-wide adoption of SimDiff and the possibility of developing other tools for accelerating designs of new cars.

External Funding:
Please list all of the applications for external funding that you have applied for using the results from this GIVF project, including the status (awarded, denied, pending).
Two proposals were submitted one to NSF and another to the Advanced Technology Program (ATP) within National Institute of Standards and Technology (NIST). The NSF proposal was not funded. The ATP proposal is currently under review.

Intellectual Property

Please list any invention disclosures (ISURF number and one-sentence description) related to the project that existed PRIOR to the start of the project:

Please list any invention disclosures (ISURF number and one-sentence description) that were made as a result of the project:

Please indicate if you intend to file future invention disclosures related to this project (one-sentence description):

While working on this project, we made significant advances in a related area of online software maintenance. We have had preliminary discussions with ISURF and the possibility of filing a patent application is being explored.

Publications and Presentations

Please list all publications and presentations (published or pending) that included the results of this research:

1. Jason Stanek, S.C. Kothari, T.N. Nguyen, Online Software Maintenance for Mission-Critical Systems, 22nd IEEE International Conference on Software Maintenance (ICSM 06), pp. 93-103, Philadelphia, October 2006. (published)

2. Jason Stanek, S.C. Kothari, Software Differencing with a Suffix Tree based Graph Alignment Technique, submitted in May 2007 to the CASCON conference.

3. Jason Stanek, S.C. Kothari, A Graph Alignment Algorithm for Incremental Validation of Simulink Models, submitted in June 2007 to the Automated Software Engineering conference.

Honors and Awards

Please list all honors/awards/special press/etc. related to this project.

Pneumatic Continuously Variable Natural Frequency and Damping Isolator for Active Suspensions

Principal Investigator: Atul Kelkar
Industry Partners (company names only): Vibroaccoustic Solutions, Inc.

Project Goal: Advancing the state-of-the-art in vibration isolation technology and accelerating the technology transfer to commercial market for an innovative vibration isolation concept based on active/semi-active purely pneumatic isolation system.

Executive Summary:
Please provide a 300-500 word summary of the final results of the project (text only, 2500 character maximum), including the commercialization status.
The research and development activity from this Grow Iowa Values Funds project has resulted into a joint Intellectual Property disclosure (#03492) between VSI and ISU entitled - "Vibration Isolation System - LCPID (Low Cost Pneumatic Isolation Device)". ISU and VSI were engaged right from beginning with potential end user, namely Link Manufacturing, Sioux City, IA, who are major suppliers of truck cab suspensions to U.S. market. The development of LCPID was focused on addressing the unmet need of the market in the vibration isolation in truck cab/seat suspensions. VSI's intellectual property on Continuously Varying Natrual Frequency and Damping (CVNFD) technology combined with the over-the-road field testing conducted by VSI and the performance targets given by Link led to the design of a new "low-cost" purely pneumatic isolation device. This project involved an extensive laboratory testing (simulations and experiments) for several versions of LCPID design including head-to-head comparison with exisitng truck cab suspension. The orders of magnitude difference in the performance of LCPID lab prototype witnessed by Link rapidly accelerated the project to the field testing. The field tests validated the lab results. Currently, Link is conducting cost analysis and adressing packaging and maintenance issues. The mechanical fatigue issues in LCPID design has led P.I. to further develop the isoltaion concept which has led to another IP disclosure through ISURF. The follow-on GIVF project if funded will focus on lab testing and commercial prototyping of this new design.

The LCPID technology has numerous other applications including suspension for operator seats in ag and construction equipment, driver seats for trucks and off-road vehicles, wheelchairs for handicaps, and vehicle suspensions. VSI has strong ties with Sear Seating and Mid-American Energy, who are actively looking for suspension solutions for seats and cabs. VSI's suspension division is working with Link for potential commercialization of LCPID in cab, seat, or sleeper bunk applications. VSI is also working with Mid American who is looking for retrofitting a fleet of over 800 trucks with the new suspension designs. Link Mfg. is expecting to introduce their new line of cab suspenesions in 2008 with a low cost purely pneumatic revolutionary technology. VSI is planning to introduce LCPID technology in the market either in cab, seat, and sleeper bunk suspensions within next two years.

External Funding:
Please list all of the applications for external funding that you have applied for using the results from this GIVF project, including the status (awarded, denied, pending).
Proposal: "Fundamental Investigation of Active Pneumatic Isolation Concept", Agency: NSF, Amount: $280,596 (not funded).

Intellectual Property

Please list any invention disclosures (ISURF number and one-sentence description) related to the project that existed PRIOR to the start of the project:
-

Please list any invention disclosures (ISURF number and one-sentence description) that were made as a result of the project:
ISURF# 03492: "Vibration Isolation System - LCPID (Low Cost Pneumatic Isolation Device"

Please indicate if you intend to file future invention disclosures related to this project (one-sentence description):
The further enhancements to vibration isolation technology emerging from this project are in the process of new Intellectual Property disclosures.

Publications and Presentations
Please list all publications and presentations (published or pending) that included the results of this research:
Presentation to Link Manufacturing - (Sept. 06) "LCPID - Low end version of CVNFD".

(Due to Patent Disclosure on file no public presentations and/or publications were actively pursued.)

Honors and Awards
Please list all honors/awards/special press/etc. related to this project.
None.

(In spite of repeated request from ISU publicity department to showcase LCPID technology through press release due to the Patent Disclosure (#03492) on file no press and or award activity was actively pursued.)

Viral replicon particle discovery research for development of improved vaccines for swine

Principal Investigator: Matthew M Erdman
Co-PIs: Maynard Hogberg
Industry Partners (company names only): Sirrah LLC, AlphaVax Inc

Project Goal: To prove the efficacy of RS and RP vaccines in swine and position Sirrah, LLC as a credible choice for an exclusive field of use license for economically important diseases of swine.

Executive Summary:
Please provide a 300-500 word summary of the final results of the project (text only, 2500 character maximum), including the commercialization status.

This project represents the first time pigs have ever been vaccinated with replicon subunit (RS) or replicon particle (RP) technology. In order to evaluate the effectiveness of these vaccines in pigs we analyzed the antibody response of pigs vaccinated with RP and RS vaccines expressing the hemagglutinin protein of a human strain of influenza virus. The vaccinated pigs had an average antibody titer nearly 1000 times the level needed for protection from disease while the non-vaccinate controls remained antibody negative. These results indicate that RS and RP vaccines can successfully immunize pigs and induce high antibody titers. This proof of concept work supports further development and evaluation of RS and RP vaccines for economically important diseases of pigs including swine influenza virus (SIV), porcine reproductive and respiratory syndrome virus (PRRSV), and porcine circovirus 2 (PCV2).

This project has provided the positive results needed to allow an Iowa startup company to commercialize RS and RP vaccines for swine. Sirrah LLC was founded by Dr. Hank Harris (ISU professor Animal Science) in 2005. The Sirrah management team includes Dr. Harris (Founder and CTO), Dr. Erdman (Director R&D), Stuart Oxer (CFO), and Margaret Prahl (Legal Counsel) and has contributed nearly $205K to the company. Sirrah is operating in the ISU Research Park and has 6 full time employees, including 2 PhDs, and will expand to 10 employees in the coming months.

Based on the results of the project, Sirrah licensed key technology from ISURF and AlphaVax Inc, a human vaccine company in Research Triangle Park, NC. Convinced of the efficacy in swine, AlphaVax exclusively licensed RS and RP technology usage in pigs to Sirrah and has assisted in technology transfer from NC to IA. Sirrah completed exclusive licensure of ISURF #03284 describing the protective antigenic determinants of PRRSV and the basis for Sirrah's first product. Sirrah has started taking orders for RS vaccines and hopes to deliver product in July/August of 2007. These vaccines will be sold under vet-client-patient relationship (CFR107) which allows veterinarians to provide vaccines to animals under their care and prior to USDA licensure. Initial sales are to swine producers located only in Iowa, the top pig producing state in the US. To date Sirrah has sold 32,600 doses of RS vaccine at $5 per dose totaling $136,000. Sirrah is concurrently pursuing USDA licensure for RP vaccines to be completed by 2010.

External Funding:
Please list all of the applications for external funding that you have applied for using the results from this GIVF project, including the status (awarded, denied, pending).

GIVF 2007, $136,000 (pending)
USDA SBIR Phase 1, $80,000 (funded)
IDED EVA, $100,000 (funded)
USDA Formula Funds, $20,000 (funded)

ILHAC, $25,000 (funded)
NPB, $133,000 (funded)

Intellectual Property

Please list any invention disclosures (ISURF number and one-sentence description) related to the project that existed PRIOR to the start of the project:
ISURF #03284, Identification of Protective Antigenic Determinants of Porcine Reproductive and Respiratory Syndrome Virus and Uses Thereof.

Please list any invention disclosures (ISURF number and one-sentence description) that were made as a result of the project:
ISURF #03388, Farm Specific Animal Vaccines not Requiring Isolation of the Specific Infections Agent (partial relation to this project)

Please indicate if you intend to file future invention disclosures related to this project (one-sentence description):
Future disclosures are planned that directly describe use of RS and RP technology for other significant diseases of swine including Porcine Circovirus 2, Haemophilus parasuis and Mycoplasma.

Publications and Presentations

Please list all publications and presentations (published or pending) that included the results of this research:
1. Viral replicon particles: a new technology for swine vaccines. Journal submission pending.
2. Immunogenicity of a virus like replicon particle expressing the influenza hemagglutinin protein in pigs. Ames, IA (2007).
3. Vaccines: Present and Future. Proc AASV, Orlando, FL. (2007).
4. Sirrah LLC: Innovative vaccines to improve animal health and productivity. VNI, Des Moines, IA (2006).
5. New vaccine technologies: review and research update. Swine Dis Conf, Ames, IA (2006).
6. Replicon particle co-expression of PRRSV GP5 and M proteins. Proc Int PRRS Symp, Chicago, IL (2006).
7. Immunization of swine with replicon particles: proof of concept. Proc Int PRRS Symp, Chicago, IL (2006).

Honors and Awards

Please list all honors/awards/special press/etc. related to this project.
2nd place Pappajohn business plan competition. Business plan includes the supporting results provided by this GIVF project.

Protein Micropatterning on Microsensors to Quantify Cell Cytotoxicity of Adherent and Non-adherent Cells

PI: Surya Mallapragada
Company: Alan Moy, Cellular Engineering Technologies

Awards received: Big 12 Rising Star award, ISU Mid-Career Achievement in Research Award

External funding applied for (indicate received/denied/pending): NIH STTR grant (submitted April 2007)

Progress report (300 word maximum): We had originally planned to test microstamping appropriate proteins onto the surfaces of the sensors developed by Cellular Engineering Technologies. However, due to delays in fabrication of the sensors and their testing, we had been able to successfully test the microstamping of appropriate proteins only on polymer substrates. In addition, we have also used a protein ink-jet printer to print various proteins directly onto surfaces. Both these techniques give us the ability to selectively immobilize proteins in micron-sized dimensions. Recently, we received indium tin oxide (ITO) coated electrode substrates that we were able to also successfully test these techniques on. In addition, we have successfully developed silanization techniques to attach proteins to the ITO substrates. Using this technique, we have shown that CD34 antibodies can be attached to the ITO electrode substrates covalently, and verified this by atomic force microscopy. In addition, we have cultured CD34+ cells on these substrates and shown good attachment. Our collaborators at Cellular Engineering technologies are now investigating selective cell adhesion using mixtures of two different cell types. We will then pattern different proteins on different parts of the ITO electrodes to enable selective adhesion of different cell types on different regions of the same electrode. We have also submitted a NIH STTR proposal jointly with Cellular Engineering Technologies.

Nanotechnology for Label-Free Detection of Pathogen-Specific Nucleic Acids

PI: Byron Brehm-Stecher
Companies: Bioforce Nanosciences

External funding applied for (indicate received/denied/pending): Pending SBIR for food safety applications of this technology.

Progress report (300 word maximum): Due to unforeseen changes in the intellectual property environment surrounding peptide nucleic acid (PNA) probes, we no longer have access to an assured supply of these key molecules. Therefore, we have modified our original PNA-based approach to include DNA-based probes arrayed to the surface of glass chips using Bioforce Nanoscience's NanoArrayer system. We have evaluated the binding behavior and signal-to-noise ratios for pathogen-specific oligonucleotides functionalized using several different chemistries, including thiol-, biotin- and amino-labled molecules. In addition to these oligonucleotide attachment chemistries, various means for functionalizing the glass array substrates have also been investigated, including nano-sputtered gold, streptavidin, 3-aminopropyltriethoxysilane (APTES) and Corning GAP II (another amino silane chemistry). It was found that the best attachment chemistry and highest signal-to-noise ratio was given by amino-modified oligonucleotides attached to the array surface using APTES chemistry. A DNA oligonucleotide capture probe targeting the 16S rRNA of *Salmonella* was dual-labeled with an amino modifier at one end and fluorescein at the other end and arrayed to the surface of an APTES-functionalized slide. Arraying quality and extent was monitored via the green fluorescence of fluorescein. Two Cy3-labeled DNA probes, one complementary to the *Salmonella* capture probe and one containing a "nonsense" sequence, were used to assess capture probe functionality at the surface of the chip. After hybridization, the complementary probe bound to the surface of the array, while the "nonsense" probe did not, demonstrating selective, hybridization-mediated capture of the target sequence. A set of primers and probes designed to simultaneously detect multiple pathogens (toxigenic *E. coli*, *Salmonella* spp., *Listeria monocytogenes* and *Staphylococcus aureus*) was adapted from the literature and array-based capture probes specific for these four amplicons designed. The next phase of our work will involve assessing the abilities of these capture probes to selectively bind target amplicons from the multiplex PCR reaction.

Development of Novel Digestion-Resistant Starches from Corn to Combat Human Disease

PI: Martha James, Alan Myers

Publications/presentations based on project:
1) Poster presentation: October, 2006, Annual Meeting of the American Association of Cereal Chemists, San Francisco, CA; Claire Moallic, Alan Myers, and Martha James; Development of Novel Slowly Digestible Starches from Maize.
2) Oral presentation, May, 2007, ISU Plant Sciences Institute Board of Directors; Diane Birt and Martha James; Healthy Carbohydrates: Slow Release Cornstarch for Preventing Diabetes, Obesity, and Cancer.
3) Oral presentation May, 2007, Advanced Food for Health Symposium, Resistant/Slowly Digestible Starch, Ames, IA: Alan Myers, Development of novel, slowly hydrolyzed starches by genetic engineering of maize.

Awards received: None

Invention disclosures:
1) Disclosure to ISURF, February, 2007: Short-chain amylopectin starch 1 (SCAPS1)

External funding applied for (indicate received/denied/pending):
Denied: None
Received: USDA special grant to the ISU Center for Designing Foods to Improve Nutrition
PIs: Martha James, Suzanne Hendrich, and Alan Myers
Title: Production and characterization of new slowly digestible starches by genetic modification of specific starch biosynthetic enzyme activities in maize plants
Duration: July 1, 2007 - June 30, 2008
Award: $30,000
Pending: None

Progress report:
Significant progress was made in this period toward achieving project milestones. Characterization of physical and functional properties of the prototype long-chain amylopectin starch (LCAPS1) was completed. Three types of laboratory analysis confirmed LCAPS1 is digested more slowly (~60% the rate of normal starch) in both the raw and cooked states, which is important because starch typically is cooked when it's incorporated into food. Heritability of the slow digestion trait was confirmed by examination of LCAPS1 produced in plants grown in the winter nursery.

A larger scale wet-milling operation was performed, yielding 2 kg LCAPS1 starch for further testing. Starch-based food products were designed and a pudding-type food was selected for trials based on the nature and number of ingredients, ease of production, and palatability. LCAPS1 and control puddings were produced in the laboratory of ISU Food Scientist Dr. Terri Boylston and human feeding trials were conducted in the laboratory of ISU Food Scientist Suzanne Hendrich. In these trials, 30 male volunteers consumed a pudding made from LCAPS1, control B73 starch, or commercial cornstarch. Blood was drawn every 15 minutes over a two-hour time period. Unfortunately, blood glucose levels were not significantly different following consumption of LCAPS1-based pudding compared with the controls. Consequently, results of this particular *in vivo* test did not agree with results of the *in vitro* tests showing slower LCAPS1 digestibility. Possible problems to be addressed in the next research period include improper design of the food product, insufficient degree of retrogradation of the starch, or insufficient degree of change in the starch chain profile.

Two additional types of LCAPS plants were propagated in the winter nursery and *in vitro* analyses of their starch properties were initiated. These include plants homozygous for the maize *amylose extender* mutation in combination with LCAPS1 (generating LCAPS2) and plants homozygous for the maize *dull1* mutation in combination with LCAPS1 (generating LCAPS3).

Finally, Starch Design, LLC was organized in January 2007 to commercialize the new starches. A business consultant and an attorney were engaged for this start-up phase to assist in the formation of a business plan and licensing of intellectual property.

Retooling Ethanol Industries: Integrating Ultrasonics into Dry Corn Milling to Enhance Ethanol Yield

PI: David Grewell **Co-PIs:** Samir Kumar Khanal and J (Hans) van Leeuwen

---

Publications/presentations based on project:
Journal Article:
Samir Khanal, Melissa Montalbo, J (Hans) van Leeuwen, Gowrishankar, Srinivasan and David Grewell, Ultrasound Enhanced Glucose Release from Corn in Ethanol Plants, *Biotechnology and Bioenegineering (in-press).*

Conference Papers:
Samir Kumar Khanal, Melissa Montalbo, J (Hans) van Leeuwen, Gowrishankar Srinivasan, David Grewell, Enhanced Glucose Release from Corn in Ethanol Plants by Ultrasonic Pretreatment, International Conference on "21st century challenges to sustainable agri-food systems, Biotechnology, Environment Nutrition, Trade and Policy" 15th- 17th March 2007 in Bangalore, India.

Samir Kumar Khanal, Melissa Montalbo, J (Hans) van Leeuwen, Gowrishankar Srinivasan, David Grewell, Ultrasonic Enhanced Liquifaction and Saccharification of Corn for Bio-Fuels, ASABE Annual International Meeting, 17-20 June 2007, Minneapolis, Minnesota.

Awards received: None
Invention disclosures: None

External funding applied for (indicate received/denied/pending): Typo in Ultrasonics career and Degradation

Status	Title	Sponsor	Amount	PI	Co-PI(s)
Pending	*Spectroscopic Analysis during Lignocellulose Deg-radation by Ultrasonic and Ammonia Treatments*	DOE	$2,130,000	R. S. Houk	Dr. Edward Yeun, Dr. Tae Hyun Kim, Dr. Nicola Pohl, Dr. Klaus Schmidt-Rohr
Pending	*Enhanced Enzymatic Digestibility of Cellulosic Biomass for Bio-fuel Production*	DOT	$526,508	D. Grewell	Mike Ladisch, Nathan Moiser, Tae Hyun Kim
Pending	*CAREER: Ultarsonic Enhancement of biofuels*	NSF	$517,839	D. Grewell	

Progress report (300 words maximum):
As already noted, the use of ultrasonics enhanced the release of fermentable sugars from corn slurry. In order to gain insight into the fundamentals , experiments were conducted using the best ultrasonic pretreatment conditions identified to date; 20 s at 475 W/35 ml with enzymes and 40 s at 475 W/35 ml without the enzymes . The samples were then saccharified at various time intervals (initially 2 hours) up to 96 hours. As seen in Figure 1, the untreated sample (control) had a maximum glucose yield of 47 g/L and a reaction rate coefficient of 0.0519 1/h. In contrast, when treated for 40 s, the reaction rate coefficient was three –fold higher larger (0.186 1/h). In addition, the final sugar yield increased from 47 to 57 g/L, corresponding to 21% increase. A similar trend was also seen at the shorter treatment time (20 s with alpha and glucoamylase enzymes), where the yield was again increased but the rate was only slightly improved. There is no conclusive reason for the lower impact on the reaction rate at the lower power setting, but it is believed to be related to the lower energy intensity and cavitation.

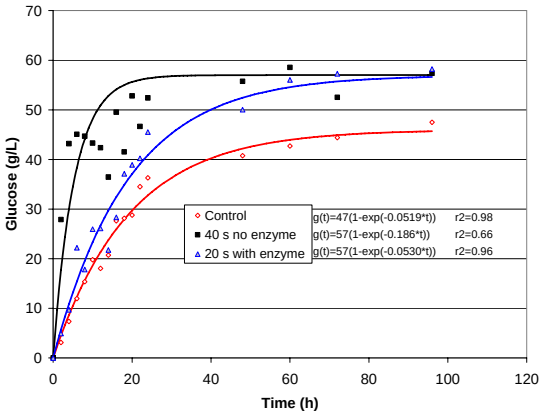


Figure 1 Glucose release as a function of saccharification time with various pretreatments

Selected samples were taken from these experiments prior to saccharification and characterized with SEM. Figure 2(a) shows intact starch crystals for the control group (no pretreatment). In contrast, at the same magnification, it is seen that with 20 s of treatment, there was some evidence of gelatinization where the crystals were grossly deformed. With 40 s of pretreatment (Figure 2(c)), there were no remaining crystal structures visible. It is important to note that the images were taken in an enviromental SEM system that allowed imaging of wet samples. At this time, while it appears that the ultrasonic energy promotes gelatinization, additional tests, including DSC studies, are needed to confirm gelatinization. There is the possibility that the structure assumed to be gelatinized starch is dispersed protein.

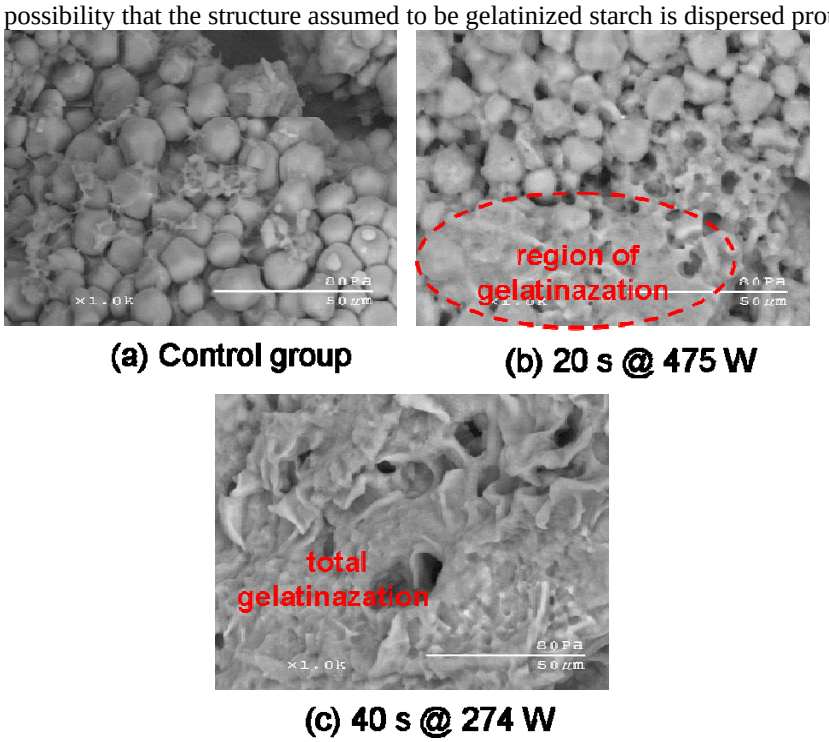


Figure 2 SEM images of starch from ground corn with various pretreatments (x1000)

In summary, the ultrasonic pretreatment appears to promote gelatinization, enhances the rate of starch to glucose conversion and increases the overall yield of sugar from starch. The project is on schedule with beta testing (at ISU) scheduled over the next 3-4 months.

FY07 FUNDED PROJECTS

Update period: January 01, 2007 – June 30, 2007

Principal Investigator	Project Title	Award Amount
Mary Holz-Claus	Corn-Biomass Composite Fuel Pellets: An Industry-University Partnership	$ 49,380
Samir Khanal	Ultrasonication in Soy Processing for Enhanced Protein and Sugar Yields and Subsequent Nisin Production	$ 81,977
Vikram Dalal	Collaborative Research on High Performance Stable Amorphous Silicon- Germanium Solar Cells	$ 63,406
Manjit Misra	Commercialization of a Continuous In-Line Flow Meter	$ 74,480
Larry Johnson	Commercializing New Fractionated Soy Proteins to Improve Human Health and Food Quality	$ 167,717
Jay-Lin Jane	Development of Resistance and Low-Caloric Maltodextrins from Cornstarch	$ 96,273
David Grewell	Ultrasonic Assisted Exfoliation of Bio-Renewable Polymer Nanocomposites with Micro-Cellular Structures	$ 72,681
Richard Larock	Commercialization of a Corn/Soy Oil-Based Composite Hog Feeder	$ 96,000
Robert Brown	Gasification Technologies in Support of Biorefineries	$ 132,247
Jacek Koziel	Purification & Quality Enhancement of Fuel Ethanol to Produce Alcoholic Beverages with Ozonation & Activated Carbon	$ 81,848
Hand van Leeuwen	Converting Low Value Thin Stillage from Dry Milling Ethanol Plans into High Value Fungal Biomass	$ 82,070
Pamela White	Designing corn lines with dietary fiber to produce ethnic foods with enhanced health benefits	$ 67,960
Suzanne Hendrich	Flaxseed lignans for health	$ 66,960
Ruth MacDonald	Role of complex carbohydrates from soybeans in inflammatory bowel disease	$ 65,000
Anumantha Kanthasamy	Development of Novel Gene Therapy Approach for Parkinson's disease by Targeting a Cleavage Site of a Proapoptotic Kinase	$ 50,000
Don Reynolds	Concept paper for Biosafety Level 3 (BSL3) facilities at Vet Med	$ 38,000

High performance solar cells

PI: Vikram L. Dalal

Publications/presentations based on project:
At ICANS in August 2007

Awards received: Iowa Energy Center

External funding applied for (indicate received/denied/pending):

DOE-BES: Pending; NSF-will be sent in the September and October round; PRF-will be sent in September round; NSF-MRSEC-Preproposal sent to VP Research

---

Progress report (300 word maximum):
We have continued our collaborative research with Powerfilm, Inc. of Boone, Iowa. The following describe the highlights of our research with them.
1. As we described in an earlier report, we succeeded in improving the current collection efficiency of Powerfilm devices by 14% by using different reflector from what they were using. They have changed the design of their back reflector to implement this improvement into production.
2. We had suggested in our proposal that alternative a-Si with lower bandgap may be a suitable material for use in Powerfilm devices. At that time, we only had preliminary data on film properties, not on devices. Now we have data on devices with the lower bandgap a-Si deposited using a different plasma condition than traditionally used for a-Si devices. The devices work well as PV devices, and thus we have proven our concept of using a lower bandgap a-Si.
3. We had suggested in the proposal that tandem junction cells with the new material, or with (Si,Ge), may be the approach towards higher efficiency than currently possible. Towards this end, we have started research on tandem junction devices. We have successfully deposited standard a-Si tandem junction cells in our reactor, which requires careful design of interfaces between the two cells. We have solved this interface problem, and can make devices with good fill factors and voltages. To make and analyze tandem cells, we had to add several new experimental setups to our laboratory, and we have done that. This preliminary work should be of great help in making the next generation of tandem cells for Powerfilm.

Thus, we are right on target for developing higher performance solar cells that Powerfilm can implement in production a few years down the line. They have already implemented one of our improvements.

Corn-biomass Composite Fuel Pellets: An Industry-University Partnership

PI: Mary Holz-Clause
CoPI(s) Douglas Stokke, Daniel Burden

External funding applied for (indicate received/denied/pending): A USDA Rural Development Pass-Through-Loan-Guarantee application to assist the ongoing expansion of the fuel-stove production facility in Pella, IA, has been submitted by the Iowa Area Development Group.

Progress report (300 word maximum):

A patent application regarding the architecture of the extrusion die has been applied for by LDJ, Landers Machine, and Gary Wobler under the name of Ag Pellet Energy. Additionally, a filing for patent-protection currently is underway on a 100 percent pellet processing system for both fuel and feed applications. Ag Pellet Energy and Landers Machine have introduced this concept to the ethanol industry and are forming a new company, Ag Fuel & Feed, which will be based in Iowa. The "100 percent DDG Pellet and Processing System" is designed to be located at or near ethanol plants. Marketing the technology as a system for sale to ethanol plants was initially proposed by the ISU Extension Value-added Agriculture Project.

Ag Pellet Energy is now focusing on their "100 percent DDG Pellet" to serve both the fuel and feed markets; with the fuel market changing from home and light-industrial application to large-scale power co-generation systems. In March, 2007, a test-burn was conducted at the Wisdom Station power plant, Spencer, Iowa, owned and operated by Corn Belt Power Cooperative, Humboldt, Iowa. The test burn consisted of mixing 10 percent of Ag Pellet Energy's DDG Pellets with 90 percent coal at the power plant. Although the plant did not achieve full generation output with the fuel blend, a reduction in emissions (percent opacity, which is the measurement of visual emissions coming out of the stack) was obtained.

Cattle feeding tests were conducted under contract with Dr. Dan Loy, Iowa State University, regarding the analysis of the palletized distillers' grains and examining systems for feeding and delivering them to cattle with positive results. Additional contract research with Dr. Loy is looking at market analysis for this product.

LDJ Industries, Pella, has experienced an ash build-up problem with their automatic-feed burner system in their residential light-industrial stove units. Based on testing lab data, this problem was unforeseen and deemed unlikely. However, they currently are considering a redesign of their burner system as well as simply abandoning the DDG-pellet product for the residential light-industrial stove application.

Commercializing New Fractionated Soy Proteins to Improve Human Health and Food Quality

PI: Lawrence A. Johnson
CoPI(s) (name(s) only): Nicolas A. Deak

Publications/presentations based on project:
American Oil Chemists Society annual meeting (Quebec City, Canada):

- Soy Protein Fractionation Using Gas-Supported Screw-Pressed Soybean Meal. (N. Deak and L. Johnson)
- Compositions and Properties of Gas-Supported Screw-Pressed Soybean Meal. (N. Deak, Z. Nazareth, and L. Johnson)
- Effects of Hydrogen Peroxide on Microbial Safety and Functionality of Soy Protein Isolates (N. Deak, N. Winsetel, and L. Johnson)
- Functional Properties of Soy Protein Isolates Made from Gas-Supported Screw-Pressed Soybean Meal. (Z. Nazareth, N. Deak, and L. Johnson)

Awards received:
None

Invention disclosures:
ISURF filed for US patent on April 13, 2007.

External funding applied for (indicate received/denied/pending):
No new applications

Progress report (300 word maximum):
As reported in December, we completed the first two of five objectives of the grant (proof-of-concept and scale-up, and process cost estimation). In the present reporting period, we focused on the third objective, to prepare a catalog of properties for our protein fractions and to compare those properties with those of existing protein products in the marketplace, which will be our competition. We have completed all of the compositional and functional tests and are evaluating and interpreting the results for the fractions produced in the pilot plant. The catalog will be completed by the end of August. We began to develop methods to test sensory (flavor) properties. During the previous reporting period, we provided large amounts of pilot-plant produced samples to SafeSoy Technologies (objective 4) and they have distributed them to TechnoSigma (Japan) and Cargill and they continue their evaluations. In addition, we have met with representatives of Proliant Inc., a well-known Iowa food protein ingredients manufacturer, and discussed our fractionation procedures. Proliant Inc. is interested in learning more once we finish our catalog of properties. SafeSoy Technologies may need an experienced partner in producing protein ingredients and is exploring options to partner with Proliant and Solae. We are identifying potential new applications for these ingredients (objective 5) and developing testing protocols. SafeSoy Technologies continues to evaluate the marketplace and their competitive advantages. We made numerous presentations at international meetings describing our process and products to facilitate market development. We are preparing 5 journal manuscripts for the work conducted on the project. We are largely on or ahead of our proposed schedule and all of our results are confirming commercial potential.

Gasification Technologies in Support of Biorefineries

PI: Robert C. Brown
Co-PIs: Francine Battaglia, Theodore J. Heindel

Publications/presentations based on project: none

Awards received: none

Invention disclosures: none

External funding applied for (indicate received/denied/pending):

GOALI: CFD Modeling and Validation of Biomass Particle Injection in Fluidized Bed Gasifiers, Theodore J. Heindel, Francine Battaglia and John P. Reardon, National Science Foundation. Denied.

Fluidized Bed Modeling and Validation for Gasification and Pyrolysis, Robert C. Brown, Francine Battaglia and Theodore J. Heindel, ConocoPhilips, 04/01/2007-12/31/2007. Received.

Progress report (300 word maximum):

Alternative bed materials are being investigated to find material that behaves similar to fluidized biomass. The goal is to use an alternative material to increase X-ray penetration and resolution to enhance flow visualization in a fluidized bed. An available 9.5 cm diameter fluidized bed was used for this study. Melamine plastic, ground walnut shell, and ground corncob particles were qualitatively compared to glass beads using X-ray computer tomography (CT) imaging and X-ray radiography. The various beds were compared at three different flow rates, and the ratio of superficial gas velocity to minimum fluidization velocity was constant for each bed material. X-ray CT imaging was used to provide a qualitative view of the local time-averaged solids concentration, and clearly showed differences in fluidization between the materials. Computational fluid dynamics (CFD) simulations were used to predict the fluidized bed behavior for glass beads and ground walnut shell, and were compared with the experimental data. Glass beads were used to validate the appropriate grid resolution for the CFD calculations because the material is well characterized in terms of coefficient of restitution and sphericity. Predictions of ground walnut shell were considered because the material fluidizes uniformly. However, walnut shell is not well characterized and factors such as particle sphericity, coefficient of restitution, and calibration of drag coefficients were investigated to determine appropriate parameters to model walnut shell.

Radiographic images from the experiments and corresponding void fraction contours from the simulations qualitatively agreed for the glass bead hydrodynamics, and the mean bed expansion height was in excellent quantitative agreement. The coefficient of restitution study for the walnut shell particles showed that there was no significant difference in the predicted hydrodynamics of the fluidized bed for values between 0.75 and 0.95. The sphericity study showed that as sphericity increases, the bed fluidized more uniformly. It is postulated that irregular shaped particles may agglomerate during fluidization.

A 10.1 cm diameter fluidized bed with capabilities for single particle injection from a side port will become operational in the next 2 months. This new fluidized bed will be used for single particle tracking studies using X-ray stereography, as well as further void fraction studies using CT imaging. Further numerical studies will also be completed and quantitative comparisons will be made between the numerical and experimental data.

Designing corn lines with dietary fiber to produce ethnic foods with enhanced health benefits.

PI: Pam White, Linda Pollak and Sue Duvick

Publications/presentations based on project:
Awards received:
Invention disclosures:
External funding applied for (indicate received/denied/pending):
Hendrich, S., P.J. White, and L.M. Pollak, Screening System for Digestion-Resistant Starch. USDA Special Grants Program. Center for Designing Foods to Improve Nutrition, ISU. $30,000 funded through 2008.

Hendrich, S., P.J. White, and L.M. Pollak, Screening System for Digestion-Resistant Starch: Effects on Human Fecal Microbes and Short-chain Fatty Acid Production, ISU Plant Sciences Institute. $50,000 funded through 2009.

White, P.J., J.-L. Jannink, and N. Yao. β-Glucan Structure and Interactions Modulate Physicochemical, Physiological and Sensory Functions of Oats. USDA National Research Initiative, Competitive Grants Program. $495,229 funded through 2010.

J.-L. Jannink, P.J. White, M.P. Scott, K. Moore, R. Wise, and O. Anderson. Association genetics of β-glucan metabolism to enhance oat and barley germplasm for food and nutritional function. USDA National Research Initiative, Competitive Grants Program. $500,000 funded through 2011.

Progress report (300 word maximum):
This study aims to develop corn lines with a high concentration of resistant starch (RS) as a dietary fiber that may help control obesity, type II diabetes and gut health, and with quality attributes resembling those of current Latin American corn lines used for Hispanic food products. Resulting corn lines will be used to create healthful food products targeted to the Latin American community. The corn currently being examined is the result of crosses between exotic and high RS Corn Belt lines, aimed to incorporate both the RS and native exotic food quality characteristics. The corn lines are in various stages of growth and development. Some lines were grown in Puerto Rico during Winter 2006-07 and are now being screened to determine RS content. Other lines are being grown during Summer 2007. A procedure for extracting the corn starch and determining the RS percentage has been determined by using the Megazyme Resistant Starch Kit. Analyses of various standards, including commercial high amylose (has high amount of RS) corn starch and normal corn starch, have been completed. These standards also have been analyzed on an instrument called a differential scanning calorimeter, which precisely measures heating characteristics of starches, including a measure of the RS. These standard measurements will be used for later comparison with the exotic crosses. We will be looking at differences between gelatinized (cooked) and ungelatinized starch and the effect of gelatinization on the RS percentage. In the coming months we will complete the initial screening, select the high RS corn lines for further characterization, and finally select lines to use in foods. We also will evaluate attributes present in the corn used in targeted Latin American foods. The last step will be to create a representative Latin American food product that is high in RS.

Development of Resistant and Low-caloric Maltodextrins From Cornstarch

PI: Jay-lin Jane

Publications/presentations based on project: 1

Invention disclosures: 1

External funding applied for (indicate received/denied/pending):

Grow Iowa Values Funding for 2008-09: denied.

Progress report (300 word maximum):

Novel technologies for producing resistant and low-caloric maltodextrins have been developed. Using these technologies, resistant and low-caloric maltodextrin products displaying 50% and greater enzyme resistance have been produced in the laboratory. Products made during the period between January and June, 2007 showed enzyme-resistance ranged from 51% to 97% and the water solubility ranged from 84% to 95%. The weight-average molecular weights of these products ranged from 10^3 to 10^5 Da. These products had white to yellowish color and slight off-flavor. The production process has been successfully scaled-up to kilogram size.

Structures of these and other resistant maltodextrin products have been studied using ^{13}C nuclear magnetic resonance (^{13}C-NMR) spectroscopy. The glycosidic linkages of the laboratory- and commercial-products were characterized on the basis of chemical shifts reported in the literature. Anomeric configurations of the glycosidic linkages in addition to the locations of the linkages, including α-(1→2), β-(1→2), α-(1→3), β-(1→3), α-(1→4), and α-(1→6), have been identified for those products. Alpha and beta configurations can not be differentiated using a traditional methylation method. A 2D NMR combined with enzymatic hydrolysis will be carried out to further understand the structures of the resistant maltodextrins.

One resistant maltodextrin produced in the PI's lab and two developed by Grain Processing Corporation will be tested for their effects on blood glucose response and fermentability in 20 human subjects during July-August 2007. Human subject-study approval has been obtained from ISU, and subjects are being recruited. Final product testing on the resistant maltodextrin developed in the laboratory is being completed by Grain Processing Corp. in early July 2007.

Commercialization of a Corn/Soy Oil-Based Composite Hog Feeder

PI: Distinguished Professor Richard C. Larock

Publications based on project:

Lu, Y.; Larock, R. C. "Fabrication, Morphology and Properties of Soybean Oil-Based Composites Reinforced with Continuous Glass Fibers", Macromol. Mater. Eng. 2007, submitted.

Henna, P. H., Larock, R. C. "Rubbery Thermosets Prepared by Ring Opening Metathesis Copolymerization of a Functionalized Castor Oil and Cyclooctene", Macromol. Mater. Eng. 2007, submitted.

Presentations based on project:

Larock, R. C. "Development of Novel Plastics from Agricultural Oils," Consortium for Plant Biotechnology Research, Washington D.C., February 13, 2007.

Larock, R. C. "Adventures in Biopolymers, Iodine Cyclizations, and Palladium Annulation and Migration Chemistry," First University of Nevada at Reno Chemistry Graduate Student Association Distinguished Lecture Award, Reno, Nevada, February 16, 2007.

Larock, R. C. "Novel Bioplastics and Composites from Natural Oils," Ag-West Bio and National Research Council Plant Biotechnology Institute Third Plant Bio-Industrial Oils Workshop, Saskatoon, Saskatchewan, Canada, February 27, 2007.

Henna, P. H.; Larock, R. C. "Rubbery Thermosets Prepared by Ring Opening Metathesis Copolymerization of a Functionalized Castor Oil and Cyclooctene", 233th American Chemical Society national meeting, March 25-29, 2007.

Larock, R. C. "Adventures in Biopolymers, Iodine Cyclizations, and Palladium Annulation and Migration Chemistry," Tohoku University, Sendai, Japan, May 23, 2007.

Larock, R. C. "Adventures in Biopolymers, Iodine Cyclizations, and Palladium Annulation and Migration Chemistry," Okayama University, Okayama, Japan, May 29, 2007.

Larock, R. C. "Novel Bioplastics and Composites from Natural Oils", 234th American Chemical Society national meeting, Boston, Massachusetts, August 21, 2007.

Valverde, M., Larock, R. C. "Free Radical Synthesis of Rubbers Made Entirely From Highly Unsaturated Vegetable Oils and Derivatives", 234th American Chemical Society national meeting, Boston, Massachusetts, August 19-23, 2007.

Awards received: N/A

Invention disclosures:

Larock, R. C.; Lu, Y. S. "Bio-based Thermoset Plastic Composite Materials and Methods of Making Same", U.S. patent application 60/839,918 (2006).

Larock, R. C.; Henna, P. H. "Ring Opening Metathesis Polymerization of Vegetable Oils", ISURF Disclosure, (2007).

External funding applied for:

"Development of Bioplastic Composites Using Ag Co-product Fillers", Iowa Biotechnology Consortium-USDA, 9/1/06-8/31/07, funded.

"Biorenewable Composites Reinforced with Under-used Co-products from Ethanol Production", Recycling and Reuse Technology Transfer Center, University of Northern Iowa, 7/1/07-6/30/09, funded.

"Novel Renewable Bio-based Rubber Composites from Plant Oils and Agricultural Co-products", Iowa State University, Plant Sciences Institute, 7/1/07-6/30/09, funded.

"Development and Commercialization of Soy/Corn/Linseed Oil Bioplastics", Consortium for Plant Biotechnology Research, pending.

"Practical Waterborne Agricultural Oil-based Coatings", Consortium for Plant Biotechnology Research, pending.

"Novel Waterborne Coatings from Renewable Resources", Nine Sigma, pending.

"Vegetable Oil Copolymers to Replace Petroleum-Based Matrices in Thermosetting Composites", NIST- ATP, pending.

"Pultruded Window Frames from Agricultural Oils", Grow Iowa Values Fund, denied.

Progress report (300 word maximum): During the last six months, we have made great progress on this project. Our work has focused on optimization of 1) the composition of the vegetable oil-based resin, 2) the ratio of the resin and glass fibers, and 3) the processing conditions, such as cure time, temperature, pressure, etc. So far, we have successfully prepared some very hard composites from several different resins (for example, 50 wt % soybean oil, 25 wt % styrene and 20 wt % divinylbenzene or 25 wt % soybean oil, 25 wt % linseed oil, 28 wt % styrene and 20 wt % divinylbenzene) reinforced with 45-55 wt % glass fibers. The tensile strength and Young's modulus are in the range 100-130 MPa and 2.5-5.0 GPa, respectively. These properties meet the requirements for a viable hog feeder. We have also dramatically shortened the cure time of the composites from 24 hr to 10-20 min, with no reduction in the thermal and mechanical properties. These times are much more suitable for a commercial molding process. In addition, the BF_3 initiator content has been decreased from 5 to 3 wt %, again with no loss in properties. Additional issues, such as molding pressure, shelf life of the product, resin stability at room temperature, and pricing of the resin and composites are being investigated.

Promising new biocomposites from a different tung oil-based resin reinforced with different loadings of DDGS and spent germ (40 to 60 wt %), the by-products from dry and wet mill ethanol

processes, respectively, have also been successfully prepared. These biocomposites exhibit a significant increase in their mechanical properties and thermal stabilities. For example, using spent germ as a filler, the Young's modulus of the resulting composites range from 196-867 MPa and the tensile strengths are in the range 5.0-16.0 MPa. The flexural modulus and flexural strengths are in the range 290-1300 MPa and 5.5-25.0 MPa, respectively. Additional properties are being investigated.

Commercialization of a Continuous In-Line Flow Meter

PI: Manjit K. Misra
Co-PIs: Yuh-Yuan Shyy, Alan Gaul

Invention disclosures: Already patented

Progress report (300 word maximum):

A prototype of the flowmeter was installed and tested in the ISU seed conditioning facility. The test apparatus consists of the prototype, a bucket elevator, a 45-bushel holding bin, calibrated slide gate for flow rate control, two way sample diverter valve, and a PC-based data logger. Seed was recycled from the holding bin to the slide gate, through the flow meter, elevator and then back to the bin during continuous operation. Seed samples were collected and weighed at periodic intervals for comparison with flow meter totalized data. A Visual Basic program was developed for collecting the real-time data from the load cell via the data acquisition board.

Load cell calibration at five different standard weights showed that the readings were repeatable and accurate (R^2=0.999 and Error=+-0.13%). The suspension system was also redesigned to reduce the stress and residual force at the end of operation, resulting in substantially better raw data quality.

Prior to the above tests, the unit was first calibrated in the laboratory by using a 20-pound hopper and vibration conveyer with an electronic speed control. Both seed corn and soybean were used for the testing, with no obvious internal flow pattern differences and reasonably accurate total weights for each seed type. The unique configuration of flow meter averaged seed weight during measurement, reducing subsequent software based error-reduction.

Seed corn results indicated that seed flows smoothly throughout the system with a maximum capacity of approximately 50 Bu/hr. The data will be compared with real-time samples, and the calibration equation will be generated for predicting the mass flow and total weight.

This unit is ready for demonstration to potential customers for licensing. A meeting has been scheduled with the manufacturing partner to discuss fabrication of a large scale unit (4-inch diameter with 500 Bu/hr capacity) and testing at their facility.

Flaxseed Lignans for Heart Health

PI: Suzanne Hendrich

Progress report (300 word maximum): Tablet formulations have been developed for the 3 supplements (placebo and 2 lignan doses) and tablets are being prepared. Human subjects approval has been obtained and subjects are being recruited according to the approved inclusion/exclusion criteria. The first cohort of 30 subjects is expected to begin the trial in August 2007, with study completion by March 2008.

Converting Low Value Thin Stillage from Dry Milling Ethanol Plants into High Value Fungal Biomass

PI: J.(Hans) van Leeuwen

---

1. **Publications/presentations based on project:**

Sindhuja, S., Khanal, S.K., Pometto, A.L. and Van Leeuwen, J. (2007) Sindhuja, S., Khanal, S. K., Pometto, A. L. and Van Leeuwen, J. (2007) Use of microfungi for wastewater treatment and production of high value fungal by-products: A review. *Critical Reviews in Environmental Science and Biotechnology*. (by invitation, in press).

Rasmussen, M., Kambam, Y., Khanal, S. K., Pometto, A. L. and Van Leeuwen, J. (2007) Thin stillage treatment from dry grind ethanol plants with fungi. ASABE Annual International Meeting (AIM), Jun 17-20, Minneapolis, MN.

Awards received: Not yet

Invention disclosures:

ISURF #03387 "Purification of Thin Stillage from Dry Corn Milling with Fungi"
This was covered by a provisional patent until last month and a regular patent application was submitted in June 2007, now patent pending.

External funding applied for (indicate received/denied/pending):

Developing an alternative methodology for stillage treatment and resource recovery based on fungal cultivation, GIVF with Poet assistance – denied
Developing an alternative methodology for stillage treatment and resource recovery based on fungal cultivation, Biomass Research and Development Initiative USDA/DoE $800,000 with $200,000 co-funding from Poet - pending
Developing an alternative methodology for Poet's BPX and BFRAC stillage treatment and resource recovery based on fungal cultivation, Poet $300 to $400k - pending

---

Progress report (300 word maximum):

Bioreactors were operated to treat thin stillage, the centrate of the distillation leftovers from a dry-grind ethanol plant, Lincolnway Energy with fungi. The aerated reactors were inoculated with spores of *Rhizopus oligosporus*. Mycelial growth was visible within two days after inoculation. By day 3, the 5-L vessel filled with fungal biomass. The total organic concentration of the thin stillage, characterized as chemical oxygen demand (COD) of 94 g/L, was lowered by 77%, after four days of batch fermentation. Continuous operation could achieve 93% COD removal. Total suspended solids in the samples decreased from 30 to less than 0.1 g/L. Water from thin stillage could be recovered without evaporation, in contrast to current technology, with less loss.

Initial tests were conducted with an airlift reactor, in which the bubbled air itself causes the water and fungi to rise in a draft tube inside the reactor with continuous water recycle in the annulus between the reactor wall and the draft tube. This was done in order to satisfy the oxygen requirements more rapidly. This caused the fungi to grow to large densities within two days and also to grow into pellets, which are denser and readily harvested with mesh screens. It is now possible to operate the reactor with a shorter fungal biomass retention time than the water retention time, facilitating better air transfer and higher production rates.

Ultrasonication in Soy Processing for Enhanced Protein and Sugar Yields and Subsequent Nisin Production

PI: Samir Kumar Khanal

Publications/presentations based on project:
Karki, B., Lamsal, B. P., Grewell, D., Van Leeuwen, J. and* ***Khanal, S. K****. Ultrasonication in soy processing for enhanced protein and sugar yields and subsequent bacterial nisin production.* ASABE Annual International Meeting (AIM), *Jun 17-20, Minneapolis, MN.*

Awards received: N/A

Invention disclosures:
Ultrasonication in soy processing for enhanced protein and sugar yields and subsequent nisin production [US Provisional Patent No. 60/914,502].

External funding applied for (indicate received/denied/pending): N/A

Progress report (300 word maximum):
Several batch sonication experiments were conducted using defatted soybean flakes under controlled temperature conditions. The particle size of sonicated sample decreased by nearly 10 to 15-fold with respect to control at 100% amplitude. The particle size reduction was proportional to power level. The analyses of extract with ultrasound pretreatment under controlled temperature conditions showed improvements in protein yield by 43% and sugar release by 45% with respect to control. These tests showed that temperature did not have significant effect on protein and sugar yields. The effect of sonication on various functional properties of soy protein isolates was also examined. Some preliminary results for ultrasonic treatment at 25% amplitude for 30, 60 and 120 s are presented here. The protein solubility profiles for sonicated and unsonicated (control) soy protein isolates (SPI) were examined. The solubility profiles of all SPIs were typically V-shaped curves with better solubility at either side of protein's isoelectric pH. The samples sonicated for 30 and 120 s at pH 7.0 had protein solubility higher than the controls. The increased solubility of the sonicated SPI over the control was attributed to the production of soluble peptides and increased number of exposed ionizable amino and carboxyl groups during sonication and extraction. The rheological flow behavior was measured using 10% (gram protein/gram water) dispersion. In order to observe the rheological behavior of the sonicated SPI over control, we determined the apparent viscosity profile as a function of shear rate applied. For all samples, increased shear rate was accompanied by decreased viscosity, which was attributed to rearrangement of the molecules in an ordered state and/or to destruction of the original structure. Research is currently underway to examine other important functional properties (e.g. emulsifying properties, protein profile, gel hardness etc.). Evaluation of these functional properties is extremely important to ascertain that ultrasound treatment does not affect the food properties of extracted proteins adversely.

Role of Complex Carbohydrates on Colon

PI: Ruth MacDonald

Progress report (300 word maximum): The goal of the project is to develop a suitable animal model and tissue markers to investigate the role of dietary carbohydrates in colon cell physiology. To address this goal, we have undertaken a series of animal feeding trials using soy-based products. The animal trials have been completed and we are in the process of analyzing tissue samples. In one model, we induced inflammation in the colon that would be similar to that observed in humans with inflammatory bowel disease. The tissues from these animals are being studied for specific markers of tissue damage and changes in cell physiology to determine if the dietary components protected the cells from the insult. We are working on tools to examine cellular changes in the colon of these animals and identifying appropriate biomarkers.

Our long-term goal is to develop a model that will allow us to study a variety of dietary supplements, foods and food ingredients that may be protective of the colon. We anticipate that this model will be suitable for pre-clinical trials of these novel components such that we can work with companies that are developing products for humans.

Development of a Novel Gene Therapy Approach for Parkinson's Disease by Targeting a Cleavage Site of a Proapoptotic Kinase

PI: Anumantha G Kanthasamy

Invention disclosures: In addition to the progress below, we have also formed a small startup company called PK Biosciences. This will foster our efforts to commercialize this and other novel technologies.

Progress report (300 word maximum):

As proposed, we began examining the neuroprotective effect of lentiviruses coding for the PKCδ cleavage motif triplet peptides $QDAM_3$, $DMQD_3$ and $DMQA_3$ in cell culture and animal models of Parkinson's disease. First, we cloned the PKCδ cleavage site sequence in $QDAM_3$ in LentiTopoV5 vector and then generated lentiviruses coding for the $QDAM_3$ triplet peptide. LacZ was used as a negative control. To determine the transduction efficiency of the lentiviruses coding for LacZ and $QDAM_3$, N27 cells were transduced with different titers. Immunocytochemical analysis revealed >80% transduction efficiency. Lentiviruses coding for $DMQD_3$, and $DMQA_3$ but not $QDAM_3$ were found to be protective against MPP^+-induced proteolytic activation and cell death, confirming their neuroprotective effect in cell culture models of Parkinson's disease.

Next we tested the efficiency of lentiviral vectors in animal models. The lentiviruses coding for LacZ were injected stereotaxically into the substantia nigra (SN). Three or 7 days after injection, the mice were sacrificed, and SN were removed and processed. Immunocytochemical analysis revealed weak expression levels of LacZ. To improve the transfection efficiency in the brain, we tested Adeno Vector AAV2-1CMVeGFP from the Gene Transfer Vector Core (GTVC) facility (University of Iowa). However, adenoviral-mediated delivery into the mouse SN also resulted in low expression. Although these viruses are efficiently transduced in cell culture studies, it appears that the effectiveness of these vectors in animal brain is suboptimal. We also cloned $DMQD_3$ and $DMQA_3$ into BamH1 and Mlu1 sites in the PLVPT-tTR-KRAB vector obtained from Addgene.org. This inducible vector has been successfully used for long-term expression of recombinant proteins in the CNS in a tetracycline-regulatable manner without producing toxicity. We have produced the viruses coding for the LacZ, $DMQD_3$, $DMQA_3$ and $QDAM_3$ in HEK 293-FT cells and are currently examining their efficiency in cell culture models before proceeding to animal PD models.

Purification and Quality Enhancement of Fuel Ethanol to Produce Industrial Alcohols with Ozonation and Activated Carbon

PI: Jacek Koziel

Publications/presentations based on project:
(1) Purification and Quality Enhancement of Fuel Ethanol to Produce Industrial Alcohols with Ozonation and Activated Carbon (2007 ASABE Annual International Meeting, Minneapolis, MN June 2007)
(2) Purification of Alcohol with Ozonation and Activated Carbon (Institute for Food Safety and Security symposium, Ames, IA April 2007, Air & Waste Management Association Iowa Chapter meeting, Des Moines, IA March 2007, Biorenewable Resources and Technology Research Symposium, Ames, IA April 2007, and Iowa Renewable Fuels Association meeting, Ames, IA March 2007).

Awards received: Grand Prize for Research from the American Association of Environmental Engineers, May 2007

Invention disclosures:

External funding applied for (indicate received/denied/pending):

Progress report (300 word maximum): We are testing a novel approach utilizing ozone gas and granular activated carbon (GAC), to purify fuel grade ethanol to industrial, pharmaceutical and beverage grade. This process replaces traditional distillation or chemical synthesis. Ozone gas is used to react with volatile organic impurities that could be of health concern and/or impart unpleasant tastes and odors.
The following was accomplished since the last report:

- Industrial partners (Dr. Hans van Leeuwen and Rick Wood, MellO3z) have been very active in providing in-kind contributions with their expertise. Rick Wood has started survey of ethanol industry.
- Ozone removed or reduced particular compounds from ethanol samples effectively. However, there was removable limitation by simple ozonation.
- Ozone could produce ozonolysis byproducts. However, with high dosage of ozone, even some ozonolysis products were oxidized again and removed by ozone itself.
- The efficiency of ozone treatment depended on the purity of ethanol sample. It was easy to purify high contaminated ethanol while it was hard with low contaminated ethanol. However, ozone removed some particular compounds which are of health concern very effectively from both ethanol samples.
- Water contain was required to make ozonation effective. Ozone did not work on 200 proof ethanol samples.

The following was continued research from the last report

- The pure feed gas providing setup improved ozone gas quality significantly. However, it was also found that the ozone generator produced impurities in ozone gas during the ozone generating process. To improve ozone gas quality, a new ozone generator was introduced, which is consisted of less ozone reactive materials. Also, our original ozone generator was designed .It is consisted of only non-ozone reactive materials such as stainless steel, glass, and PTFE. It is expected that purer ozone gas provides more precise data of the purification efficiency.

Ultrasonic Assisted Exfoliation of Bio-Renewable Polymer Nanocomposites with Micro-Cellular Structures

PI: David Grewell
CoPIs: Michael Kessler, Howard Van Auken

Publications/presentations based on project:
Journal Article:
Maria Vlad, Gowrishankar Srinivasan, David Grewell, *Improvement of the mechanical properties of soy protein isolate based plastics through formulation and processing*, International Polymer Processing Journal, In Press.

Conference Papers:
Maria Vlad, Gowrishankar Srinivasan, David Grewell, Improvement of the mechanical properties of soy protein isolate based plastics, *Proceedings of the 65th Annual Technical Conference for the Society of Plastics Engineers* (2007), Society of Plastics Engineers, Brookfield, CT

Gowrishankar Srinivasan, Michael Kessler, David Grewell, Casting of Zein Protein Polymers, *Proceedings of the 65th Annual Technical Conference for the Society of Plastics Engineers* (2007), Society of Plastics Engineers, Brookfield, CT

David Grewell, Maria Vlad, Gowrishankar Srinivasan, Improvement Of The Mechanıcal Propertıes Of Soy Protein Isolate Based Polymers, The Polymer Processing Society 23rd annual meeting, Salvador,Brazil, May 27-31, 2007

Magazine articles:
David Grewell, Mike Kessler, Maria Vlad, Gowrishankar Srinivasan, *Enhancing Plastic from Naturally Occurring Proteins*, Submitted November 2006, SPG Media Group PLC, Brunel House, London W2 1LA, UK

David Grewell, Michael Kessler, and William Graves, *Protein-based Plastics and Applications*, Bioplastics Magazine, Issue 02/2007 (June).

Awards received: None
Invention disclosures: None

External funding applied for (indicate received/denied/pending):

Status	Title	Sponsor	Amount	PI	Co-PI(s)
Funded	*Degradable pots for plants*	Horticultural ResearchInstitute	$14,000	William Grave	David Grewell
Pending	*Protein plastics and application development*	USDA-CSREES	$416,875	D. Grewell	Mike Kessler, Deland Myers

---

Progress report (300 words maximum):
For Zein-based plastic, it was observed that moisture absorption increased with immersion time. However, an unexpected phenomenon of fluctuation in water uptake was observed with both concentrations of nanoclay formulations. It was observed that, initially, water absorption was negative and generally remained relatively low and in some cases remained negative (Figure 1). A possible hypothesis for this observation was that the exfoliated nanoclay distribution acted as a diffusion barrier preventing water from diffusing into the samples.

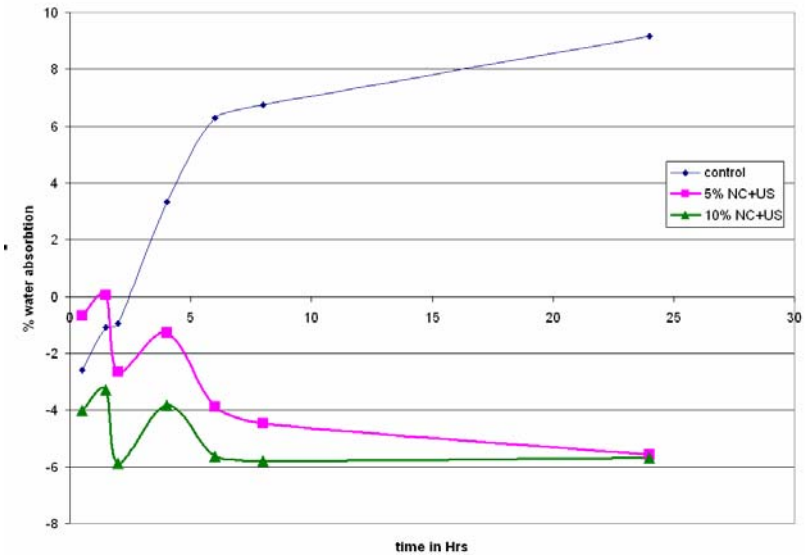


Figure 3 Water absorption by zein sheets (control and nanoclay sheets).

It is further theorized that un-mixed glycerin and ethanol near the surface of the sample dissolved in the water, accounting for the loss in mass. This was based on the observation that the distilled water used for steeping, when evaporated resulted in Langmuir monolayer diffraction patterns on the vessel wall which were believed to be produced by the residuals.

A sprayable formulation of zein protein was developed during this period of the project. Based on discussions with Vermeer Corporation (Co-sponsor of this project), the properties of the final film would likely meet the requirements for hay bale warping. The films are water resistant, non-toxic to cattle and will supplement cattle feed as a source of protein. In August, bales will be coated at Vermeer's test site for beta testing. The tests will involve coating full size bales and visual inspection on a routine basis for film and hay degradation. This task of the project is on schedule.

Several formulations for the replacement of petrochemical plastics of Creative Composites' (Co-sponsor of this project) "lub-sticks" have been developed and characterized. The formulations are injection moldable and relatively strong. However, the compositions are unstable during processing, often resulting in phase separation of the various ingredients. In addition, the tensile strength (1.6 MPa) of the various formulations does not meet the product specifications (~7 MPa). Thus, additional formulations are being developed and characterized. This has prevented initiating prototype testing, resulting in the project being approximately 2 month behind schedule.

Modular BL3 Facility

PI: Don Reynolds

External funding applied for (indicate amount & received/denied/pending):
Kellogg Foundation - $1 million / Denied

Progress report (300 word maximum):

To date, $10,785 has been spent on the planning of the BL3 modular laboratory. This planning has resulted in various sites being considered for the BL3 at the VMRI and at the Vet Med complex. It has been revealed that VMRI is at capacity with regard to utilities and adding more facilities is not possible without major expansion of infrastructure which is beyond the scope of this project. The sites located near the Vet Med complex are being considered and planning is under way in preparation for an upcoming CPC meeting.

Commercializing New Fractionated Soy Proteins to Improve Human Health and Food Quality

PI: Lawrence A. Johnson
CoPI(s) (name(s) only): Nicolas A. Deak

Publications/presentations based on project:
American Oil Chemists Society annual meeting (Quebec City, Canada):

- Soy Protein Fractionation Using Gas-Supported Screw-Pressed Soybean Meal. (N. Deak and L. Johnson)
- Compositions and Properties of Gas-Supported Screw-Pressed Soybean Meal. (N. Deak, Z. Nazareth, and L. Johnson)
- Effects of Hydrogen Peroxide on Microbial Safety and Functionality of Soy Protein Isolates (N. Deak, N. Winsetel, and L. Johnson)
- Functional Properties of Soy Protein Isolates Made from Gas-Supported Screw-Pressed Soybean Meal. (Z. Nazareth, N. Deak, and L. Johnson)

Invention disclosures:
ISURF filed for US patent on April 13, 2007.

Progress report (300 word maximum):
As reported in December, we completed the first two of five objectives of the grant (proof-of-concept and scale-up, and process cost estimation). In the present reporting period, we focused on the third objective, to prepare a catalog of properties for our protein fractions and to compare those properties with those of existing protein products in the marketplace, which will be our competition. We have completed all of the compositional and functional tests and are evaluating and interpreting the results for the fractions produced in the pilot plant. The catalog will be completed by the end of August. We began to develop methods to test sensory (flavor) properties. During the previous reporting period, we provided large amounts of pilot-plant produced samples to SafeSoy Technologies (objective 4) and they have distributed them to TechnoSigma (Japan) and Cargill and they continue their evaluations. In addition, we have met with representatives of Proliant Inc., a well-known Iowa food protein ingredients manufacturer, and discussed our fractionation procedures. Proliant Inc. is interested in learning more once we finish our catalog of properties. SafeSoy Technologies may need an experienced partner in producing protein ingredients and is exploring options to partner with Proliant and Solae. We are identifying potential new applications for these ingredients (objective 5) and developing testing protocols. SafeSoy Technologies continues to evaluate the marketplace and their competitive advantages. We made numerous presentations at international meetings describing our process and products to facilitate market development. We are preparing 5 journal manuscripts for the work conducted on the project. We are largely on or ahead of our proposed schedule and all of our results are confirming commercial potential.

IOWA STATE UNIVERSITY BATTELLE UPDATE

AUGUST 2007

ENDOWED CHAIRS PROGRAM

Of the $2 M allocated for matching funds ($1public:$2private) for endowed chairs, $500,000 in matching funds will be added to $1M in private gift funds received in April 2007 to create the W. Eugene Lloyd Chair in Toxicology in the College of Veterinary Medicine. The College has not appointed a faculty member to this chair and no expenditures have been made from the endowment.

Numerous proposals for endowed chairs related to the Biorenewables area are pending and matching dollars have been discussed with the donors on a first to be funded will be the first qualified for matching basis.

Commitments on these proposals are expected during the fall to utilize the remaining matching funds.

ANIMAL SYSTEMS PLATFORM

Platform Chair: Max Rothschild

PROJECT GRANTS

Title: **Large Animal Genomics Models for Animal and Human Health: Pig model for bone health**

PI(s): **Max F. Rothschild**

Publications/presentations based on project:

An abstract was submitted to International symposium on Animal Genomics for Animal Health that will be held in Paris during 23-25 October 2007**.**

SNP DISCOVERY IN GENES AFFECTING LEG HEALTH TRAIT IN PIGS

O.SUNEEL KUMAR, B. FAN, B. MOTE AND M.F. ROTHSCHILD
Department of Animal Science and Center for Integrated Animal Genomics, Iowa State University, Ames, IA 50011, USA

Sow longevity and mortality is often influenced by moderate to severe lameness issues. It has been reported that up to 44 percent of sows have locomotive problems. To date few genome scans or association studies have be conducted to look at genes controlling lameness and other gait issues. In addition to health problems associated with leg and bone disorders the pig has been suggested to be a possible good model for human bone disorders including osteoporosis which is defined as a systemic skeletal disease characterized by loss of bone strength and deterioration of bone micro architecture that often results in fractures. It is a common disease in aged men and women due to chronic corticosteroid use and menopause respectively. Although many bone studies have focused on calcium, phosphorus homeostasis is also a key factor for bone strength. Hence, the present study has

initially focused on over 53 porcine genes affecting phosphorus metabolism and other candidate genes for SNP discovery. A total of over 188 SNPs have been identified to date. These SNPs are being investigated for their associations with gait and locomotion problems in a set of nearly 2067 commercial pigs scored for various leg and locomotion traits.

Awards received: **None**
Invention disclosures: **None**
External funding applied for (indicate received/denied/pending): none

---

Progress Report (300 word maximum):

This grant supports research using the pig as an animal model to predict bone disorders in both pigs and humans. Initially during this period, the work was concentrated on the examining genes which are likely to influence phosphorus metabolism. We performed single nucleotide polymorphism (SNP) discovery in heavy bone and light bone pig lines. In this regard, 28 genes were selected and analyzed for SNPs. This initial phase of work was included in an abstract that was written for International Symposium on Animal Genomics for Animal Health. Later, the selection of genes was expanded in broader categories to include candidate genes affecting the leg structure and back disorders including conformation of a normal vertebral column (dip back). Therefore, to this point a total of 50 genes have been selected and 84 SNPs were found. These SNPs are present in 22 out of the initial 50 genes, and another 9 SNPs in 6 genes are being confirmed using standard validation methods. We have a data set of nearly 2000 commercial pigs with various leg and conformation scores which will be genotyped for our genetic markers. We are in the process of developing specialized formats essential for high throughput genotyping. Among these SNPs, a SNP present in DARC gene has shown a significant difference between heavily boned and light boned pigs. This gene is known to be associated with bone growth in humans and further work to verify its role in the pig is underway. Presently additional genes are being selected based on the signaling pathways affecting the bone development, growth and metabolism.

Platform leader Rothschild has met with new groups concerning expanded commercial activities in Iowa. One appears to be considering a start up company

Title: **Animal Systems: Large Animal Genomic Models for Animal and Human Health - Part V**

PI(s): Michael Spurlock

Publications/presentations based on project:
Awards received:
Invention disclosures:
External funding applied for (indicate received/denied/pending):

Progress Report (300 word maximum):

This study evaluated the effects of high-carbohydrate versus high-fat diets on inflammation located in adipose and skeletal muscle of pigs which are genetically predisposed to obesity. Fourteen Ossabaw swine were housed in an Iowa State University facility and our experienced animal caretaker oversaw the daily feeding and care of the pigs. The swine were divided into two experimental groups, one of which was allowed to eat a commercial swine diet ad libitum. The second group was restricted to a quantity of commercial feed that maintained their body weight but did not promote weight gain. The swine were fed in this manner for twelve weeks, and then their diets were switched to high-fat or high-carbohydrate diets for an additional thirty six weeks. The swine were sacrificed and blood and tissue samples were taken to measure markers of inflammation, including sera insulin, non-esterified fatty acids, total cholesterol, glucose, and triglycerides. RNA was prepared from adipose tissue depots for microarray analysis.

Title: Large Animal Genomic Models for Human and Animal Health

Principal Investigator: Heather Greenlee

Publications/presentations based on project: NA
Awards received: NA
Invention disclosures: NA
External funding applied for (indicate received/denied/pending): NA

Progress Report:

We have not yet expended funds that are targeted for transmissible spongiform encephalopathy project. Transmissible spongiform encephalopathies are diseases that have an extended incubation time. Animals that are intended for this study are at the National Animal Disease Center (a collaborator on this project) have been inoculated, and will be at an appropriate post-innoculation time to begin studies within the next 6 months.

Currently we are working to hire a graduate student (who already has a D.V.M.) to begin these studies.

In addition, we now have in place a confidentiality agreement (CA) with iOptics, LLC, a small company in Iowa City, IA. Our discussions since the CA was signed have been working toward the production of two custom cameras that will be used for these studies. We intend to have the cameras in our possession to begin these studies late this year.

INFRASTRUCTURE GRANT

Title: **Large Animal Genomics Models for Animal and Human Health: Pig model for bone health – Infrastructure.**

PI(s): **Max F. Rothschild**

Publications/presentations based on project:

Same as project update above

Awards received: **None**
Invention disclosures: **None**
External funding applied for (indicate received/denied/pending): none

---

Progress Report (300 word maximum): - infrastructure

The infrastructure grant supported the purchase of a piece of equipment to support the discovery of genes using the pig as an animal model to predict bone disorders in both pigs and humans. The equipment was purchased using the entire funds and has been successfully used for the gene discovery and for the single nucleotide polymorphism (SNP) discovery in heavy bone and light bone pig lines. In this regard, 28 genes were selected and analyzed for SNPs. Later, the selection of genes was expanded in broader categories to include candidate genes affecting the leg structure and back disorders including conformation of a normal vertebral column (dip back). Therefore, to this point a total of 50 genes have been selected and 84 SNPs were found. The equipment is now in Rothschild's laboratory in Kildee hall.

Principal Investigator: Matthew Ellinwood

Publications/presentations based on project:
Awards received:
Invention disclosures:
External funding applied for (indicate received/denied/pending):

Progress Report (300 word maximum):

Infrastructure funds have allowed for the requests of bids through FP&M for the improvement of facilities in the Kildee Hall Animal Facilities to allow expanded housing of canine and feline models. Bids were finalized during this past period, and work was begun and has been substantially finished. Specifically a biosecurity airlock foyer has been constructed, and unsealed concrete floors in a large animal room and the new foyer have been epoxy seeled and walls repainted. Caging for dog housing in the facility has been ordered, and the manufacturer has scheduled delivery for the last week of July, 2007. Animals are predicted to move into the facility in August of 2007.

BIOECONOMY PLATFORM

Platform Chair: Robert Brown

PROJECT GRANT

Title: Task 1: Thermochemical Products: Syngas production and clean-up

PI(s): Robert C. Brown

Publications/presentations based on project: None at present time
Awards received: None at present time
Invention disclosures: None at present time
External funding applied for (indicate received/denied/pending): None at present time

---

Progress Report
Task Objective:

The objective of this task is to produce syngas with properties that maximize growth and production of chemo-autotrophic microorganisms.

Summary of Progress to Date:

Raw syngas from the gasification of biomass feedstocks contains many condensable liquid compounds that may inhibit growth and even kill is cases the Rhodospirillum Rubrum cells being used to convert carbon monoxide to hydrogen. The remove these and other compounds from the raw syngas, a new gas cleanup system has been designed and is being installed. The new gas clean-up system includes a pair of mini-cyclones, a hot gas filter, a tar condenser, an impinger train, a vacuum pump, a pair of toxin filters, and a oxygen filter. The mini-cyclones used in this system are designed to remove 95 to 99% of the char in the raw syngas. The remaining char is removed using either a ceramic thimble or a sinter metal hot gas filter. Tars and condensable compounds with a condensation temperature greater than 105°C are removed in the tar condenser. The impinger train is used to remove water and any remaining aerosols that may not have been removed in the tar condenser. Two activated carbon filters serve as a final toxin filter to ensure that all the all the toxic compounds were removed in the previous steps. An oxygen filter and indicator provide the last step of protection to ensure that the syngas is free of oxygen. This gas clean-up system is capable of providing 10 L/min of cleaned syngas to the bioreactor containing Rhodospirillum Rubrum.

In preparation for evaluating the merits of perspective of feed stock such as: corn stover, switchgrass, corn fiber, and distillers' dried grains work is also being completed to upgrade the gasifier. This work includes the addition of a steam generator and such that the gasifier may be operated in the following modes: i) air blown, ii) air/steam blown, and iii) oxygen/steam blown. The biomass feeder is also being redesigned to reduce the difficulty involved with handling ground switch grass and corn stover. Finally, the gasifier instrumentation is being replaced and repaired to facilitate detailed mass balances.

PROJECT GRANT

Title: Task 2. Thermochemical Products: Enhancing gas-liquid mass transfer

PI(s): Ted Heindel (ME) and Brent Shanks (CBE)

Publications/presentations based on project: None at this time
Awards received: None at this time

Invention disclosures: ISURF # 03452 – CO-Liquid Mass Transfer Enhancement for Syngas Fermentation

External funding applied for (indicate received/denied/pending): None at this time

---

Progress Report (300 word maximum):

In the past six months, a microreactor was designed, constructed, and used for CO-water mass transfer measurements in which various nanoparticles were added to nanopure water. Preliminary results suggest that the CO-water volumetric mass transfer coefficients (k_La) are repeatable in the microreactor under different conditions (e.g. gas flow rate and stirring speed). Mesoporous silica (MCM41) nanoparticles with spherical morphology and a diameter of ~200 nm have been synthesized. The BET surface area of the MCM41 nanoparticles is ~1400 m^2/g. Different organic groups such as methyl, phenyl, mercaptopropyl, carboxylpropyl, nitrilpropyl and aminpropyl were used to functionalize the MCM41 nanoparticles. The k_La enhancement when the nanoparticles are added to the system has been measured in the microreactor. Results indicate (1) large silica particles (Degussa, Sipernat 160) with a diameter of 7.0 μm showed negligible k_La enhancement, while MCM41 nanoparticles enhanced the CO-water volumetric mass transfer coefficient by ~55%; (2) the k_La enhancement as a result of MCM41 nanoparticle addition was influenced by the kind and loading amount of the functionalized groups, as well as the nanoparticle concentration in the solution. At a microreactor stirring speed of 300 rpm, CO gas flow rate of 180 ml/min, and nanoparticle concentration of 0.4 wt%, MCM41 functionalized by 5% mole ratio mercaptopropyl showed the strongest enhancement of ~100% (i.e., k_La was increased by a factor of 2), which is hypothesized to be due to interactions between CO and the functionalized groups. During the next six months, we will further enhance the mass transfer rate by focusing on the role of the surface hydroxyl group. Other nanoparticle oxides (alumina and/or silica-alumina) will also be synthesized with different hydroxyl groups and tested for mass transfer enhancement capabilities.

PROJECT GRANT

Title: Task 3: Syngas fermentation pilot facility

PI(s): Alan A. DiSpirito

Publications/presentations based on project:
Do YS, Smeenk J, Broer KM, Kisting CJ, Brown RC, Heindel TJ, Bobik TA, DiSpirito AA. 2007. Growth of *Rhodospirillum rubrum* on synthesis gas: Conversion of CO to H_2 and poly-ß-hydroxyalkanoate. Biotechnology and Bioengineering 97(2):279-286.

Awards received:
Invention disclosures:
External funding applied for (indicate received/denied/pending):

Progress Report (300 word maximum):

Based on previously demonstrated syngas fermentation for the production of polyhydroxy alkanoate (PHA) biopolymers, a continuous syngas fermentation facility was designed and is under construction in Black Engineering. When complete, the new facility will have five benchtop scale (10 L) fermenters in parallel to optimize syngas utilization. First fermenter will test biofiltration system to remove potentially toxic organic compounds from syngas. Syngas from this biofiltration system will be used to feed the remaining four bioreactors used to culture *Rhodospirillum rubrum*. A new particulate removal and gas flow control systems are being installed which will allow continuous monitoring of gas mass flow and pressure balance between gasifier and bioreactors. A clean laboratory for wet chemistry is has been designed to provide on site chemical analysis for syngas fermentation. The major components for this system have been ordered or received. Once all the components have been received, construction of the continuous fermentation system will begin.

In addition to the construction of a new fermentation facility, optimization of fermentation conditions have focused on CO utilization and cost reduction. Resent studies have determined the minimal concentration of CO required for optimal growth rates in stirred take reactors. Under these growth conditions approximately 80% of the CO was utilized. When complete the new fermentation facility was designed to allow for the introduction of a biofiltration system to scrub the remaining 20% of the CO, maximizing CO utilization and detoxifying the exit gas. To reduce fermentation costs, the *R. rubrum* have been cultured on syngas in stirred tank reactors that were not autoclaved. The anaerobic conditions, minimal media and high concentrations of carbon monoxide in these fermentations are very selective and microbial contamination has yet to be a problem.

PROJECT GRANT

Title: Task 4: Thermochemical Products: Ethanol production by combined fermentation and chemical synthesis

PI(s): Thomas Bobik

Publications/presentations based on project: (none)
Awards received: (none)

Invention disclosures: IPDR entitled "Ethanol production by combined fermentation and chemical synthesis." was filed with ISURF.

External funding applied for (indicate received/denied/pending):
Extrenal funding received for an expanded project from Conoco-Phillips and Archer Daniels Midland.

Progress Report (300 word maximum): *Escherichia coli* was successfully engineered to co-produce acetaldehyde and hydrogen from glucose. Acetaldehyde dehydrogenase (*ald*) was cloned via PCR amplification and its DNA sequences were verified. This clone was transformed into *Escherichia coli* and its expression verified by enzymatic assay. Genetically modified *E. coli* expressing ALD was grown on glucose and shown to produce 28% more acetaldehyde than the control. An *E. coli adh*, *ldh* double mutant was constructed by P1 transduction using kanamycin resistance insertions from the KO collection. The *ald* gene was expressed in this double mutant. This increased growth by 20%, enhanced anaerobic production acetaldehyde 195% and elevated hydrogen production 590%. Preliminary HPLC analysis were conducted to identify undesirable by-products that accumulate during co-production of acetaldehyde and hydrogen. This work is ongoing.

PROJECT GRANT

Title: Task 5 - Thermochemical Products: Establish functional genomics of *Rhodospirillum rubrum* metabolism

PI(s): Basil J. Nikolau

Publications/presentations based on project:
Genetic, Biochemical and Physiological Studies Acetyl-CoA Metabolism via Condensation.Huanan Jin and Basil J. Nikolau. Poster presentation, to be made at the American Society of Plant Biology, Chicago, IL, July, 07

Awards received: None to date
Invention disclosures: None

External funding applied for (indicate received/denied/pending):

- Title of project: Annotation of novel enzymatic functions in methanogens
  Funding Agency: DOE-GTL
  Date submitted: March, 2007
  Status: Pending
- Title of project: Development of metabolomics and metabolic flux technology for production of bioplastics and bioenergy
  Funding Agency: Consortium of Plant Biotechnology Research
  Date submitted: June, 2007
  Status: Pending

Progress Report (300 word maximum):

This task has focused on understanding and manipulating the metabolism of *Rhodospirillum rubrum* so as to make this organism more suitable as a platform for the fermentation-based conversion of syn-gas to biorenewable chemicals and biofuels. These manipulations are taking advantage of the genomics platform that is afforded by the fact that this organism's genome is completely sequenced. We have targeted the metabolism of two classes of biorenewable chemicals and fuels: 1) polyhydroxyalkanoate (PHA) as a bioplastic; and 2) monoacyl esters as a biofuel. PHAs are natural products of *R. rubrum* metabolism, which are produced when this organism is grown under a low-carbon nutrition status. Monoacyl esters are not produced by *R. rubrum*, however, such molecules are produced by many other organisms, including plants, algae, some bacteria, and insects and other animals.

For PHA metabolism, we have identified and are characterizing six *R. rubrum* genes that appear to be involved in PHA production. These are labeled:

1. *phaA,* Rru_A0274;
2. *phaB,* Rru_A0273;
3. *phaC,* Rru_A0275;
4. *phaC*-like1, Rru_A2413;
5. *phaC*-like2, Rru_A1816; and
6. *phaJ,* Rru_A2964

Each of these genes has been expressed in *E. coli*, and with the resulting recombinant proteins we have generated antibodies against each gene product. These antibodies will be very useful reagents for authenticating the results of the subsequent genetic manipulations of *R. rubrum*.

Using each of these isolated genes, we have constructed *R. rubrum* strains, which individually over-express each targeted gene. Expression of these transgenes is inducible with carbon monoxide, which makes these strains particularly suitable for use in syn gas fermentation processes. This CO-inducability has been achieved by using the promoter from the *cooFSCTJ*-locus. Finally for each of the targeted genes, we have generated two transgenic strains, which differ from each other relative to the genetic locus at which the transgene has been inserted in the genome; one is at the *cooFSCTJ* locus, the other is at the target-gene locus. These strains are currently being assessed relative to their growth characteristics, and the amount and type of PHAs that are produced.

For monoacyl ester metabolism, we have identified and isolated three monoacyl ester synthase genes from Arabidopsis. As with the PHA metabolism genes, these monoacyl ester synthase genes will be manipulated and will be targeted for expression in our *R. rubrum* strains using the *cooFSCTJ* promoter.

PROJECT GRANT

Title: Task 6: Thermochemical Products: Developing stable bio-oils from fast pyrolysis

PI(s): Robert C. Brown & Justinus A. Satrio

Publications/presentations based on project: None at present time
Awards received: None at present time
Invention disclosures: None at present time
External funding applied for (indicate received/denied/pending): None at present time

---

Progress Report
Task Objectives:

The objectives of this task are to develop capabilities of generating bio-oils under well characterized operating conditions and of characterizing physically and chemically the oil properties that influencing bio-oil stability.

Summary of Progress to Date:

Bio-oil is composed of a complex mixture of oxygenated organic compounds that sometimes yield a product with poor stability over time. The unpredictable stability of the bio-oils is the major impediment in the commercialization of bio-oil utilization. To gain more understanding on the bio-oil generation and parameters that affect the bio-oil stability, in this task a new fast pyrolyzer will be designed and constructed. The new fast pyrolyzer will replace the eight-year old fast pyrolyzer which is difficult to control and requiring excessive maintenance to be operable. The new system will allow carefully controlled experiments to be performed in order to evaluate factors in bio-oil production that affect the stability of bio-oil product. The system will consist of the following sub-systems: a feedstock feeding system, a fast pyrolysis reactor, gas product cleaning and char collection system, a bio-oil product collection system, and a non-condensable gas recycle system. At present time, the fast pyrolysis reactor and the biomass feeding system have been designed and will be constructed. The designs of the remaining sub-systems are currently underway. An air separator system, which uses a PSA technology, is currently being ordered to be used for providing nitrogen for the fast pyrolysis system. It has a capacity of producing 400 L/min (STP) of nitrogen at 99% purity and 120psig. At present, on the average, six large cylinders of liquid nitrogen (at a cost of approximately $2000) were required to operate the fast pyrolyzer every month. The new air separator will eliminate the need of purchasing these costly liquid nitrogen cylinders.

In addition to the new fast pyrolyzer design and construction, in this task an analytical and instrumentation laboratory facility which is dedicated for analyzing and characterizing biomass and biomass utilization products, such as bio-oils, has been set up. The facility occupies three laboratory spaces in Metals Development building, which is located on Iowa State University main campus and owned and operated by US DOE's Ames Laboratory. Approval for the operation of the laboratory facility has been sought and obtained from the Ames Laboratory's Environmental Health & Safety office. At present the following instrumentations have been installed and operated in the laboratory facility:

1. GC/MS (manufacturer: Varian): to analyze chemical composition bio-oil and its derivative liquid products.
2. Viscometer (Brookfield): to determine liquid viscosity
3. Bomb calorimeter (Parr): to determine materials' heating values
4. Karl-Fischer titrator (KEM): to determine water content of bio-oils and its derivatives
5. Centrifuge (Fischer Scientific): to separate multiphase materials
6. Vacuum distillation apparatus (Kontes): to separate distillable liquids

7. Thermogravimetric analyzer/ TGA (Perkin Elmer): to be used for analyzing reactions/processes involving weight loss from solid/liquid materials.
8. Various glass apparatuses for wet chemical analysis
9. Furnaces of various types: muffle, vacuum, and tubular
10. Analytical balances

The following instruments are currently being ordered:

1. Mercury Porosimeter (Micromeritics): to analyze pore size distribution of chars and other solid materials.
2. MicroGC (Varian): to analyze composition of gas product

PROJECT GRANT

Title: Task7: Oleochemicals: Identifying physical and chemical attributes for improved biobased lubricants and fuels

PI(s): L. Johnson, E. Hammond and T. Wang

Publications/presentations based on project: None
Awards received: None
Invention disclosures: None
External funding applied for (indicate received/denied/pending): None

---

Progress Report (300 word maximum):

The ISU project team met twice in Spring 2007 with the collaborators (led by Dr. Lou Honary) at the University of Northern Iowa's National Ag-based Lubricants laboratory. Scheduling problems of some of the participants delayed this for several months. We have signed confidentiality agreements agreeable to both institutions so that unimpeded information sharing is possible. UNI has disclosed the problem on which they would like for us to help them and to form the core collaboration. This involves technical concerns about the burning of biodiesel, which causes coke build up and wear in fuel injectors. The technical approach to solving this problem will require more negotiations between the partners. We have identified a graduate student to work on the project and are awaiting issue of a suitable visa prior to putting this student on the payroll. UNI has supplied us with 5 gallons of high-oleic soybean oil and we are determining the best method of purifying oleic acid from this oil to make low-melting oleates that UNI can tests for various uses.

INFRASTRUCTURE GRANT

Principal Investigator: David Oliver, College of Liberal Arts & Sciences (Victor Lin, Nikki Pohl, Emily Smith)

Publications/presentations based on project:
Awards received:
Invention disclosures:

External funding applied for (indicate received/denied/pending):

Victor Lin
Agency: U.S. DOE (DE-FC26-06NT43023)
Duration: 10/2006-09/2009
Amount: $3,440,615
Title: "Mesoporous Silica-Supported Rhodium Nanocatalysts for Selective Production of Ethanol from Syngas"
Status: Funded.

Agency: U.S. DOE (AL-03-380-011)
Duration:09/2007-09/2010
Amount: $1,800,000
Title: Renewal of an Ames Lab Chemical and Biological Sciences project entitled "Selective and efficient catalysis in 3D controlled environment"
Status: Funded

Agency: NSF
Duration: 09/2007-06/2010
Amount: $1,400,000
Title: (Collaboration with University of Iowa) "NIRT-Self-Assembly of Nanostructures in Silica Based Porous Materials for Biocatalysis and Drug Delivery"
Status: Pending

Agency: U.S. DOE
Duration 10/2007-9/2010
Amount: $3,000,000
Title: Nanostructured Organic-Inorganic Hybrid Long Range Charge Separation System for Photocatalysis and Photovoltaic Application
Status: Pending

Nikki Pohl – all pending

National Institutes of Health Small Business Technology TransferGrant (STTR) Phase II
Expected direct costs for PI's lab over 2 years: $124,568.
Submitted a request with Fluorous Technologies, Inc. (Pittsburgh, PA) for $1,065,049 total.
"Fluorous Solution-Based Synthesis of Peptides and Oligosaccharides"

7/1/07-6/30/08

Healthy Livestock Initiative Competitive Grant (Iowa State University)
$20,000 direct costs. Expected direct cost for PI's lab over 1 year: $5,179.
"The role of surface glycosylation in modulating macrophage and dendritic cell responses to intracellular pathogens"

10/1/07-9/30/10
Department of Energy
$2,130,000 total costs. Expected direct cost for PI's lab over 3 years: $80,000.
"Spectroscopic Analysis during Lignocellulose Degradation by Ultrasonic and Ammonia Treatments"

12/1/07-11/30/10
Department of Energy
$973,084 total costs. Expected direct cost for PI's lab over 3 years: $50,000.
"High Throughput Methods for Determining Cell Wall Composition of Plants"

Submitted May 2007
National Institutes of Health DP2 (2007 NIH Director's New InnovatorAward Program)
Expected direct costs for PI's lab over 5 years: $980,000.
"Development of Automated Oligosaccharide Synthesis"

Submitted June 2007
Howard Hughes Medical Institute
2008 Investigator Award (Amounts not specified at this stage)
"Chemical Glycobiology and Immunity"

Emily Smith

Funded
"Development of Raman and Fluorescence Imaging Methods for the Study of Cellular Processes and Biological Material in Diverse Applications", Society of Analytical Chemist of Pittsburg Starter Grant, funded April 2007-April 2008. **$20,000**

"High-Throughput Raman Imaging Studies of Plant Tissue Arrays for Measuring Cell Wall Content and Degradation", Plant Sciences Institute and Ames Laboratory (DOE), funded July 2007-July 2009. **$60,000**

Pending
"Raman Spectroscopy and Raman Imaging Studies of Bifunctionalized Mesoporous Silica Nanosphere Catalytic Systems", Petroleum Research Fund Type G, submitted March 2007. **$50,000**

"Unraveling and Inhibiting Advanced Glycation End Products (AGE) *in vivo"* NIH: Director's New Innovator Award Program (DP2), submitted May 2007. **$1,500,000**

Denied
"Raman Imaging for the Detection of Latent Fingerprints on Traditionally Hard to Visualize Surfaces and the Measurement of Endogenous Compounds in Fingerprint Residue" Midwest Forensics Resource Center Competitive Research Program Fall 2007, submitted November 2006.

"High-Throughput Raman Imaging Studies of Plant Tissue and Cell Culture Arrays for Measuring Lignin and Cellulose Content" DOE: New Analytical and Imaging Technologies for Multiplexed Screening for Plant Phenotypes, co-submitted with Professor Kan Wang (Department of Agronomy) and Kenneth Moore (Department of Agronomy), pre-proposal submitted January 2007.

Equipment Purchased/Renovations Made:

Progress Report (300 word maximum):

These funds were used to partially renovate research laboratories and to provide essential research equipment for Victor Lin, Nikki Pohl, and Emily Smith in the Department of Chemistry. This support has been essential for these PIs submitting over $13,450,000 in grant proposals. Of these requests the PIs have already been awarded over $5,320,000 in support and the rest of the proposals are still pending. They have already generated over $10 in external funding for each $1 invested.

Principal Investigator: Chris Williams (Ted Okishii, College of Engineering)

Publications/presentations based on project:

1. McCready, Nicolaus; Williams, R. Christopher, "The Utilization of Agriculturally Derived Lignin as an Anti-Oxidant in Asphalt," Mid-Continent Transportation Research Forum, Ames, Iowa, August 16-17, 2007. (Conference Paper)
2. Williams, R.C.; McCready, N., "Synergistic Opportunities for Bio-Energy Co-Products in Asphalt Materials", Federal Highway Administration, Turner-Fairbank Highway Research Center, August 7, 2007. (Invited Presentation)
3. Zemen, Nicholas, "ISU Evaluates Lignin as Additive in Asphalt Manufacturing," Biomass Magazine, June 2007. http://www.biomassmagazine.com/article.jsp?article_id=1172 (Trade Magazine Article)
4. McCready, Nicolaus; Williams, R. Christopher, "Utilization of Agriculturally Derived Lignin as an Anti-Oxidant in Asphalt," 44th Petersen Asphalt Research Conference, Laramie, Wyoming, July 16-18, 2007. (Conference Paper)
5. McCready, Nicolaus; Williams, R. Christopher, "Utilization of Agriculturally Derived Lignin as an Antioxidant in Asphalt Binder," *The World Congress on Industrial Biotechnology and Bioprocessing*, Orlando, Florida, March 21-24, 2007. (Presentation)

Awards received:

Invention disclosures:
Have established a confidentiality agreement with Grain Processing Corporation of Muscatine, Iowa. A similar agreement is anticipated to be worked out with PureVision Technologies of Fort Lupton, Colorado.

External funding applied for (indicate received/denied/pending):

1. Received
   Investigators: Williams and Justinus A. Satrio
   Project: Evaluation of Lignin/Phenol Derived from Bio-oil Production for Use as an Antioxidant in Asphalt
   Sponsor: Iowa Energy Center
   Duration: July 1, 2007 to June 30, 2008
   Funding: $78,802

2. Pending
   Investigators: Williams and Satrio
   Project: Utilization of Bio-Energy Co-Products in Asphalt Materials
   Sponsor: Federal Highway Administration
   Duration: October, 2007 to September, 2010
   Funding: $1,152,280 ($576,140 of cost share)

Equipment Purchased/Renovations Made:
Upgraded a servo-pneumatic testing machine for testing materials associated with bio-energy research.

Progress Report (300 word maximum):

The research team anticipates using the upgraded test equipment in research work that will be under contract within the next 6-12months. A substantial amount of exposure is being received by the research team associated with utilizing bio-energy co-products in asphalt materials and this equipment will further expand their research capabilities and thus research exposure.

Principal Investigator: Terry Meyer (Ted Okishii, College of Engineering)

Publications/presentations based on project: None
Awards received: None
Invention disclosures: None

External funding applied for (indicate received/denied/pending):

- Conoco-Phillips – Bio-Fuel Sprays and Combustion $125000 (received)
- Air Force Research Laboratory – Spray Diagnostics Development $90000 (received)
- Air Force Office of Scientific Research – Spray Diagnostics Development $30000 (received)
- Air Force Research Laboratory - MHz-Rate Flow Imaging $125000 (received)
- NASA - MHz-Rate Temperature Imaging $106000 (received)
- Air Force Research Laboratory – Alternative Fuels for Hypersonics Propulsion (denied)

Equipment Purchased/Renovations Made: 4-Pulse High-Power Nd:YAG Laser System

Progress Report (300 word maximum):

The funding was used to help purchase a laser system capable of performing planar imaging of sprays and combusting flows. This system is capable of producing 4 pulses of high-energy laser light at a rate of 10 Hz in the infrared, visible, and ultraviolet regions of the spectrum. It is also capable of pumping a dye laser and optical parameteric oscillator for generating tunable radiation over a wide range of laser wavelengths for targeting specific molecules of interest. The dye laser and optical parametric oscillator are leveraged under different programs listed above. The laser system is unique at Iowa State and will be used for visualizing bio-oil sprays and for characterizing the bio-oil combustion process in a project currently funded by Conoco-Phillips. It may also be used for studying combustion of gasified biofuels and for studies of biofuel processing (gasification, etc). Two students are currently being funded to work on this project. At this stage the laser is under construction and will be delivered within 8 to 10 weeks. The timing is such that the laser and optical system should be ready for testing in 4 months and will be utilized in the bio-oil sprays and combustion project beginning late 2007 or early 2008. This research is leading to significant interest from other Iowa companies such as Goodrich Turbine Fuel Technologies, who is in the beginning stages of developing fuel nozzles for biorenewable fuels. Finally the equipment will be used to for other spray and combustion related projects targeted at improving efficiency and reducing pollutant emissions of power generation and propulsion systems.

Principal Investigator: Robert Brown

Equipment Purchased and Renovations Made:

Task 3

- Plumbing and flow controller system
- Spectrophotometer
- Fermentation system
- Clean room renovation
- Electriclal work

Task 6

- Fabrication of Pyrolyzer
- Mercury porosimeter
- MicroGC
- Nitrogen Separator

Task 8

- Not ordered yet

Progress Report (300 word maximum):

The equipment was purchased in support of Tasks 1-8 which are being funded via the Battelle Project funds. Updates regarding the use of this equipment can be found above in the Task reports.

Principal Investigator: Joe Colletti, College of Agriculture

Publications/presentations based on project:
Awards received:
Invention disclosures:
External funding applied for (indicate received/denied/pending):

Equipment Purchased/Renovations Made:

Progress Report (300 word maximum):

Funding was approved for a DNA extractor, a Tetrad PCR, and a mass array liquid handler for use by two new faculty hires, Dr. Beavis and Dr. Lubberstedt who will be joining ISU in August 2007 and September 2007, respectively. Equipment specifications will be determined and orders placed after their arrival.

BIOSECURITY

Platform Chair: Manjit Misra

PROJECT GRANT

Title: Protecting Iowa's Economic Growth Through Animal Traceability and Discovery of Natural Antimicrobials. BioScience Alliance of Iowa. Project 1: Discovery of Natural Antimicrobials

PI(s): **A. L. Pometto, Ph.D.**

Publications/presentations based on project:
Awards received: None
Invention disclosures: None

External funding applied for (indicate received/denied/pending):

- Mendonca, A, and A.L. Pometto III. 2007. Antimicrobial Efficacy of a Novel Antimicrobial Skin Cleanser against Foodborne Enteric Pathogens on a Model Skin Surface. IPRT ($12,057) and Northern Filtration Media ($12,065) (Funded)
- Mendonca, A., A.A. DiSpirito, and A.L. Pometto III. 2007-2010. Methanobactin: Natural Antimicrobial for Foodborne Pathogens. USDA/NRI (Food Safety and Quality, 32.0) $399,018 (Not funded).

Progress Report (300 word maximum):
The Antimicrobial and Prebiotic Discovery Initiative activities continue to develop. Following are the accomplishments:

- Dr. William Colonna was hired as the Assistant Scientist II and started working for the Initiative March 3, 2007.
- Completed the purchase and installation of the analytical and preparative HPLC
- Worked with Mark Reuber in getting the organic solvent spray drier operating
- Established a standard operating procedure (SOP) for determining the minimal inhibitory concentration (MIC) for antimicrobials against a five-*Listeria* cocktail
- The Commercial Partners Advisory Council (Kemin and AgResources) met every two months to provide guidance and to discuss relevant topics including methanobactin research and grape seed extract research performed to date.
- Completeed a material transfer agreement with Kemin for methanobactin evaluation.

Also in progress:

- Working with a graduate student on the SOP for evaluating nisin produced from soybean whey
- Working the our collaborating commercial partner Dr. Ifendu Nnanna to build our culture collection of probiotics for prebiotic discovery
- Working with Dr. Paul Domoto in horticulture to evaluate the benefit of the natural phytochemical stimulator and antifungal spray supplied by Dr. Shetty (Amherst BioInnovation [ABI]) for organic grape production
- Working with Dr. George Kraus in the NIH Botanical Center to ordered a preparative HPLC C18-column for our use

We will continue to characterize methanobactin properties, and scale up protocols for methanobactin production to 100-Liter sequential batch fermentations. Finally several of ABI natural extracts and wine pomace extract antimicrobial properties from ABI extract treated grapes will be evaluated.

Title: Protecting Iowa's Economic Growth Through Animal Traceability and Discovery of Natural Antimicrobials. Project 2: **Iowa Livestock Traceability Project (ILTP)**

PI(s): **Dr. H. Scott Hurd, Assoc. Prof., VDPAM, ISU**

Publications/presentations based on project: Presentation to the Board of Directors meeting of Biosciences Alliances of Iowa, January 31, 2007

Awards received: None
Invention disclosures: None
External funding applied for (indicate received/denied/pending): None

---

Progress Report (300 word maximum):

- Identified key barriers to electronic certification, such as reluctance of some auction markets to learn a new system and veterinarians who are not familiar with the latest computer technology.
- Began revising software to on-line from stand alone with system with updates.
- A Team of economists, transportation/logistics experts, and business specialists are working to commercialize business applications and conducting additional data collection.
- Risk mitigation strategies for protecting data integrity and confidentiality were implemented by moving data servers to secure underground location
- Methods to incorporate the ILTP into the Iowa Department of Agriculture and the U.S. National Animal Identification Systems (NAIS) plans are being discussed with IA Department of Agriculture.
- Trained 30 people from multiple veterinary clinics on Internet use and use of the ILTP software.
- Approved for 3 continuing education credits. This training was conducted in partnership with the ***University of Northern Iowa***'s Educational Technology and Training Institute.

INFRASTRUCTURE GRANT

Title: Protecting Iowa's Economic Growth Through Animal Traceability and Discovery of Natural Antimicrobials. BioScience Alliance of Iowa.

PI(s): **A. L. Pometto, Ph.D.**

Publications/presentations based on project:
Awards received: None
Invention disclosures: None
External funding applied for (indicate received/denied/pending): None

Progress Report (300 word maximum):

The floor plan for renovation of room 3379 Food Sciences Building to the Biosafety Level II research lab was drawn up and was approved by the Department of Food Science and Human Nutrition. The Iowa State University Facility Planning and Management Office is overseeing and performing the renovation. Mechanical drawing for electrical, air, gas, and water are being prepared. Completion is expected to be during the fall 2007 semester. Additional electrical outlets for the analytical and preparative HPLC, and for the organic solvent spray drier operation in room1384 Food Sciences Building have been added. Most all the equipment has been purchased. Equipment yet to be purchased, if funding is available after renovation are:

- One preparative HPLC column capable of holding 1-2 gram samples to complement the C18 preparative column purchased by the NIH Botanical Center.
- One anaerobic chamber for culturing *Campylobacter* (food pathogen) and *Brevibacterium* (Probiotic)
- One Growth Curve Bioscreen unit to be located in the anaerobic chamber

The placement of the Bioscreen unit within the anaerobic chamber is being requested by some faculty on campus to provide them with some high throughput equipment for their antimicrobial and prebiotic research with *Campylobacter* and *Brevibactererium*. This would be a unique addition to the Discovery Initiative. Projected completion date is during the Fall 2007 semester.

Principal Investigator: Joe Colletti, College of Agriculture

Publications/presentations based on project:
Awards received:
Invention disclosures:
External funding applied for (indicate received/denied/pending):

Equipment Purchased/Renovations Made:

Progress Report (300 word maximum):

Funding was approved for gene expression equipment, lab renovation, and a field building. To date, none of the Battelle funding has been utilized for the first two items. The field building has been erected with FY07 expenditures totaling $63,830. Work on fixtures and other improvements necessary to make the building operational are expected to be completed fall 2007 at an additional cost of approximately $30,000.

ADVANCED FOOD & FEED

Platform Chair: Ruth MacDonald

PROJECT GRANT

Title: **Nutrition and Wellness Research Center**

PI(s): **Ruth S. MacDonald**

Publications/presentations based on project: 2 meetings at the NWRC

Awards received: 2 industry sponsored research projects funded, 2 in planning phase

Invention disclosures: none

External funding applied for (indicate received/denied/pending):
Received: $ 48,000
Pending: TBD

Progress Report (300 word maximum):

A two day symposium, the first annual Advanced Foods for Health Symposium, was held on May 8-9 at the Gateway conference center in Ames. The conference addressed the topic of Resistant Starches in food and health and was attended by over 100 people. The symposium speakers were experts in the field from the industry and academia. The response to the symposium has been very good. Funding was obtained through donations from industry sponsors, both College of Agriculture and Life Sciences, and Human Sciences, ISU centers and from registration fees – overall the costs were covered for the symposium.

The renovations to the Nutrition and Wellness Research Center building were completed in April 2007. A research project, funded by an industry partner, was begun in June 2007 with 2 other projects in preparation. The projects are to evaluate the efficacy of food products in human health and involve human subject participation.

A search for a Director was undertaken with 2 potential candidates interviewed. A search firm, Baker-Parker was retained to assist with identifying suitable candidates in the nationwide search. Negotiations are underway by the Dean of the College of Human Sciences to recruit one of these candidates.

Presentation of the facility was made to the ISU Research Board of Directors, and Senator Harkin's aides, as well as ISU-related groups.

The center has been staffed by a full time secretary, Stephanie Kasper, who has coordinated the facility and organized the many details of opening a new building. Her salary is provided by the Dean of Human Sciences. A part-time technical support staff member has been involved with setting up the labs and kitchens, Jeanne Stewart. Her salary is currently provided by the Center for Designing Foods to Improve Nutrition. We have therefore been able to retain the funding in the Battelle project for the new Director to use according to his/her needs. We have used limited Battelle funds to pay a student worker 20 hours per week to perform settling in details at the building.

INFORMATION TECHNOLOGY

Platform Chair: Jim Oliver

PROJECT GRANT

External funding applied for (indicate received/denied/pending):

"EVO: Virtual Atom Probe Tomography Network," Krishna Rajan, PI, with ISU Co-PI's James Oliver, Vasant Honavar and Srinivas Aluru, and David Seidman (Northewestern University). National Science Foundation, Engineering Virtual Organization program, $200,000, pending.

"Large-Scale Optimization Using Evolutionary Algorithms on GPU Architectures," Eliot Winer, PI with Co-PI James Oliver, National Science Foundation, $416,974, pending.

"NIRT: Virtual Reality Environment for Designing Bio-nano Mechanical Components and Machines," James Oliver, PI, with Co-PI's Amy Andreotti (ISU) Kazem Kazerounian and Horea Ilies, (University of Connecticut), and Constantinos Mavroidis (Northeastern University), National Science Foundation, $1,400,000, pending.

IIS: Exploratory Investigation of Modular Ontologies. *National Science Foundation,* Vasant Honavar (PI), Giora Slutzki and Doina Caragea (Co-PIs), (2006-2008). $100,000. Received.

Interactive and Verifiable Composition of Web Services To Satisfy End User Goals. Vasant Honavar (Co-PI), Samik Basu (PI), Robyn Lutz (co-PI). *National Science Foundation* (2007-2010). $350,000. Received.

Collaborative Research: Learning Classifiers from Autonomous, Semantically Heterogeneous Distributed Data Sources, National Science Foundation, Vasant Honavar (PI) $449, 000. 2007-2010. Recommended for funding (award pending)

Progress Report:

In January CII principals played a major role in securing ISU's invitation to join the Great Lakes Consortium for Petascale Computation led by the National Center for Supercomputing Applications (NCSA) at the University of Illinois, Urbana-Champaign. This regional consortium is a finalist in the National Science Foundation's "High Performance Computing System Acquisition: Towards a Petascale Computing Environment for Science and Engineering" program, a $500M project to build the ultimate high-performance computer. James Oliver contributed to the proposal and is listed as "Senior Personnel".

April 25-27 the CyberInnovation Institute (CII) hosted the "Emerging Technologies Conference" ETC 2007. This three-day event featured research progress and economic development activities of all CII's research centers and attracted more than 450 attendees.

In May the Center for Information Assurance hosted the second annual "Cyber Defense Competition" for regional high school students at the CyberInnovation Institute's new facilities at 2321 North Loop Drive in Ames. This two-day event was attended by more than 50 students and attracted substantial media attention.

INFRASTRUCTURE GRANT

PI(s): David Oliver, College of Liberal Arts & Sciences (Theresa Windus)

Theresa Windus

Department of Energy (DOE) – ASCR, The Computational Chemistry End Station (ChemES), $1.98M, pending

Department of Energy (DOE) – Basic Energy Sciences, Nanostructured Organic-Inorganic Hybrid Long-Range Charge Separation System for Photocatalysis and Photovoltaic Applications, $3M, pending

Department of Energy (DOE) – Basic Energy Sciences, Ames Laboratory Chemical Physics Program, $3M, pending

National Science Foundation, Simulation of Electronic Non-Adiabatic Dynamics for Reactions with Organic Macromolecules, Liquids and Surfaces, $2.5M, pending

---

Equipment Purchased/Renovations Made:

Progress Report (300 word maximum):

These funds were used to purchase a high performance computer system for the Windus group. Windus works on computer modeling of chemical reactions at the quantum level. She has purchased and assembled the system and is writing software to computer model chemical reactions on the system. So far she has applied for nearly $10,500,000 in external funding. These grants were made possible because of having the high speed computer system funded by this program.

Principal Investigator: Z.J. Wang

Publications/presentations based on project:

1. Z.J. Wang, "High-order methods on unstructured grids for Navier-Stokes equations," Invited review article to appear in Journal *Progresses in Aerospace Sciences*.
2. R. Kannan and Z.J. Wang, "Overset Adaptive Cartesian/Prism Grid Method for Moving Boundary Flow Problems," in press, AIAA Journal.
3. J.P. Bons, S.T. McClain, Z.J. Wang, X. Chi and T. I.-P. Shih, "A Comparison of Approximate Vs. Exact Geometrical Representations of Roughness for CFD Calculations Of Cp and St," in press, *Journal of Turbomachinery*.
4. Z.J. Wang, Y. Liu, G. May and A. Jameson, "Spectral Difference Method for Unstructured Grids II: Extension to the Euler Equations," *Journal of Scientific Computing*, in press.
5. Y. Sun, Z.J. Wang and Y. Liu, "High-Order Multidomain Spectral Difference Method for the Navier-Stokes Equations on Unstructured Hexahedral Grids", *Communications in Computational Physics*, Vol. 2, No. 2, pp. 310-333 (2007).
6. Y. Liu, M. Vinokur, and Z.J. Wang, "Discontinuous Spectral Difference Method for Conservation Laws on Unstructured Grids," *Journal of Computational Physics* Vol. 216, pp. 780-801 (2006).
7. Y. Sun, Z.J. Wang and Y. Liu, "Spectral (Finite) Volume Method for Conservation Laws on Unstructured Grids VI: Extension to Viscous Flow," *Journal of Computational Physic* Vol. 215, No. 1, pp. 41-58 (2006).
8. Y. Liu, M. Vinokur, and Z.J. Wang, " Spectral (Finite) Volume Method for Conservation Laws on Unstructured Grids V: Extension to Three-Dimensional Systems," *Journal of Computational Physics* Vol. 212, pp. 454-472 (2006).

Awards received: None
Invention disclosures: None

External funding applied for (indicate received/denied/pending):

1. Air Force Office Scientific Research, PI, "Implicit and p-Multi-Grid Algorithms for High-Order Spectral Difference Method on Unstructured Grid", **$264,854**, 03/01/2006 – 2/28/2009.
2. Department of Energy, PI, "High-Order Spectral Volume Method for the Navier-Stokes Equations on Unstructured Tetrahedral Grids", $**360,000**, 05/01/05 – 04/28/08.
3. Air Force Office Scientific Research, PI, "Parallel Simulation of Moving Boundary Flow Using Overset Adaptive Cartesian/Prism Grids and DES", $**118,080**, 04/01/05- 05/31/06.
4. Rockwell Scientific/DARPA, PI, "Helicopter Quieting", $**216,000**, 01/01/05 – 11/30/06.

Equipment Purchased/Renovations Made:

- Purchased a computer cluster (DELL with 16 node including 32 processors)

Progress Report (300 word maximum):

- The cluster has been used to secure funding from DARPA, the Department of Energy and the Air Force of Scientific Research. Most of my group's large CFD simulations are being conducted on this cluster.

Principal Investigator: Andrew Hillier

Publications/presentations based on project: Full day symposium entitled "Atom Probe Tomography: Opportunities and Challenges for New Materials Science" held on May 30, 2007. Organized by Krishna Rajan with support from the National Science Foundation, W.M. Keck Foundation and Iowa State University.

Awards received: $120,000 to Andrew Hillier (and B. Narasimhan, K. Rajan, S. Sundararajan) for purchase of sputtering equipment for W.M. Keck Laboratory for High Throughput Atomic Scale Analysis, CBE Department

Invention disclosures: None

External funding applied for (indicate received/denied/pending): $1,600,000 received from the W. M. Keck Foundation (with P.I. A.C. Hillier and co-PIs B. Narasimhan, K. Rajan and S. Sundararajan) to purchase Local Electrode Atom Probe and establish the W.M. Keck Laboratory for High Throughput Atom-Scale Analysis.

Equipment Purchased/Renovations Made: On PO I7-54439-00 new combinatorial sputtering system has been ordered. This amount represents the 2007 VPR match for the W. M. Keck Foundation proposal.

Progress Report (300 word maximum):

The $120,000 is being used to purchase a combinatorial sputtering system to facilitate research being carried out my faculty involved in the Institute for Combinatorial Discovery, as well as other investigators throughout Iowa State University. A competitive bid for the sputtering system was completed in May and the order placed in early June with AJA International for an ATC-1800V Combinatorial Sputtering System. It is anticipated that the sputtering system will be received during late August, 2007. Installation will occur in 3029 Sweeney and this instrument will become part of the W. M. Keck Laboratory for High Throughput Atom Scale Analysis. The capabilities provided by this instrument do not currently exist at ISU. It will allow materials to be created in the form of well-defined thin films, multilayers, and combinatorial array or gradient libraries.

Principal Investigator: Jaeyoun Kim

Publications/presentations based on project: NA
Awards received: NA
Invention disclosures: NA
External funding applied for (indicate received/denied/pending):

Equipment Purchased/Renovations Made:

- Femto™ Plasma Asher
- Wafer Spinner
- COMSOL Multiphysics Software

Progress Report (300 word maximum):

The research focus on the design and simulation of a novel plasmonic waveguide structure for future applications in photonic integrated systems and on-chip optical interconnects. Plasmon waveguides attract an increasing level of research interest largely due to their ability to confine electromagnetic waves on a subwavelength scale which is not achievable in conventional index-contrast waveguides. A number of plasmonic waveguiding structures have been proposed and demonstrated. Many of them require, however, structures with extremely small feature size or high aspect ratio which make their implementation prohibitively difficult. Based on the literature survey and extensive numerical simulations, we invented a new plasmonic waveguiding structure called "quasi-coplanar plasmon waveguide (QCPW)." The results of numerical studies reveal that QCPW has many desirable characteristics. First of all, the fabrication QCPW involves only standard lithographic and deposition processes available from semiconductor industry. Secondly, the QCPW structure supports a wide range of wavelength, especially the important "telecommunication bandwidth" spanning form 1300 to 1550 nm. The size of the propagating mode, another important consideration, turned out to be far below the wavelength scale. In addition, the tolerance of the modal characteristics to the fabricational errors and misalignment are small as well. Currently, we are writing a manuscript reporting the structure. The lab note containing the numerical results and schematics is notarized. During the second half of 2007, we will extend the numerical investigation to time-domain to see the real propagation characteristics and will fabricate initial samples to characterize.

Principal Investigator: Richard LeSar

Publications/presentations based on project
Awards received: NONE
Invention disclosures: NONE
External funding applied for (indicate received/denied/pending): NONE

Equipment Purchased/Renovations Made: 16 nodes of a dual core dual processor opteron computer

Progress Report (300 word maximum):

For the $80,000, I purchased approximately 16 nodes of a dual core dual processor opteron computer that is managed by the Department of Electrical and Computing Engineering. My students are currently using that computer to perform large-scale parallel computations to model the plasticity of metals in support of new theory development.

Principal Investigator: Krishna Rajan

Publications/presentations based on project:

Awards received: $50,000 : start up funds---Krishna Rajan

Invention disclosures:
External funding applied for (indicate received/denied/pending):

Equipment Purchased/Renovations Made:

Nanoindenter facility

Progress Report (300 word maximum):

This piece of equipment will permit one to study mechanics of materials at the nanometric scale. The unique aspect of the facility is that we can study the effect of environmental conditions on materials properties such as high temperature and in-situ studies in fluid environments.

Principal Investigator: Aaron Clapp

Publications/presentations based on project: n/a

Awards received: **$31**,000 for Equipment for Aaron Clapp, CBE Department

Invention disclosures: n/a

External funding applied for (indicate received/denied/pending):

Denied: Carver Foundation, Beckman Foundation, Ames Lab seed grant, NIH R01
Pending/future: NSF-CRIF, NIH R01

Equipment Purchased/Renovations Made: On PO I7-50307-00, purchased Fluoromax-4; Research spectrofluorometer with 150w ozone free Xe source and power supply.

Also, on PO I7-49358-00, used $6,653 of the Battelle funding towards the purchase of a unilab antechamber.

Progress Report (300 word maximum):

These funds were used as part of a startup package where the equipment has been in place for approximately 6 months.

The Fluoromax-4 has been invaluable for characterizing the emission spectra of synthesized quantum dot samples. The sensitivity of this instrument will be necessary for developing highly sensitive assays that use very low concentrations of fluorescent nanoparticles. This is the most sensitive fluorimeter system currently on the market and has the potential for future upgrades (plate reader, fluorescence lifetimes, etc.).

The mini antechamber is an integral part of the Unilab glovebox system which allows us to safely handle air-sensitive precursor materials such as diethyl zinc. The antechamber is absolutely necessary for transferring materials into and out of the glovebox system.

Our ability to synthesize and characterize fluorescent nanoparticles is dependent on these two pieces.

Principal Investigator: Andrew Hillier

Publications/presentations based on project: Full day symposium entitled "Atom Probe Tomography: Opportunities and Challenges for New Materials Science" held on May 30, 2007. Organized by Krishna Rajan with support from the National Science Foundation, W.M. Keck Foundation and Iowa State University.

Awards received: $36,000 to Andrew Hillier for renovating room 3117 Sweeney, CBE Department

Invention disclosures: None

External funding applied for (indicate received/denied/pending): $1,600,000 received from the W. M. Keck Foundation (with P.I. A.C. Hillier and co-PIs B. Narasimhan, K. Rajan and S. Sundararajan) to purchase Local Electrode Atom Probe and establish the W.M. Keck Laboratory for High Throughput Atom-Scale Analysis.

Equipment Purchased/Renovations Made: Capital Project 502-07-47 created to renovate this research laboratory. Match of W. M. Keck Foundation proposal.

Progress Report (300 word maximum):

Renovations to 3117 are in process to update a laboratory in the 1964 wing of Sweeney Hall. This room is being converted from a storage area into an updated chemical/optical laboratory to provide space for researchers who were displaced by installation of the recently dedicated W.M. Keck Laboratory for High Throughput Atom Scale Analysis. This laboratory will be used to house several of the surface analysis and fabrication equipment used by researchers in the Department of Chemical and Biological Engineering. These include an atomic force microscope, a Langmuir-Blodgett trough, and an imaging ellipsometry/surface plasmon resonance system. Architectural drawings for renovations are complete, blueprints for updated electrical and climate control have been prepared, and cabinets/counters/sinks have been ordered and received. It is anticipated that renovations will be completed by early fall of 2007.

Principal Investigator: Song-Charng Kong

Publications/presentations based on project:
S.-C Kong, "A Study of Natural Gas/DME Combustion in HCCI Engines Using CFD with Detailed Chemical Kinetics," *Fuel*, Vol. 86, pp.1483–1489 (2007).

Awards received:
Invention disclosures:

External funding applied for (indicate received/denied/pending):
"Managing Early Adoption of Biodiesel by Commercial Fleets,"Midwest Transportation Consortium, 5/01/2006—06/30/2007 (Received)
"Emissions from Biodiesel Burned in Utility Generator," Iowa Energy Center, 07/01/2006—06/30/2007 (Received)
"CFD/Detailed Chemistry Simulations of Spray Combustion Considering Practical Fuel Components," DOE Ames Laboratory, 07/01/2006 – 12/31/2007 (Received)

Equipment Purchased/Renovation Made:
$20,000 designated for ISU High Performance Computing Partnership

Progress Report (300 word maximum):

This study continues to develop advanced models that use detailed chemistry with multi-dimensional computational fluid dynamics to simulate fuel combustion in the engine. Improvements in fuel efficiency and emission reduction are imperative to global environments and human health. The fundamental understanding of the engine combustion process will enable more efficient use of biofuel to replace petroleum-based fuels. The goal is to develop a high-fidelity computer model that will be further integrated with virtual engineering tools for designing a cleaner and more efficient combustion system. Simulation results are validated by experimental data. The resulting computer code can also be applied to study the combustion characteristics of various biofuel blends.

Both premixed and direct-injection engine combustion is simulated. A premixed compression-ignition engine using mixture of natural gas and dimethyl ether (DME) was studied. Both natural gas and DME can be produced from renewable sources. Detailed chemical kinetics with 83 species and 360 reactions was used to simulate the combustion chemistry. The model was also applied to simulate direct-injection diesel spray combustion process. Fuel spray dynamics, multiphase flows and combustion chemistry are modeled using an integrated CFD code. The above simulations were validated using experimental data. Continuing efforts of model improvements are being carried out. Future work will also include the combustion chemistry study of different diesel/biodiesel blends in engines.

Principal Investigator: Santosh Pandy

Publications/presentations based on project: One journal paper submitted to Journal of Chemical Physics. Two abstracts are under preparation for an IEEE/NIH Conference.

Equipment Purchased/Renovations Made:

1) Semiconductor Integrated Circuit Chips fabricated through MOSIS foundry ($1,530 + $1,905).
2) Leica Microscope with Camera and Vibration Isolation Table from north Central Instruments (Paid $4,071.75, To be Paid: $20,267.85)

Progress Report (300 word maximum):
We have designed and simulated a novel charge-sensing silicon device with very high scaling properties. The design has been fabricated and is being tested at Coover Hall. The microscope and imaging system is being installed. This will be used for testing characteristics of living cells and microorganisms under various levels of electrical fields. Fabrication of other devices is in progress at the Microelectronics Research Center, ISU for the separation of proteins based on their charge and size.

Principal Investigator: James Alleman

Publications/presentations based on project: None

Awards received: None

Invention disclosures: None

External funding applied for (indicate received/denied/pending):

Investigators: Jim Alleman and Tom Cackler
Project: Recycled Materials Resource Center
Sponsor: Federal Highway Administration
Duration: 5/1/07 – 4/30/2011
Funding: $4,258,532
Denied

Investigator: Jim Alleman
Project: CCEE Learning Community
Sponsor: Target Corp. Campus Grant Program
Duration: 1/1/2007 – 12/31/2007
Funding: $2,000
Received

Investigator: Jim Alleman
Project: ISU Student Study Lounge Proposal
Sponsor: Mass Electric Construction Co.
Duration: 7/15/06 – 6/30/07
Funding: $20,500
Pending

Note: The above mentioned proposals are for Dr. Jim Alleman only. He is the recipient of the Battelle funding, however due to this generous gift, all faculty have benefited from the $6300 donation. Particularly, many more proposals have been submitted, received and/or denied throughout the 6 month project.

Equipment Purchased/Renovations Made:

Dual Core Intel Xeon 5050 Server for the CCEE Department. New server provides the capability of larger memory storage and real-time computer access for an entire research group.

Progress Report (300 word maximum):

This server has benefited several research groups within the CCEE Department, specifically those of Dr. Chuck Jahren and Dr. David White, most recently. The infrastructure is set such that the faculty and research groups can spend their time doing the actual research with real-time data and less time working on data management and maintenance. The server has provided exceptional capabilities than is typically feasible with Departmental budgetary constraints.

ADVANCED MANUFACTURING PLATFORM

PROJECT FUNDS

CIRAS has stopped spending state (Battelle) dollars as we gather information to determine if there is enough interest in this work by Iowa manufacturers. A summary of progress to date is listed below.

An industry Advisory group has been formed using three members of the CIRAS Advisory Council. Members are:

- Jeff Judisch, Quality Assurance Manager, United Equipment Accessories, Inc., Waverly
- Kevin Urban, President, Midwest Metal Products, Cedar Rapids
- Bill Madsen, Manager, Order Fulfillment Integration, Worldwide Supply Chain Management, Deere & Company

CIRAS continues to work with John Deere on a "large" OEM supply chain effort. This work is in concert with the Wisconsin Manufacturing Extension Partnership.

CIRAS staff met with Rockwell staff to determine their interest in a Deere-type approach with Rockwell suppliers.

A meeting was held with an Ag industry OEM to brainstorm what a supplier development program should look like and provide in order to be successful from the perspective of an OEM with fewer than 1000 employees (as opposed to the very large OEMs like Deere and Rockwell). Present at the meeting representing the OEM were the President and the Materials Manager of a mid-sized Iowa company.

CIRAS staff gave a brief overview of three known approaches to supplier development:

- Wisconsin MEP type specialized value stream mapping to reduce manufacturing critical path time (such as JD and others are using in IA) done with individual suppliers
- A lean assessment used to identify weak areas and select improvement area (such as Northrop Grumman is using) done with individual suppliers
- Provide a group training session for suppliers on the basic concepts of the chosen approach – usually Lean – and attempt to motivate suppliers to adopt

We discussed some possible obstacles:

- In cases like JD and Northrop, the OEM is paying for a large portion of the initial engagement/assessment, if not for all of it. Can smaller OEMs mimic that?
- Data and measuring success – sharing of data/confidentiality

The key points brought up were:

- The OEM expressed their #1 need as 'quality' rather than delivery. So they were interested in something that could focus on quality. (FYI - Quality was the number one need that surfaced in the CIRAS survey of 4,000 Iowa manufacturers.)
- Quality is a broad concept; each individual supplier's need is different. As such, they feel a program would have to be customizable to the supplier's need.
- They are relatively small (they have some suppliers like Sauer/Danfoss that dwarf them) so they don't think they will have any traction with those companies.
- They do have smaller suppliers with whom they do have more leverage – probably 15-20 in Iowa.
- Getting an incentive for the supplier to participate may be a challenge. Typically the charge-backs on quality are not huge. Perhaps the ability to benefit from the growth of the OEM might be an incentive. However, it was also noted that they single source most of

these components. Or, perhaps, the supplier might be motivated by the fact that system improvements they make as a result of this project can be used with all the accounts they service.

- Some suppliers will tell CIRAS that the OEM causes some of the quality problems. The OEM saw this as a good opportunity for two-way improvement.

Conclusions:

- "Smaller" OEMs are interested.
- The program would probably have to provide a flexible approach.
- Motivation will be a challenge because the 'smaller' OEM does not have much seed money to pay for initial engagements.
- CIRAS needs to develop and present a coherent model before the OEM can give a strong yes or no.
- We should definitely contact additional 'smaller' OEMs to discuss/flush out potential approaches and obstacles.

Next actions:

- Meet with the Industry Advisory group prior to the next CAC meeting
- Meet with 1 or 2 more 'smaller' OEMs, or tier 1 suppliers that have sufficient supply base to merit such a program.

The University of Iowa

Information for the Legislative Services Agency
Battelle-funded projects as of 12/31/2007

The University of Iowa received a total of $8,410,000 to support three primary areas including the endowed chairs ($2,000,000), Infrastructure ($2,720,000) and the Platforms ($3,690,000). As of December 31, 2007, all of the Battelle funds have been obligated with a total of $6,099,984 being spent or encumbered. From July 1, 2007 to December 31, 2007, $1,247,329 was spent or encumbered.

Battelle Program Summary	Description of Program	Funding & Committed Amount	Allocation to Projects	Progress through December 31, 2007
Infrastructure	To create a joint venture partnership between The University of Iowa, regional economic development leaders and the private sector to expand and develop a new Technology Incubation Center and Research Park on the Oakdale Research Campus.	$2,720,000	New TIC $1,420,000	Design of a new BioVentures Center is complete. Construction began in the November 2007. Anticipated completion date of Fall 2008.
			Myriad Purchase $1,300,000	Building at Myriad Plaza on the Oakdale Research Park was purchased (2656 Crosspark). This building allowed the University to provide space for a California based start-up company.

Battelle Program	Description of Program	Funding & Committed Amount	Allocation to Projects	Progress through December 31, 2007
Endowment	Description: To create an endowed professor- and/or entrepreneur-in-residence program to attract world-class, entrepreneurial talent in the core platform areas.	$2,000,000	Long term Investment Pool $2,000,000	One endowed professor ($100K/year for three years) position was filled allowing us to retain one of our most prolific and entrepreneurial professors (July 1, 2007). Without this endowed professorship, we would have lost him to a University on the East coast. This professor recently obtained a $15M NIH grant and is affiliated with Optherion, which also recently closed on a $30M venture capital investment. VPR is currently negotiating to name an additional endowed chair in the College of Liberal Arts and Sciences. This endowed chair will help create an attractive recruitment package for the new DEO recruit for the

				Department of Biological Sciences. His research will focus on the study of cranial evolution and development, especially in the development of the sensory and neural elements of the inner ear. Funding was $50K from interest income and $50K match from academic department.

Platforms:

PI	Title of Battelle Proposal	Battelle Funds Awarded	Platform	Progress Update – December 31, 2007
Abdel-Malek Team	Commercialization of Santos, a Human Simulation Environment	$370,000	IT	• Refinement of existing modules - customized predictive motion, posture, and muscle activation • New functionality modules added – configuration management, source code control, and quality assurance procedures • New Hires: o Business Development - Individual will work on focusing commercialization objectives, including examination of markets, strategy, and development of a business plan. o Senior Software Engineer – extensive industry experience in game theory and design of intuitive human-machine interfaces o Software Engineer – applied virtual reality research OBJECTIVES • Module integration • Delivery of intermediate results to corporate sponsors • Aggressive outreach with potential sponsors and customers • Draft business plan Jan 2008 • Further hiring
Leno Team	Designing Transgenic Cells for Biomedical Applications	$400,000	Bio-genetics- transgenic cell lines	• Measurement of Leno TNFα-targeted reporter cell line more accurately reflects natural regulation of TNFα gene expression than non-targeted reporter cell lines – in process • Developed ELISA methodology to quantify TNFα protein in cell lines • Developed RT-PCR methodology to quantify TNFα and Luciferase mRNA levels in cell lines • Compared TNFα and Luciferase protein levels among

				targeted and non-targeted cell lines before and after induction of TNFα gene expression (in progress) • Compared TNFα and Luciferase mRNA levels among cell lines before and after TNFα induction (in progress) • Proof of Principle: Knock-out a disease gene in primary fetal fibroblasts using AAV targeting technology • Obtained cells from fetal pigs • Isolated *ApoE* gene fragment from pig cells OBJECTIVES: • Measurement of Leno TNFα-targeted reporter cell line • Compare to wild-type TNFα • Proof of Principle: • Construct AAV targeting vector • Generate *ApoE* targeting virus • Targeted AAV-mediated KO *ApoE* gene • PCR screening *ApoE* KO clones • Confirmation of targeting by Southern blotting • Focus on drug discovery platform • Construct targeted double reporter cell line • Develop business model • Continue discussions with potential partners • Prepare STTR grant application • Pursue further intellectual property
O'Dorisio Team	Development of Peptides for Diagnosis and Therapy of Cancer	$400,000	Bio-imaging & drug discovery	• Creation of novel peptides in cell culture and in animals • Design – completed • Synthesize – completed • Radiolabel – completed • Test – in process • Identification and discussion with potential partners • Submitted NCI grant application that is close to pay line OBJECTIVES: • Establish peptide laboratory equipped with cGMP compliant peptide synthesizer and HPLC purification system • Design, synthesize, and test imaging quality of novel peptides in vitro in cell culture and in vivo in animals • Partner with Northstar Nuclear Medicine to develop PEPTIDE PET imaging • Obtain Exploratory IND for at least one 68Ga-peptide • Conduct PEPTIDE PET imaging trial in humans

				• Career Development award to launch PEPTIDE PET, Inc.
Sharpe	Myriad Fit-Out	$ 1,019,060		• These funds covered the renovation costs of the Myriad Plaza project (2656 Crosspark) on the Oakdale Research Park. This building allowed the University to provide space for a California based start-up company
Shields	Iowa Neuro-Musculoskeletal Therapeutic Training System: Impact on Commercialization in Iowa	$130,000	Bio-therapeutic/ medical device	• Neurogenic Oesteoporosis: therapy demonstrated significant improvement in bone retention in low-functioning patient with spinal cord injury • Functional prototype developed • Device to Human interface improved • Computer control system simplified OBJECTIVES: • Finalize development of new frame through Stand Aid of Iowa • Develop "single module" software control system for commercial applications testing. • Complete first task in gaming software environment • Formalize the commercialization team of key Iowa tech businesses by submitting a phase I and II SBIR application to NIH • Place system in 4 key locations for feedback in Iowa Sports Medicine Centers • Formalize the operational model of the Intelli- ex company
Van Beek Team	Iowa Imaging-Based Multi-center Trials Organization	$400,000	IT; Bio- imaging	• Hired project managers • A strategic partnership has been announced between an Iowa-based multicenter trials company, CompleWare, and UIQI2 along with VIDA • UIQI2 has acquired dedicated office space at the Oakdale Technology Innovation Center right next to VIDA and less than 10 minutes from CompleWare • A first subcontract has been awarded by CompleWare to QI2 • PW+ 510(k) compliance will be submitted to a 3rd party reviewer mid-November allowing for use in a fee-for-service model as well as in commercially sponsored multi-center clinical trials • A system of electronically tracking, entering, and analyzing

				the data and results is under development through a consortium between: UIQI2 / I-Clic; QI2; VIDA OBJECTIVES: • Obtain clinical research contracts for drug and device trials and help develop a pay-per-use model of operation for trials involving lung imaging • Expand beyond lung-only image analysis to take advantage of non-lung technology being developed at the University • Spin out company from UIQI2 to continue work once initiative has expired. This company has already been established and is called QI2, Inc. (Quantitative Imaging of Iowa)
Welsh	Porcine Models of Human Disease	$400,000	Bio-genetics- animal models	• Developed first knock-out of a human disease gene (cystic fibrosis) in pigs • Developed the first-ever knock-in pig – the most common cystic fibrosis mutation in humans • Validation of disease pig models in comparison to normal pigs begun • Continuing development of relationship with probable business partner • Approval to be a tenant in the UI Bioventure Center OBJECTIVES • Characterize first CF pigs (is the model working?) • Continuing validation of pig models • Begin moving to miniature pig breeds (commercialization species) • Provide a limited number of CF pigs to CF research community for further validation • Evaluate further disease models (cardiovascular, cancer, neurodegenerative, eye, muscular dystrophy, …) • Further develop business model • Working with Cystic Fibrosis Foundation for further funding
Griffith Team	Development of AD5-Trail as a Cancer Therapeutic	$400,000	Bio- genetics- cancer therapy	• Current phase I trial is nearly complete • Completed production and testing of new Ad5-TRAIL MVB • Completed preliminary optimization run for Ad5-TRAIL clinical lot • Established contact with 2 pharmaceutical/biotech companies regarding further development/licensing • Combination studies with HDACi to increase adenoviral infection

				• Increase Ad5-TRAIL transgene expression, and modulate tumor cell sensitivity to TRAIL-mediated apoptosis (Merck & Co) OBJECTIVES: • Phase I Clinical Trial Results: Spring/Summer 2008 • Develop plan for Phase II Clinical Trial (assuming Ph I positive) • Continue Ad5-TRAIL development and clinical testing to generate further corporate interest • Evaluate other cancer applications
Weiss Team	Design and Testing of Novel Toll-like Receptor 4-Directed Immunomodulators	$100,000 $70,9402/6/2008 Additional funding allocated to Dr. Weiss from remaining balance of the Myriad Fit-Out	Bio- drug delivery, genomics	• Production and purification of wild type and variant compounds • Publications: 1 in press; 1 in review; 1 meeting (baculovirus technology) • Demonstration that natural compound is a potent agonist for airway TLR4 • Demonstration that underacylated compound is a weaker airway agonist • Agreement with NIH/NIAID to test ability of compounds to prime airway host defense against highly virulent airway pathogens OBJECTIVES: • Test ability of additional compounds (or other underacylated compound (products of other grants) to act as TLR4 antagonists/airway • Further characterize ability of natural compound to prime airway host defenses (dosing/timing; range of pathogens, including respiratory viruses; effects on innate/adaptive host defenses) (continue mouse expts) • Test in larger animal models, including neonatal pigs • Characterize “activation surface” of natural compound (monoclonal antibody; structural comparison of natural and variant compound) (other grants) • Evaluate further compounds: small molecule mimetics (e.g., peptides –focus on search for TLR4 inhibitors) • Evaluate synthetic peptides • Begin business viability assessment

The University of Iowa
2007 Annual Economic Development Report
Submitted to
The Board of Regents

EXECUTIVE SUMMARY

Inspired by the Grow Iowa Values Fund (GIVF) and the Battelle Reports on Biosciences, Advanced Manufacturing and Information Solutions, The University of Iowa took a fresh look at its economic development activities and reorganized and reinvigorated them in a way that engages the University more fully and effectively in Iowa's economic development. One important result was the formation in 2005 of the IOWA Centers for Enterprise. Another was the *strategic* investment of GIVF and Battelle funds in building the University's *capacity* to drive economic development based on its academic and research strengths and through the integrated efforts of the IOWA Centers for Enterprise. The GIVF and Battelle fund investments are *essential* to building the University's capacity to engage fully in Iowa's economic development.

The IOWA Centers for Enterprise is an integrated effort comprising the activities of six University units plus liaisons with each College on the campus. As an integrated organization, it embraces outreach, workforce development, technology transfer and commercialization, entrepreneurship, and research- and education-driven economic development. The six units of the IOWA Centers for Enterprise include:

- The Oakdale Research Park (ORP)
- The Technology Innovation Center (TIC)
- The University of Iowa Research Foundation (UIRF)
- The John Pappajohn Entrepreneurial Center (JPEC)
- The University of Iowa Small Business Development Center (SBDC)
- The Office of Corporate Partnerships (OCP)

Their contributions to Iowa's economic development are summarized in this report.

Institutional Economic Development and Technology Transfer Programs

The Technology Innovation Center fosters the development of new technology-based business ventures by offering specialized facilities and services to sustain them in their early, most vulnerable years**. The Oakdale Research Park** provides established corporations with easy, sustained access to relevant research resources at The University of Iowa. Firms in the park can expect to establish and sustain working relationships with UI faculty scientists, physicians, and engineers.

The 46 active Iowa companies affiliated with TIC and ORP reported 1,592 employees earning an average salary of nearly $60,000. The four UI anchor laboratories at Oakdale reported another 188 employees, for a total workforce of 1780 employees. The 1,780 employees of TIC/ORP affiliate companies and labs reported living in 29 counties and 80 cities and towns in Iowa, a regional labor shed covering approximately one-third of the State.

Assuming a State income tax rate of 5%, employees of TIC/ORP affiliates paid approximately $5.2 million in State income taxes in FY06. TIC/ORP affiliates reported employing 91 UI students, while 138 employees had earned doctoral degrees. In FY07 the TIC accepted two new tenant companies while four firms met their business goals upon "graduating" from the incubator. The ORP welcomed one new tenant, National Genecular Institute, Inc.

The University of Iowa Research Foundation is a non-profit corporation closely aligned with the UI. It takes ownership of and manages UI created intellectual property (IP) and the subsequent revenue stream related to licensing technologies. The UIRF works closely with UI faculty in developing the strategies required to commercialize inventions and intellectual property through the creation of new companies. This includes (i) Intellectual Property protection strategies and execution; (ii) commercialization strategies relating to licensing to existing or new companies; (iii) business model development for UI spinout companies (new companies based substantially on UI technologies); and (iv) due diligence on the viability of UI spinout companies.

UIRF invests human and capital resources in creating new business opportunities from that IP, some of which result in the formation of new companies and resulting jobs. For example, one of our new companies is projecting approximately 25 new jobs to be employed by the company's R&D division located in Iowa City. In FY07 the UIRF received 89 disclosures of intellectual property, filed 130 patent applications related to University innovations, had 119 patent applications mature into issued patents, completed 34 license and option agreements related to University intellectual property, and received $17.4 million in royalties and license fee income. The UIRF supported the formation and/or development of 7 new potential high tech companies; about half of these subsequently received federal or private funding in FY07 to advance their products.

The John Pappajohn Entrepreneurial Center provides a rich program of education and outreach services to undergraduate and graduate students at the University of Iowa and broadly to the entrepreneurial community in Iowa. It sponsors youth outreach programs directly to young people and to middle school and high school teachers by training and supporting them through incorporating entrepreneurship into their classrooms. With the support of a generous gift from Richard O. Jacobsen, in FY07, JPEC formed the Richard O. Jacobsen Institute for Youth Entrepreneurship. JPEC also provides a rich array of educational programs to entrepreneurs. It also sponsors a venture capital conference and is the regional administrator of the Wellmark Venture Capital Fund, a $5 million fund created by Blue Cross and Blue Shield of Iowa to support the creation and growth of new businesses throughout the state. The Pappajohn Center also counsels entrepreneurs in forming business plans, obtaining capital for their business, and in a host of other business-support activities.

The Small Business Development Center provides a wide range of business counseling to small businesses in Iowa. In FY07, the SBDC served 222 clients in 13 Iowa counties, served 50 startups, dedicated almost 1,200 hours to clients, assisted clients in obtaining more than $3.5 million in loans, and supported the creation of an estimated 117 jobs by its small business clients.

The Office of Corporate Partnerships links Iowa businesses to University of Iowa knowledge resources. It links Iowa companies to other units of the IOWA Centers for Enterprise and helps companies link with technical resources, faculty expertise, student interns, graduating students as employees, and many other resources of the University. The OCP works closely with the Iowa Department of Economic Development in economic development activities in which the University of Iowa can serve as a resource, and it serves as the single point of access for companies having inquiries and requests for assistance. In FY07, the OCP completed 37 visits to Iowa biotechnology, advanced manufacturing and information solutions companies. It arranged visits of companies and individuals to the University of Iowa campus and identified technical needs of several companies and worked with units of the University to address those needs.

Other Units:

Center for Advanced Drug Development (CADD)

The Center for Advanced Drug Development (CADD) is a division of the University of Iowa College of Pharmacy, and is located in the Oakdale Research Park. The Center offers contract services to the pharmaceutical and biotechnology industry which complement those of the College's Division of Pharmaceutical Service. All procedures are carried out in adherence to current Good manufacturing Practices (cGMP) as mandated by the FDA. The Division of Pharmaceutical Service, the only comprehensive FDA registered facility in a College of Pharmacy in the U.S., offers the unique capability to produce under contract limited quantities of new medicines under FDA approval. The capacity is particularly valuable to firms wishing to bring new products through clinical trials.

Currently CADD has 39 clients, three of these companies are located in Iowa. CADD has also been working in the current year with clients from Canada, Taiwan and Japan. A new trend among our clients is to not only file new applications at the FDA, but also at regulatory bodies in Japan and Europe, which means that our procedures must satisfy the different regulatory agencies.

Grow Iowa Values Fund Projects

Using the University of Iowa allocation of Grow Iowa Values Funds, the Office of the Vice President for Research established and implemented a program that incorporates two distinct and interdependent phases: I-START, which is targeted at the short-term goal of facilitating university-private sector partnerships in entrepreneurship and the creation of new companies and jobs in Iowa, and I-GROW, which is designed to address middle- to long-term commitments needed to strengthen the University's *capacity* to promote and sustain high tech entrepreneurship and promote research- and technology-driven economic development in Iowa.

I-START funds are being used to:

- Set aside funds for construction of a new life sciences business incubator – the UI BioVentures Center – which will begin in fall 2007 and be completed by fall 2008.
- Hire a seasoned (25+ years experience) technology transfer and economic development professional to lead the IOWA Centers for Enterprise in UI's economic development initiatives.
- Provide gap funding for three faculty projects that show strong hope for commercialization. This funding is essential to move their nascent innovations down the developmental pipeline. All six projects (3 from 2006 and 3 from 2007) have a corporate partner and/or are being groomed as spin-out companies.
- Provide support to bolster the activities of the Office of Corporate Partnerships, which in turn supports the IOWA Centers for Enterprise in serving as the single point of access to companies seeking to link with the resources of the University to meet their needs.
- Support the hiring of a Faculty Entrepreneurship Coordinator in The John Pappajohn Entrepreneurial Center. This entrepreneur contributes to the undergraduate and graduate entrepreneurism curriculum, provides outreach to the community of entrepreneurs in Iowa, and counsels students, faculty and the public at-large concerning entrepreneurism.
- Hire a nationally recognized consultant to assist in developing the vision for a reinvigorated Oakdale Research Park and Technology Innovation Center. Hire consultants to assist in developing a signage plan, covenants and architectural guidelines for the Park, and a marketing plan for the BioVentures Center/Technology Innovation Center.
- Renovate the facilities of the Center for Biocatalysis and Bioprocessing to transform it into a facility that meets U.S. Food and Drug Administration current Good Manufacturing Practices standards necessary to be able to produce supplies of materials used in human clinical trials.

I-GROW funds are being used to provide a start-up funding package for the research program of Dr. Venkiteswaran ("Mani") Subramanian, Director of the Center for Biocatalysis and Bioprocessing (CBB). Dr. Subramanian brings 24 years of industrial experience to the University, and this start-up package was essential in attracting this highly entrepreneurial faculty member to The University of Iowa.

Battelle Fund Projects

Battelle funds allowed UI to complete the following by the end of FY07:

- Design of the new life sciences incubator facility the BioVentures Center is complete. Construction will begin fall 2007 and be completed fall 2008.
- A building at Myriad Plaza on the Oakdale Research Park was purchased and renovated allowing UI to provide space for a company
- One endowed professorship was filled, allowing UI to retain one of our most entrepreneurial faculty who was being recruited by a university on the east coast.
- Eight platform research efforts related to IT, biogenetics, bio-imaging, drug discovery, therapeutics animal models, and genomics were bolstered.

Battelle Reallocation /Re-budget

During the August 2006 Board of Regents Meeting, the Battelle budgets for Infrastructure, Endowment and Core Platforms were approved. The Vice President for Research requests reallocation in two of these areas.

Core Platforms – the amount allocated to the Myriad Fit-Out should increase by $90,000 for a total amount of $1,090,000. When the original documents were submitted in August of 2006, the $90,000 was inadvertently left out of the budget (docketed amount was $3,600,000). By adding this amount to the Myriad Fit-Out, the total in the Core Platforms budget will be $3,690,000.

Infrastructure – there was $100,000 allocated to the Myriad Fit-Out under this section of the Battelle Budget. We request that this $100,000 be reallocated to the New TIC (BioVentures) building. This reallocation would bring the TIC budget to $1,420,000 and the Myriad Fit-Out to zero.

The University of Iowa
2007 Annual Economic Development Report
Submitted to
The Board of Regents

INTRODUCTION

Inspired by the Grow Iowa Values Fund (GIVF) and the Battelle Reports on Biosciences, Advanced Manufacturing and Information Solutions, The University of Iowa took a fresh look at its economic development activities and reorganized and reinvigorated them in a way that engages the University more fully and effectively in Iowa's economic development. One important result was the formation in 2005 of the IOWA Centers for Enterprise. Another was the *strategic* investment of GIVF and Battelle funds in building the University's *capacity* to drive economic development based on its academic and research strengths and through the integrated efforts of the IOWA Centers for Enterprise. The GIVF and Battelle funds investments are *essential* to building the University's capacity to engage fully in Iowa's economic development.

The IOWA Centers for Enterprise is an integrated effort comprising the activities of six University units plus liaisons with each College on the campus. As an integrated organization, it embraces outreach, workforce development, technology transfer and commercialization, entrepreneurship, and research- and education-driven economic development. The six units of the IOWA Centers for Enterprise include:

- The Oakdale Research Park (ORP)
- The Technology Innovation Center (TIC)
- The University of Iowa Research Foundation (UIRF)
- The John Pappajohn Entrepreneurial Center (JPEC)
- The University of Iowa Small Business Development Center (SBDC)
- The Office of Corporate Partnerships (OCP)

Their contributions to Iowa's economic development are summarized in this report.

1. **Please briefly describe the relationship of your institution's economic development activities to the enhancement of economic growth in the state. The description should cover, but not necessarily be limited to the following:**
    a. **The relationship between institutional activities and creation of jobs and wealth in Iowa**
    b. **Institutional activities and services which indirectly promote economic development, such as training provided to staff of local economic development agencies.**

Technology Innovation Center & Oakdale Research Park

The Technology Innovation Center business incubator fosters the development of new technology-based business ventures by offering specialized services and facilities to sustain them in their early, most vulnerable years. The University of Iowa Oakdale Research Park provides established corporations with easy, sustained access to relevant research resources at The University of Iowa. Specialized UI laboratories especially relevant to needs of business and industry have been strategically located on the Research Park for easy corporate access. These "magnet labs" include facilities dedicated to human health and medicine, the Center for Biocatalysis and Bioprocessing (fermentation/industrial biotechnology), the Center for Advanced Drug Development (pharmaceutical assays and stability studies) and the National Advanced Driving Simulator.

Firms in the Innovation Center and Research Park can expect to establish and sustain working relationships with UI faculty scientists, physicians, and engineers. UI students find it convenient to secure internships and part-time employment with these firms.

The Center and Park are making important contributions to growing Iowa's economy, and with the State, the region and the private sector as partners these programs are poised to implement a new vision for an even greater role in Iowa's future economy.

In FY 2007, the 46 active companies affiliated with the Innovation Center and Research Park reported 1,592 employees. The four UI magnet laboratories on the Park reported 188 employees for a total work force of 1,780 for affiliates of the UI Innovation Center and Research Park. That total included 91 UI student employees and interns, while 138 employees had earned a doctoral degree.

Companies and laboratories affiliated with the UI Innovation Center and Research Park draw employees from a labor shed that covers 80 Iowa cities and towns and 29 Iowa counties – nearly one-third of the State.

The average annual salary of the corporate employees was more than $58,000 and the average annual salary offered a new college graduate was more than $40,000.

Assuming a State income tax rate of 5%, the employees affiliated with the Innovation Center and Research Park paid an estimated $5.2 million in State income taxes in FY 2006.

In FY 2007, one new company, National Genecular Institute, Inc., moved to the Research Park; while two new companies, KemPharm, Inc. and The Thomas Group, became new tenants in the Innovation Center. One company, AISST (American Institute of Sustainable Science and Technology), graduated from the Center in FY 2007.

Also in FY 2007, the Innovation Center and Research Park completed feasibility studies and planning for a new life sciences business incubator facility that is expected to open in the Park in early FY 2009. Consultants completed a new master plan that will guide future development in the Park and began a needed revision of activity covenants and architectural

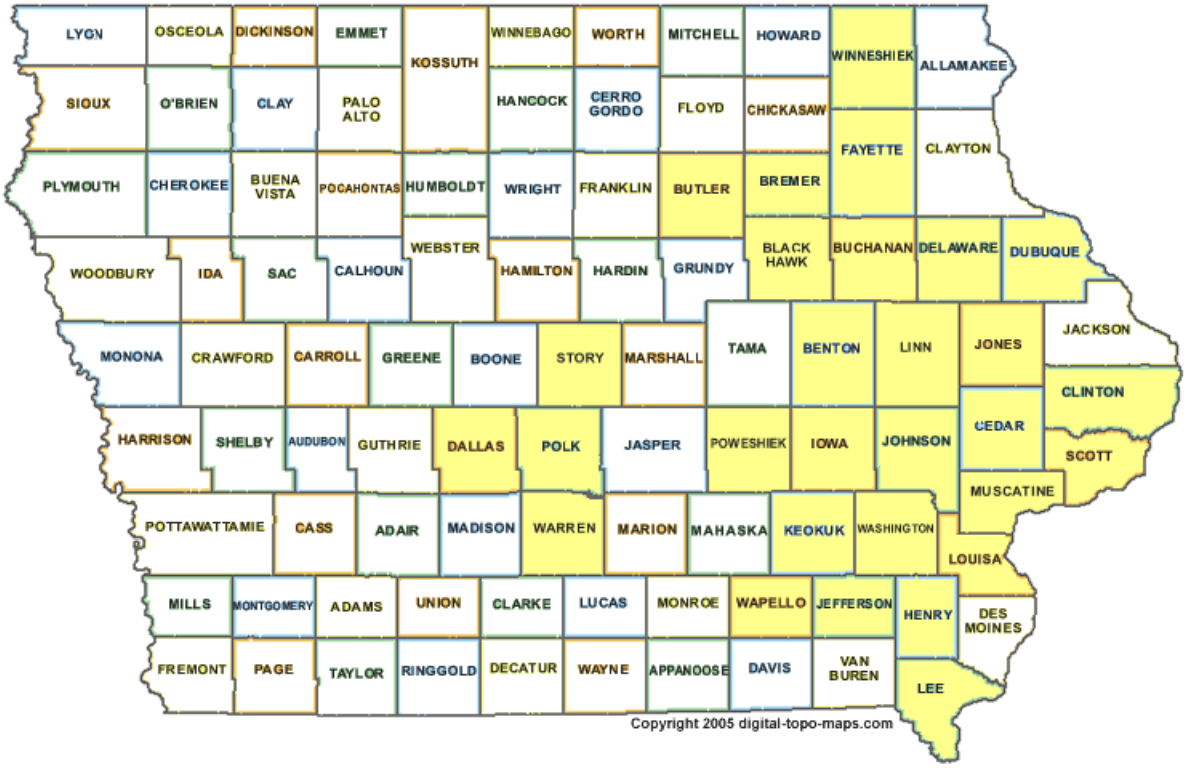
guidelines for the Park. A consultant was retained to prepare recommendations for comprehensive marketing plans for the Center and Park.

In FY 2007, the Technology Innovation Center initiated an Educational Seminar Series to address interests and needs of the Innovation Center tenant companies. The initial seminar program focused on UI Career Services to assist incubator companies in identifying and hiring top interns and graduates. A second seminar planned for early FY 2008 is a two-day workshop on SBIR/STTR Phase I and Phase II grant writing. More educational seminars are being planned for FY 2008.

In FY 2007, the Center continued to offer a series of programs called Tech Innovation Center Roundtables. These programs also focused on the needs of the Innovation Center tenant companies. Each Roundtable included substantive presentations by selected tenant companies on their activities, presentations by the Executive Director and staff, and participation by community partners and other units of IOWA Centers for Enterprise. Five Roundtables were presented in FY 2007 and a minimum of six are planned for FY 2008.

In FY 2007, State Special Purpose Appropriations for Economic Development were $43,701 for the Innovation Center and $92,961 for the Research Park.

FY07 Labor Shed for Affiliated Companies and Labs
UI Oakdale Research Park and Technology Innovation Center



Labor Shed Counties in Yellow

The University of Iowa Research Foundation

The University of Iowa Research Foundation (UIRF) - a 501(c)3 corporation - commercializes University of Iowa developed technologies and inventions through licensing and new venture formation, and manages the subsequent revenue stream. The UIRF's contribution to economic development in the state of Iowa in FY07 fell into these categories:

- **GAP FUNDS:** Monitored and evaluated progress on the Gap Fund by matching GIVF monies with UIRF dollars to fund the development of 6 new UI spinout company product prototypes or core intellectual property.
- **NEW COMPANIES:** Formation and/or development of 7 new potential high technology companies; about half of these subsequently received federal or private funding in FY07 to advance products.
- **TECHNOLOGY MARKETING:** received 89 UI invention disclosures in FY07; filed 130 patent applications, and marketed approximately 800 technologies for licensing. UIRF is actively seeking out Iowa licenses whenever a match with company needs is found.
- **LICENSING:** Completed 34 option and license agreements, executed 3 licenses to existing Iowa companies. Note that UI's portfolio is largely human life sciences and currently has little overlap with most Iowa companies, although emerging software and engineering technologies should shift the mix over time.
- **REVENUES:** Received $17.4M in licensing revenues, which helped to ensure UI technology commercialization, provided the UI, colleges, and departments revenues for further technology research, and rewarded inventors for entrepreneurial activity
- **IOWA EMPLOYMENT:** 12 full time employees, 2 part time employees, 1 industry consultant, 1 auditing firm and 2 law firms.
- **COLLABORATION:** Collaboration with other economic development organizations and individuals, such as Iowa City Area Development Group (ICAD), the Southeast Iowa Venture Fund (SIVF) and Iowa entrepreneurs and investors.

The John Pappajohn Entrepreneurial Center

Formed in 1996, JPEC is an innovator in delivering interdisciplinary courses and specialized life-long learning programs to meet the unique needs of aspiring entrepreneurs and leaders. JPEC offers academic programs and technology commercialization support.

Academic Programs

JPEC has developed a comprehensive, interdisciplinary program that combines academic coursework with experiential learning for all students across the UI campus. This innovative approach is designed to prepare graduates to pursue the creation of new ventures and apply entrepreneurship concepts in their career endeavors. Each year, over 2,000 students enroll in entrepreneurship courses at Iowa.

Certificate in Entrepreneurship
Students in business, health sciences, and liberal arts and sciences may earn the certificate in addition to their undergraduate degrees. The program encompasses advanced entrepreneurship theory and practice and teaches students how to apply entrepreneurship to their primary fields of study.

Technological Certificate
The first of its kind at any U.S. engineering college, the Technological Entrepreneurship Certificate gives engineering students specialized training on the entrepreneurial process. This program is a combination of advanced entrepreneurship and engineering courses specifically tailored for each engineering discipline.

Performing Arts Entrepreneurship Major
Performing arts students gain a competitive edge by earning an undergraduate degree in Performing Arts Entrepreneurship. Designed for students who intend to start their own business in dance, theatre arts, or music, this unique curriculum provides an avenue for developing core entrepreneurial skills.

MBA Concentration
The MBA Concentration in Entrepreneurship is designed for graduate students to study in an advanced, interdisciplinary environment with applications from medicine, engineering, computer science, and business. A strong emphasis is placed on starting and growing technology-based ventures.

Experiential Learning
Student teams conduct field study projects for area early stage companies working with entrepreneurs in the biosciences, information technologies, and advanced manufacturing industries, as well as faculty from the Colleges of Medicine and Engineering.

Entrepreneurship Club
Members of I-Envision, the campus wide entrepreneurship club, learn how to start and maintain businesses, work on community service projects, learn from successful entrepreneurs, and attend regional and national conferences. I-Envision is a member of the Collegiate Entrepreneurs Organization and Students in Free Enterprise.

Learning Community
Incoming first-year students have the opportunity to live with like-minded students on the Leadership Community in Business and Entrepreneurship residence hall floor. This unique living and learning environment provides students with educational and social opportunities while introducing entrepreneurship as a field of study and career path.

Business Plan Competitions
In addition to national competitions, UI students compete for seed funding through the Volding Business Plan Competition, the Storer Engineering Start-up Award, and the statewide Pappajohn NewVenture Business Plan Competition.

Entrepreneur-in-Residence
Sponsored by Iowa State Bank & Trust Company, this program partners successful entrepreneurs with business-minded students and includes intensive one-on-one mentoring. In addition, JPEC faculty and staff regularly mentor and assist UI student entrepreneurs, as well as help access capital including the Wellmark Venture Capital Fund, area angel networks, and other sources of funding.

Consider Iowa Internship
UI students gain firsthand experience at a start-up company through this unique internship program where entrepreneurship students work as paid interns in emerging Iowa businesses. JPEC provides training to the intern and business consulting to the host company.

Technology Commercialization
Providing specialized entrepreneurial education and consulting services to UI faculty, staff, and students is a major component of JPEC's overall mission to foster the spirit of innovation and entrepreneurship in Iowa. These activities lead to the creation and expansion of sustainable business ventures, while offering entrepreneurship students exciting experiential learning opportunities.

Technology Commercialization and Faculty Entrepreneurship
JPEC leads programs involving education and business support for technology-based ventures. The Center sponsors several seminars and workshops on entrepreneurship, technology commercialization, and new venture financing. One-on-one consulting and mentoring is also provided to UI entrepreneurs pursuing the creation of a technology venture.

E-Teams
JPEC faculty directs interdisciplinary commercialization evaluation teams of graduate students, faculty, and outside mentors. These teams conduct comprehensive market studies of UI-based technologies and often work closely with faculty entrepreneurs on the development of business plans for the creation of new technology ventures.

Other Units:

Center for Advanced Drug Development (CADD)

The Center for Advanced Drug Development (CADD) is a division of the University of Iowa College of Pharmacy, and is located in the Oakdale Research Park. The Center offers contract services to the pharmaceutical and biotechnology industry which complement those of the College's Division of Pharmaceutical Service. All procedures are carried out in adherence to current Good manufacturing Practices (cGMP) as mandated by the FDA. The Division of Pharmaceutical Service, the only comprehensive FDA registered facility in a College of Pharmacy in the U.S., offers the unique capability to produce under contract

limited quantities of new medicines under FDA approval. The capacity is particularly valuable to firms wishing to bring new products through clinical trials.

This Center, which is an integral resource in the state's bioeconomy economic development agenda, offers non-production services and contract services relevant to the clinical trials process which complement those of the Division of Pharmaceutical Service, and explicitly include:

- Management of FDA relationships for clients, especially in the processing of new drug applications,
- Development and execution for new chemical assays for new dosage forms and chemical entities,
- Development and execution of stability studies of candidate medicine dosage forms and
- Testing of active pharmaceutical ingredient/excipients for compliance.

This Center addresses a crucial economic need to shorten the lead time between new pharmaceutical discoveries in the laboratory and their commercialization in the market place. Because pharmaceuticals occupy such a potentially important part of the state's high technology portfolio, as well as a critical role in the University's economic development efforts, the Center increases economic resources in a strongly competitive environment. In addition, as the state looks ahead to an investment to enhance its biotechnology infrastructure for both animal and human health, the Center will play a major role (along with the Center for Biocatalysis and Bioprocessing and the Division of Pharmaceutical Service) in the University's ability to interact with the biotechnology industry to shorten the time to market for new therapies. This new initiative will also attract interest from a completely new industry base, composed of mainly start-up companies, who may be recruited to Iowa.

Initially, clients were drawn from the existing client base of the Division of Pharmaceutical Services. New clients are being drawn from biotechnology companies, manufacturers of pharmaceutical excipients, and a growing pool of U.S. and foreign pharmaceutical firms. The Center, as well as Pharmaceutical Services, are particularly well positioned to work directly with discoveries from Iowa university research laboratories; thereby providing an opportunity to hasten technology transfer and shorten the time to market. The presence of these FDA registered facilities along with the Center for Biocatalysis and Bioprocessing makes UI unique among US universities to provide this type of infrastructure for pharmaceuticals and biological products.

Currently CADD has 39 clients, three of these companies are located in Iowa. CADD has also been working in the current year with clients from Canada, Taiwan and Japan. A new trend among our clients is to not only file new applications at the FDA, but also at regulatory bodies in Japan and Europe, which means that our procedures must satisfy the different regulatory agencies.

At present, the personnel consists of 16.25 full-time employees. The majority of personnel are from surrounding cities, with some traveling as far as Oelwein and Muscatine.

CADD strives to continuously update instrumentation, the software packages used to control instruments and to calculate results, to ensure the availability of state-of-the-art facilities. All software packages are reviewed to assure adherence to FDA regulations for electronic equipment.

Minor renovation was undertaken in the Physiology Research Laboratory building, to be able to combine all the stability cabinets in a space that can be secured, to be compliant with the DEA regulations for controlled substances. An emergency power backup unit to the stability cabinets was also installed.

2. Please provide the following information for FY 2007: (If your institution utilizes additional metrics specific to your institution's specialized areas of research or service, please include them here.)

a. Number of disclosures of intellectual property	87
b. Number of patent applications filed • U.S. Applications • National Applications • Patent Cooperation • Total Applications	 72 45 13 130
c. Number of patents issued	119
d. Number of license and option agreements executed on institutional intellectual property • In Iowa	34 3
e. Number of license and option agreement yielding income	151
f. Revenue to Iowa companies as a result of licensed technology	$1.5 million
g. Number of startup companies formed • In Iowa	1 1
h. Number of companies in research parks and incubators	50
i. Number of new companies in research parks and incubators	3
j. Number of employees in companies in research parks and incubators	1,780
k. Royalties and license fee income	$17.4 million
l. Total sponsored funding	$382.2 million
m. Corporate sponsored funding for research and economic development • In total • In Iowa	 $41.8 million $1.6 million
n. Iowa special appropriations for economic development in the following categories • Annual state appropriations for ongoing programs (such as research parks, SBDE, IPRT, IDM, Metal Casting Center) • Grow Iowa Values Fund appropriations • Battelle appropriations	 $247,005 $1,925,000 $8,410,000

3. Please describe the ways in which your institution is engaged in the following activities (For example, What is the nature of the outreach and service activities? Which units provide it? What kinds of people and organizations benefit?):

a. Direct and hands-on technical assistance to businesses and entrepreneurs
b. Direct economic development assistance to Iowa communities
c. Economic development services provided by the research parks, incubators or similar service units

IOWA Centers for Enterprise Senior Staff Board and Related Affiliation

Senior Staff	Department	Board Affiliation
Vice President Meredith Hay	Vice President for Research	• US Bank Iowa City Community Advisory Board • Board of Directors for United Way of Johnson County • Member of United Way Johnson County Campaign Cabinet • Board Member, Cedar Rapids Chamber of Commerce Priority One • Member, Iowa City Area Development • Board Member, BIOWA • "Light the Night" Lymphoma/Leukemia Society Honorary Chair • Member, Iowa Business Council • Member, Bioscience Alliance of Iowa Board

Thomas R. Sharpe, Ph.D., Associate Vice President for Research: Economic Development	IOWA Centers for Enterprise	• Board of Directors, Technology Association of Iowa
		• Board of Directors, Iowa Information Technology Council
		• Board of Directors, Bioscience Alliance of Iowa
		• Board of Directors, Iowa City Area Development Group
		  o Entrepreneurial Development Committee
		  o Business Recruitment Committee
		  o Existing Business Retention and Expansion Committee

		• Member, Iowa City Chamber of Commerce o Economic Development Legislative Subcommittee • Board of Directors, Junior Achievement of Easter Iowa, Iowa City Area • Board of Directors, University of Iowa Research Foundation • Board of Directors, University of Iowa Research Park Corporation • Panelist, National Science foundation SBIR/STTR Proposals Reviews
Pam York, Ph.D., Executive Director	University of Iowa Research Foundation	• Member, Prolog Venture Capital Deal Flow Committee for the state of Iowa • Board Member, Iowa city Area Development Group • Advisory Board Member, Pohaku, Inc. • Advisor, Southeast Iowa Venture Fund Foundation Board • Selection Committee Member, Technology Council of Iowa • Panelist, National Science Foundation Small Business Innovation Research (SBIR) program
Brenda Akins, Associate Director	University of Iowa Research Foundation	• Vice President and Board of Director, Iowa City Community School District Foundation • Outgoing Council, Chair and Council Member, Iowa City Area Chamber Community Leadership Program • Advisory Board, Iowa State Bank & Trust
Diane Gallagher, Director	Office of Corporate Partnerships	• Iowa Rural Development Council • Iowa Careers Consortium Advisory Board • Iowa Biotechnology Association
Paul Heath, Director	Small Business Development Center	• Board of Directors, MEI-Charlton • Iowa City Area Chamber of Commerce Legislative Economic

		Development Subcommitte • AICPA – American Institute of Certified Public Accountants • IMA, Institute of Management Accountants • University of Iowa Small Business Development Center Advisory Board • Professional Developers of Iowa • Old Capitol Kiwanis Club • American Institute of Individual Investors

The Technology Innovation Center and Oakdale Research Park

The UI Oakdale Research Park (ORP) and the affiliated UI Technology Innovation Center (TIC) business incubator are physically located on the UI Oakdale Research Campus in Coralville. Corporate tenants of the Park typically require sustained relationships with UI in the form of access to specialized research facilities, research faculty consultation, opportunity for research collaboration, access to a pool of student interns and part-time employees, opportunity to do business in a research park environment, proximity to intellectual property licensing opportunities, among others. Corporate tenants in the TIC incubator share many requirements of the larger and more established Park companies, but early-stage TIC firms seek cost-effective office and laboratory space and shared office services in an "incubator" environment. New technology ventures often require individual assistance with business planning, establishing UI research relationships, identifying professional service providers, introductions to local and state government agencies and the regional business community, help in identifying potential sources of investment and other funding, communications and other needs on a case-by-case basis. The Park and the TIC incubator are among the major programs by which UI encourages new "spin-offs" from its research and other new technology ventures in the state, and also by which new and growing technology ventures are recruited to the state.

Name of Business or Other Entity Served	City and County where this Project is in Place		University Unit that interacted with business or other entity	Activity
	City	County		
				BUSINESS INCUBATOR TENANTS
AISST, Inc.	Coralville	Johnson	Technology Innovation Center	
Vertex Pharmaceuticals	Coralville	Johnson	Technology Innovation Center	
Digital Artefacts, LLC	Coralville	Johnson	Technology Innovation Center	
Applied Fullerene	Coralville	Johnson	Technology Innovation Center	
Pharmacom Corporation	Coralville	Johnson	Technology Innovation Center	
Innomatix, LLC	Coralville	Johnson	Technology Innovation Center	
Ramaanchar Technologies, Inc.	Coralville	Johnson	Technology Innovation Center	
IAgen, LLC	Coralville	Johnson	Technology Innovation Center	
K2 Technologies	Coralville	Johnson	Technology Innovation Center	
Corridor Business Journal	Coralville	Johnson	Technology Innovation Center	
VIDA Diagonostics	Coralville	Johnson	Technology Innovation Center	
Componica, LLC	Coralville	Johnson	Technology Innovation Center	
Cellular Engineering Tech.	Coralville	Johnson	Technology Innovation Center	
Actual Safety, INC.	Coralville	Johnson	Technology Innovation Center	
Selim Laboratories, Inc.	Coralville	Johnson	Technology Innovation Center	
KemPharm, Inc.	Coralville	Johnson	Technology Innovation Center	
The Thomas Group	Coralville	Johnson	Technology Innovation Center	
				RESEARCH PARK TENANTS
Innovative Software Engineering	Coralville	Johnson	Oakdale Research Park/TIC Graduate	
LMS North America	Coralville	Johnson	Oakdale Research Park/TIC Graduate	

Breakthrough to Literacy, Inc.	Coralville	Johnson	Oakdale Research Park/TIC Graduate	
Stanley Environmental, Inc.	Coralville	Johnson	Oakdale Research Park	
Vangent, Inc.	Coralville	Johnson	Oakdale Research Park	
Integrated DNA Technologies, Inc.	Coralville	Johnson	Oakdale Research Park/TIC Graduate	
Pearson Educational Measurement	Coralville/Iowa City	Johnson	Oakdale Research Park	
National Genecular Institute	Coralville	Johnson	Oakdale Research Park	
				OTHER BUSINESS INCUBATOR GRADUATES ACTIVE IN IOWA
Garvin Consulting Services	North Liberty	Johnson	Technology Innovation Center	
Ecolotree, Inc.	Lowden, North Liberty	Cedar, Johnson	Technology Innovation Center	
Accredo Therapeutics	Iowa City	Johnson	Technology Innovation Center	
Corcoran Communications, Inc.	Iowa City	Johnson	Technology Innovation Center	
Buckle Down Publishing, Inc.	Iowa City	Johnson	Technology Innovation Center	
Bio-Research Products, Inc.	North Liberty	Johnson	Technology Innovation Center	
aJile Systems, Inc.	Cedar Rapids	Linn	Technology Innovation Center	
CompuTerra, Inc.	Cedar Rapids	Linn	Technology Innovation Center	
Entrepreneurial Learning Systems	Iowa City	Johnson	Technology Innovation Center	
Caviforce Technologies, Inc.	Des Moines	Polk	Technology Innovation Center	
Sebesta Blomberg & Assoc., Inc.	Coralville	Johnson	Technology Innovation Center	
HomeSafe	Coralville	Johnson	Technology Innovation Center	
Integrated DNA	Coralville	Johnson	Oakdale Research Park/TIC	

Technologies, Inc.			Graduate	
The Patient Education Institute	Coralville/Iowa City	Johnson	Oakdale Research Park/TIC Graduate	
Police Law Institute	Coralville/North Liberty	Johnson	Oakdale Research Park/TIC Graduate	
				DEVELOPERS
Myriad Developers, Inc.	Cedar Rapids	Linn	Oakdale Research Park	
TMD, L.L.C.	Solon	Johnson	Oakdale Research Park	
Midwest Development & Invest.Corp.	Fairfield	Jefferson	Oakdale Research Park	
Liberty Growth	Iowa City	Johnson	Oakdale Research Park	
Hunter Companies	Cedar Rapids	Linn	Oakdale Research Park	
S & S Developers	Iowa City	Johnson	Oakdale Research Park	
Gary Bishop Construction	Iowa City	Johnson	Oakdale Research Park	
Build to Suit Construction	Davenport	Scott	Oakdale Research Park	
Andersen Construction	North Liberty	Johnson	Oakdale Research Park	
Kevin Hanick	Iowa City	Johnson	Oakdale Research Park	
Ryan Companies, US	Cedar Rapids	Linn	Oakdale Research Park	
NAI Iowa Realty	Des Moines	Polk	Oakdale Research Park	
Weitz Companies	Des Moines	Polk	Oakdale Research Park	
Southgate Development	Iowa City	Johnson	Oakdale Research Park	
				PROSPECTIVE TENANTS
Pharmaceutical Firm	Champaign-Urbana	Illinois	Oakdale Research Park	
Dermacia/NGI	Newport Beach	California	Oakdale Research Park	
Iowa Lions Eye Bank	Iowa City	Johnson	Oakdale Research Park	
Almac Sciences	Craigavon City	UK	Oakdale Research Park	

Germanischer Lloyd	Tarrytown	New York	Oakdale Research Park	
Financial services data center	Chicago	Illinois	Oakdale Research Park	
Noel-Levitz	Iowa City	Johnson	Oakdale Research Park	
Stem Cell Sciences	London	UK	Oakdale Research Park	
Genesis Bio Ventures	Los Angeles	California	Oakdale Research Park	
Atlas Materials	Chicago	Illinois	Oakdale Research Park	
Optherion, Inc.	Boston	Mass	Oakdale Research Park	
Service to Nonprofits	Iowa City	Johnson	Technology Innovation Center	
Magnetic Sensing Devices	Iowa City	Johnson	Technology Innovation Center	
Global Reach	Des Moines	Polk	Technology Innovation Center	
Human Medicine Start-up	Iowa City	Johnson	Technology Innovation Center	
iPig	Iowa City	Johnson	Technology Innovation Center	
UIQI2	Iowa City	Johnson	Technology Innovation Center	
JL MediTech	Iowa City	Johnson	Technology Innovation Center	
Terpenoid Therapeutics	Iowa City	Johnson	Technology Innovation Center	
Bio::Neos	Iowa City	Johnson	Technology Innovation Center	
Marketing Start-up	Iowa City	Johnson	Technology Innovation Center	
Human Medicine Start-up	Iowa City	Johnson	Technology Innovation Center	
Human Therapeutics	Iowa City	Johnson	Technology Innovation Center	
Software Development	Iowa City	Johnson	Technology Innovation Center	
Educational Measurement	Iowa City	Johnson	Technology Innovation Center	
Behavorial Diagnostics	Iowa City	Johnson	Technology Innovation Center	
Bioprocessing	Des Moines	Polk	Technology Innovation Center	
Medical Device Start-up	Des Moines	Polk	Technology Innovation Center	

The University of Iowa Research Foundation

Hands on technical assistance: The UIRF works directly with UI faculty, entrepreneurs, and investors in selecting, evaluating and developing new companies. This includes:

- IP analysis for viability of proposed company products
- IP protection strategies and execution; UIRF fronts the cost of IP protection
- Due diligence on the viability of UI spinout companies
- Business model development for UI spinout companies
- Provide *Entrepreneurs-in-Residence* for high new priority UI companies
- Provide gap funding for highest priority projects
- Facilitation of financial investment in the company
- Licensing to UI spinout companies
- Extensive mentoring and education of faculty in new company formation

Research Parks, etc: UIRF is a source of new companies for the UI research park.

Economic development assistance to Iowa communities: The UIRF worked with groups in Des Moines, Henry, Johnson, Lee, Linn, and Louisa counties in 2007 to forward economic development in those communities.

The John Pappajohn Entrepreneurial Center

Youth Outreach - Jacobson Institute for Youth Entrepreneurship

The Jacobson Institute for Youth Entrepreneurship is a comprehensive program that enriches K-12 students' lives through classroom and practical educational experiences. Created in 2007 through a generous gift from the Richard O. Jacobson Foundation, the Institute is built on three key components – teacher education, development of innovation curricula, and outreach opportunities. The Jacobson Institute provides opportunities for both instruction and practice in entrepreneurship and gives educators the tools they need to teach the "entrepreneurial mindset" – that is, to encourage creativity, innovation, critical thinking, and problem solving, and to prepare students for success in the worlds of business and entrepreneurship.

The Jacobson Institute believes that building entrepreneurial spirit in today's youth is a critical component for sustaining the country's long term economic health. By strengthening their ability to think creatively and providing the tools for understanding the entrepreneurial process, youth are more inclined to consider business ownership as a career. The University of Iowa's youth entrepreneurship initiatives began in fall 2000 as part of the John Pappajohn Entrepreneurial Center's (JPEC) plan to support entrepreneurial engagement at all ages.

Teacher Training

The Jacobson Institute for Youth Entrepreneurship and JPEC work directly with middle school and high school teachers by training them to incorporate entrepreneurship into their classrooms and providing them with ongoing support and curriculum resources throughout the school year. The two-day entrepreneurship seminar provides in-depth training on topics

including opportunity recognition, innovation and creativity, market research and analysis, entrepreneurial finance, and business planning.

Designed to simulate an entrepreneurial-based classroom, the training provides educators with hands-on learning experiences enabling them to leave the training fully equipped to implement entrepreneurial education in their respective classrooms. Coupled with ongoing support from the Jacobson Institute, participants stay abreast of additional training opportunities and are directly connected to the latest entrepreneurial resources.

Open to all teachers interested in or currently teaching entrepreneurial concepts, this program is being taught in various disciplines including, careers, business, science, mathematics, marketing, art, family and consumer sciences, and agriculture.

YouthBizCentral Online Curriculum

Educators incorporating entrepreneurship into their classrooms have access to a customized, innovative, internet-based entrepreneurship curriculum. In addition to downloading PowerPoint presentations, lesson plans, and activities on key entrepreneurial topics, teachers develop a fully customized business planning template geared to meet the specific needs of their classroom. Through completion of the business planning process, students using the YouthBizCentral curriculum learn firsthand the skills necessary for starting and running a successful business.

Through support from the Carver Trust of Muscatine, IA, the Jacobson Institute is currently developing discipline-based modules for math, science and agriculture to better meet the entrepreneurship education needs of these classrooms. Furthermore, teachers nationwide will have the opportunity to enroll in graduate level online entrepreneurship courses offered by the Jacobson Institute in partnership with JPEC.

Summer Camps

Elementary, middle school, and early high school students have the opportunity to participate in entrepreneurship camps held each summer.

With support from Hills Bank and Trust Company and the Richard O. Jacobson Foundation, camp participants hear the entrepreneurial start-up stories from successful entrepreneurs and learn the nuts and bolts of starting a business from UI entrepreneurship faculty.

In addition to networking with other young Iowans interested in starting businesses, camp participants spend the week developing business plans and designing marketing materials. Each day, students apply what they learn to their businesses. At the end of the week, participants in the elementary camp present their business plans to their peers while participants in the middle/high school camp present to a panel of judges in hopes of earning seed capital to get their businesses started.

Outreach
JPEC is committed to providing entrepreneurial education, consulting services, and lectures to the community at large in order to contribute to the growth of existing and emerging businesses. Through the following programs, JPEC impacts the economic development of the region and the state of Iowa.

Conferences & Speaker Series
The John R. Hughes Lecture Series, sponsored by Hills Bank & Trust, Inc., the Sandage Entrepreneurial Speaker Series, sponsored by the Sandage Charitable Trust, and the Community Lectures, a component of the Entrepreneur-in-Residence program, sponsored by the Iowa State Bank & Trust Company, bring successful entrepreneurs to campus to share their experiences with UI students and community members. The Iowa Venture Capital and Entrepreneur Conference and Collegiate Entrepreneurs Iowa Conference provide seminars and networking opportunities for aspiring entrepreneurs, business owners, investors, and students.

<u>The John Pappajohn Entrepreneurial Center</u>
Academic Program

- **Enrollment**
  -Summer 2006: 8 Classes/Sections, 104 Undergraduates, 25 Graduate Students
  -Fall 2006: 25 Classes/Sections, 1098 Undergraduates, 9 Graduate Students
  -Spring 2007: 29 Classes/Sections, 1240 Undergraduates, 55 Graduate Students
- **I-Envision Student Organization**
  -Members 106
  -National / Regional Conferences Attended 4
- **Business & Entrepreneurship Learning Community**
  -Members 38
  -Service Learning Projects Completed 8
  -Community Members Impacted by Service Learning 350

Client Consulting Services

- **Wellmark Venture Capital Fund**
  -13 applications processed
  -4 companies funded including one company based in the BELL and one at Oakdale
  -1 application in process

- **Bedell Entrepreneurship Learning Laboratory**
  -Number of Student Teams 24
  -Total Students Impacted Since May 2004 49

Consulting Projects

- Number of Projects 30
- Industries include: biotech, manufacturing, medical, information technology, ag services, publishing, retail

FastTrac Entrepreneurial Training Program

- **Statewide:**
  -Classes 14
  -Total participants 314
- **Iowa City Area Class:**
  -Classes 2
  -Total participants 60

Youth Programs

- **Summer Camps**
  -Youth Entrepreneur Camp (3rd-5th Grade) 44
  -Jacobson Middle School Camp in Iowa City (6th-8th Grade) 27
  -Jacobson Middle School Camp in Des Moines (6th-8th Grade) 26
- **High School Teacher Training**
  -Teachers 14
  -Locations across Iowa 1
  (Des Moines, Mason City, Davenport, Ottumwa)
- **UI Entrepreneurship Day**
  -High School Students 31
- **High School Business Plan Competition**
  -Schools participating 20

Programs, Seminars and Workshops

Date	Event	# of Attendees
7/30-8/4/2006	Okoboji Entrepreneurial Institute	10
8/10/2006	Iowa State Fair – Iowa Centers for Enterprise Booth	N/A
9/11/2006	Fall FastTrac® Class Begins	29
9/15/2006	Sandage Speaker Series: *Bob Reed*	135
9/19/2006	I-Envision Club Meeting: *Mark Warner*	100
9/28/2006	Entrepreneurial Ventures Group (EVG): *Steven Tonsfeldt, Heller Ehrman LLP*	35
10/5/2006	BELL Luncheon: Fall Kick-off	16
10/6/2006	Sandage Speaker Series: *Todd Smith*	110
10/7/2006	I-Envision Alumni Tailgate	25
10/11/2006	Iowa Venture Capital & Entrepreneur Conference (Des Moines, IA)	71
10/18/2006	Academic Entrepreneurship Workshop	41
10/18/2006	SBIR Conference	45
10/20/2006	Entrepreneur-in-Residence (E-in-R): *Pat Cobb*	7
10/25/2006	EVG: *Dr. Jim Ashton, Ashton Capital Partners*	46
10/25/2006	E-in-R: *Jim Ashton*	5

11/2/2006	E-in-R: *Merle Volding*	10
11/2/2006	BELL Luncheon	16
11/3/2006	Collegiate Entrepreneurs' Organization National Conference (Chicago, IL)	15
11/3/2006	E-in-R: *Merle Volding*	9
11/3/2006	E-in-R: *Okoboji Community Members / Business Leaders*	4
11/8/2006	Academic Entrepreneurship Workshop	25
11/10/2006	Sandage Speaker Series: *John Buchanan*	89
11/14/2006	Franchise Workshop	20
11/15/2006	SBDC Roundtable Breakfast	60
11/29/2006	E-in-R: *John Buchanan*	13
11/30/2006	BELL Luncheon	17
11/30/2006	EVG: *Dr. Joseph Falkson, Native American Capital*	47
1/31/2007	Business Succession Planning Workshop	7
2/1/2007	BELL Round Table Lunch	20
2/7/2007	Academic Entrepreneurship Workshop	28
2/15/2007	EVG: *Dr. Matthew Howard, The University of Iowa*	59
2/15/2007	Business Succession Planning Workshop	64
2/16/2007	Regional Pappajohn New Venture Business Plan Competition	10
2/19/2007	Spring FastTrac® Class Begins	36
2/20/2007	I-Envision Club Hosts Guest Speaker	35
2/22/2007	BELL Round Table Lunch	20
2/27/2007	Be Your Own Boss Conference	12
2/28/2007	Sandage Speaker Series: *Tanna Frederick*	106
2/28/2007	*Hollywood Dreams* Movie Screening	55
3/7/2007	Academic Entrepreneurship Workshop	20
3/8/2007	Franchise Workshop	7
3/29/2007	Statewide Pappajohn New Venture Business Plan Competition	4
3/29/2007	EVG: *Timothy Bechen, Kenyon & Kenyon LLP*	82
3/30/2007	Statewide Collegiate Entrepreneurs' Iowa Conference (CEIC) (Des Moines)	72
4/1/2007	Students in Free Enterprise (SIFE) National Conference (Minneapolis, MN)	20
4/6/2007	Sandage Speaker Series: *Shannon Latham*	70
4/12/2007	ISB&T Community Lecture: *Bruce Rastetter*	275
4/25/2007	Volding Business Plan Competition	20
4/26/2007	E-in-R: *Merle Volding*	8
4/26/2007	EVG: *Bill Van Sant, Paladin Brands*	75
4/27/2007	I-Envision Hensley Charity Golf Invitational	125
	TOTAL PARTICIPANTS	**2,220**

Small Business Development Center

The Small Business Development Center (SBDC) at The University of Iowa offers one-stop assistance to current and prospective small business owners by providing high quality, one-on-one counseling that is tailored to the needs of individual clients. The SBDC conducts research, counsels, and trains business owners in management, financing, and operating small businesses, and provides comprehensive information services and access to experts in a variety of fields. Educational programs are offered on topics that include taxes, accounting systems, and business planning. It also offers a wide range of training seminars concerning business skills and issues, and assists small businesses in securing Small Business Administration backed loans.

Office of Corporate Partnerships

The Office of Corporate Partnerships (OCP) serves as a primary contact for corporations, state industry trade associations and economic developers interested in collaborating with the University of Iowa. This office acts on behalf of the business community as a connector to a wide array of resources and acts as a facilitator to expedite the process of discovering and making use of some or all of the UI's resources such as business assistance, research expertise, facilities, sponsored research, continuing education and technology transfer. The OCP assists the Iowa Department of Economic Development and other state industry trade organizations in marketing the resources of the state of Iowa. In FY07, the OCP completed (45) on-site visits to Iowa companies and economic development groups; organized and participated in (3) statewide business and community forums; and facilitated (9) campus visits of national and international companies and state economic developers. The OCP identified technical needs for several companies and worked with University college liaisons to address those needs.

The Office of Corporate Partnerships completed 37 visits to Iowa companies, providing information about University of Iowa resources that may be helpful to the company. These included:

- Biotechnology Companies: Barnstead International, Embria Health Sciences, Eurofins Scientific, Feed Energy, FLI Retro Fits, Integrated DNA, JMI Labs, Protek, Oral-B, Tjaden Bioscience, Trans Ova Genetics,
- Advanced Manufacturing Companies: AY McDonald, Allsteel, Emerson, Flint Cliff Manufacturing, Heatilator, Loparex, Newton Manufacturing, Momentus Golf, Sonoco Corrflex,
- Information Solutions/Finance Companies: Bankers Trust; Compleware, Crystal Group; Donatech, Fakespace, Great River Technologies, Innovative Software Engineering, Lee Enterprise, Marsh-McLennan, McGraw Hill, MetroGroup, Northwestern Mutual Financial, Systems Unlimited, The Mudd Group, Tru-Art, Von Maur, Two Rivers & Associates.

The Office of Corporate Partnerships participated in (3) statewide business and community forums in Des Moines, Sioux City and Mt. Pleasant. In addition, the OCP arranged campus visits for the Iowa Department of Economic Development's International Department, for approximately 7 companies interested in research collaborations with the Carver College of

Medicine and the pharmaceutical capabilities of the University's Center for Biocatalyisis and Bioprocessing, Division of Pharmaceutical Services, and Center for Advanced Drug Development. Another two campus visits were arranged for economic development agencies.

4. Collaboration for economic development
Please briefly describe two or three examples of major economic development collaborative efforts with other entities such as Regent universities, Iowa community colleges, the Iowa Department of Economic Development, Iowa Workforce Development, other state agencies, other non-governmental organizations in the state.

The University of Iowa Research Foundation

ICAD (Iowa City Area Development Group): UIRF Executive Director Pam York is on the Board of Directors of ICAD (Johnson County). UIRF committed $75K to ICAD's fund raising campaign in FY06, and made funding contingent upon ICAD adding an entrepreneurial effort to their mission, which they subsequently did in FY07.

SIVF (Southeast Iowa Venture Fund): Public and private sector individuals in the southeast Iowa counties of Des Moines, Lee, Henry and Louisa are creating a joint economic development program. York has been involved with this group for some time, and helped them to formulate a plan to utilize a $175K business accelerator grant received from IDED by coupling this with a venture fund. York, with the intention of forwarding an entrepreneurial focus within this region, also participated in the *Angelou Economics* market analysis of this region, which was designed to help the group identify new industries and economic thrusts.

Iowa entrepreneurs and investors*:* UIRF regularly met with the venture firms receiving investment capital from the Iowa Fund of Funds- *Prolog Ventures* (St Louis), *Village Ventures* (Denver) to discuss deal flow and specific companies. UIRF also recruited the following people to join the UIRF Board of Directors in FY06, and interacted with these people on new ventures formation processes and specific companies in FY07:

- Curt Nelson, Entrepreneurial Development Center (Linn County)
- Matt Kinley, Equity Dynamics (Polk County)
- Dick Schwab, Woodworks, formerly Pearson (Johnson County)
- Jan Schuiteman, Trans Ova Genetics (Sioux County)

The John Pappajohn Entrepreneurial Center
JPEC collaborates with a wide range of partners in Iowa to impact the Iowa's economic development. Examples are below.

- **Iowa Venture Capital and Entrepreneurship Conference** JPEC is a major sponsor and organizer of the Iowa Venture Capital and Entrepreneurship Conference. JPEC teams with the Iowa Department of Economic Development, other Pappajohn Centers around the state, and Equity Dynamics to put this annual conference together.
- **FastTrac Entrepreneurial Training Program** JPEC has partnered with the Iowa Community College system and the University of Northern Iowa to deliver statewide the nationally acclaimed FastTrac® entrepreneurial training programs of the Ewing Marion Kauffman Foundation of Kansas City. The initiative prepares aspiring

entrepreneurs to launch new ventures and existing companies to grow their businesses. Since the inception of the partnership in fall 1997, over 3,000 Iowans have completed the entrepreneurial training programs.

- **Wellmark Venture Capital Fund** JPEC is the regional administrator of the Wellmark Venture Capital Fund, a $5 million fund created by Blue Cross and Blue Shield of Iowa to support the creation and growth of new businesses throughout the state. JPEC screens applicants, performs due diligence, evaluates business concepts, and assists applicants with their business plans. JPEC partners with area angel investors, equity fund managers, lenders, the Iowa Department of Economic Development, and the Small Business Administration to help business owners secure additional venture funding.
- **Secondary Teacher Training** The Jacobson Institute for Youth Entrepreneurship and JPEC partner with state, regional and local educational agencies to offer entrepreneurship training to educators around the state of Iowa. Introductory and advanced entrepreneurship training programs are offered.
- **Be Your Own Boss Entrepreneurship Summit** – The Jacobson Institute for Youth Entrepreneurship, UI JPEC, UI Office of Corporate Partnerships, UI I-Envision Student Organization, Community Vitality Center of Ames and the Iowa Workplace Learning Connection, jointly sponsor this one-day entrepreneurial conference open to Iowa high school students participating in the Jacobson Institute's Statewide Business Plan Competition. Held in conjunction with the Collegiate Entrepreneurs Iowa Conference, participants network with like-minded peers, listen to learning entrepreneurs and learn what it is like to start and run your own business.
- **Community College Partnerships** – JPEC has designed a distance education program which will allow students of several community colleges (**Iowa Western Community College**, **Western Iowa Tech Community College**, **Indian Hills Community College**, and **Iowa Lakes Community College**) to earn a Certificate in Entrepreneurial Studies as part of their degree programs. The partnerships with these community colleges will also allow JPEC to bring entrepreneurship education and business support to rural Iowa and will help Iowans from around the state more easily access the business and economic development resources of the UI.
- **Collegiate Entrepreneurs Iowa Conference** – A partnership among the Pappajohn centers around the state and the national Collegiate Entrepreneurs Organization to sponsor a day long entrepreneurial conference of networking, brainstorming, listening to speakers and education open to any college student in the state and region.
- **John Pappajohn Business Plan Competitions** – JPEC partners with the other Pappajohn centers around the state to offer statewide business plan competitions for college students as well as residents of Iowa.
- **Okoboji Entrepreneurial Institute** – JPEC partners with the Iowa Board of Regents, other Pappajohn centers around the state, Iowa Department of Economic Development, and the Iowa Lakes Corridor Development Corporation to offer the Okoboji Entrepreneurial Institute, a week-long immersion in entrepreneurship, designed to instill the entrepreneurial mindset in the state of Iowa's undergraduate students.
- **Committee/Organization Involvement**
  Iowa Business Council Capital Formation Hot Team

Iowa First Capital Fund Board
Planning Committee for the Iowa Venture Capital Conference
United States Association for Small Business and Entrepreneurship
National Consortium of Entrepreneurship Centers
Collegiate Entrepreneurs Organization
National Collegiate Inventors and Innovators Alliance
Students in Free Enterprise
Department of Education Entrepreneurship Program Management Committee
Planning Committee for the Collegiate Entrepreneurs' Iowa Conference
Iowa City Area Chamber of Commerce Economic Development Committee
The Institute of Business Appraisers
American Institute of Certified Public Accountants
Institute of Management Accountants
Professional Developers of Iowa
Association of Small Business Development Centers
Academy of Management
Small Business Educational & Entrepreneurial Development Task Force
Iowa Prolog Advisory Board
Iowa Association of Business and Industry
Iowa Business Educators Association
Department of Education Business Program Management Committee
Department of Education Alternative Schools and Programs
Iowa DECA
Neighborhood Center of Johnson County
Workplace Learning Connection
Community Vitality Center

Small Business Development Center

SBDC's are required by contract to keep their client list confidential. Summary data is below:

- Total Clients Served 222
  (672 Counseling Sessions)
- Business Startups 50
- Hours dedicated to clients 1,186
- Client loans $3.55 million
- Estimated jobs created by SBDC Clients 117

Breakdown by county:

5 Unknown
1 Benton
3 Cedar
1 Clinton
6 Iowa

169	Johnson
2	Keokuk
1	Lee
8	Linn
2	Louisa
1	Marion
8	Muscatine
4	Poweshiek
11	Washington
222	

Office of Corporate Partnerships

The Office of Corporate Partnerships collaborates with a wide range of organizations and entities. Some highlights of OCP collaboration include the following:

- **Iowa Biotechnology Association** – The director serves as a designate member (for VP Meredith Hay) on the IBA Board of Directors.
- **Iowa Careers Consortium** – The director serves on the ICC advisory board. The ICC is a public-private organization that markets career and life style opportunities in the State of Iowa.
- **Iowa Rural Development Council Steering Committee** – The director serves on the IRDC Steering Committee, which meets monthly and conducts quarterly forums across the state. The committee is made up of federal and state agencies, including the Regent Universities.
- **Regents Road Show (PDI Conference) –** Took the lead in organizing the planning and marketing for the 2007 Iowa Public Universities Partnership road show with ISU and UNI.
- **BIO 2007** - Promoted the University of Iowa at the Biotechnology Industry Organization Annual Meeting along with a delegation of 60 other biotechnology companies, economic developers and Regent Universities.
- **2007 Prometheus Awards** – On behalf of the IOWA Centers for Enterprise, prepared 21 nominations to the Technology Association of Iowa to recognize individuals, projects and companies for excellence in leadership and innovation in technology. Four nominations connected to the University of Iowa were honored at the awards celebration.

Broad Efforts

1. **Business Recruitment -** During FY07 the UI engaged in the active recruitment of new businesses to Iowa. UI participants included senior administrators, faculty and scientific research staff and professional staff of economic development/technology transfer units. Recruitment of out-of-state and international companies were collaborative efforts with the Iowa Department of Economic Development, Iowa City Area Development Group and Priority One (Cedar Rapids) development professionals.

2. **State Biotechnology Marketing Initiatives -** For more than a decade UI has been a partner with the Iowa Department of Economic Development and ISU in a major, sustained, strategic State presence at the annual international convention of the Biotechnology Industry Organization. In recent years they have been joined by UNI, regional economic development professionals and the Iowa Biotechnology Association to give Iowa an even stronger marketing presence at the world's leading biotech industry conference. Over the years, UI has been represented by the Office of Corporate Partnerships, Oakdale Research Park, Center for Biocatalysis and Bioprocessing, Division of Pharmaceutical Service and College of Pharmacy. UI spin off companies including Integrated DNA Technologies, Bio:Neos, VIDA Diagnostics and Cellular Engineering Technologies have also participated. UI spin off companies including Integrated DNA Technologies and EnzyMed have also participated. UI annually participates in the State marketing initiative at BIO. The State's considerable investment in sustaining its BIO presence since the early 1990s gives Iowa international visibility in the biotechnology industry.

5. Please provide the following information about Grow Iowa Values Fund projects for FY 2007:

a. **Identify and briefly describe each project or initiative which received GIVF funding in FY 2007 including information on outcomes and progress made**
b. **Identify metrics which were used to measure outcomes for each project and report progress on each metric for FY 2007.**
c. **Provide a description of the sources of the matching institutional dollars for each GIVF-funded project**

Using The University of Iowa allocation of Grow Iowa Values Funds, the Office of the Vice President for Research established and implemented a program that incorporates two distinct and interdependent phases:

- **I-START** (first phase of investment) is targeted toward **immediate or short term needs** designed to directly **facilitate university-private sector partnerships** in entrepreneurship and the **creation of new companies and jobs in Iowa**.

- **I-GROW**(second phase) is designed to address the **middle to long term commitments** needed to **strengthen the University's capacity** to **promote and sustain high tech entrepreneurship** in the region and **build new networks** of technical-financial-business capabilities that will **stimulate and sustain the growth of new companies and industries** that provide high paying jobs for the citizens of Iowa.

<u>VP for Research</u>

GIVF Funds: $ 178,255; match $178,255 from Vice President for Research Enrichment Fund – Total of $356,510

These funds were used for salary and fringe benefits of a new Associate Vice President for Research: Economic Development and for start up equipment, travel and office expenses, utilities, memberships for this new office and position.

These funds allowed the hiring of a seasoned (25+ years experience) technology transfer and economic development professional to lead the IOWA Centers for Enterprise and UI's economic development initiatives.

Office of Corporate Partnerships

GIVF Funds: $ 83,506, match $ 83,506 from Vice President for Research Enrichment Fund. Total of $167,012.

These funds were used for salaries and fringe benefits of the Office of Corporate Partnerships (OCP) Director and one staff person, office supplies and operating expenses, travel, marketing materials, memberships and other expenses of the OCP.

In FY07, corporate outreach included 37 visits to Iowa companies and visits to 8 economic development groups, 9 campus visits, 3 business and community forums. This year the IOWA Centers, via the OCP hosted events for the Professional Developers of Iowa annual meeting and the OCP produced and distributed widely throughout Iowa marketing materials describing the IOWA Centers and its programs and services.

Technology Innovation Center and Oakdale Research Park

GIVF Funds: $710,750; match $700,00 from Ryan Companies upfront payment and $10,750 from Vice President for Research Enrichment Fund. Total of $1,421,500 .

The master planning consultant, Sasaki Associates, completed its report for a new blended master plan for the Oakdale Research Park and Oakdale Research Campus. These recommendations are already reflected in four new and planned construction projects. The University also hired a consultant firm to assist in preparing a signage plan, and new covenants and architectural guidelines are being developed by RDG IA, Inc. Finally, we have retained a firm to assist us in preparing a marketing plan for the Research Park and BioVentures Center/Technology Innovation Center.

The remainder of the funds are to be used to retain an architect and developer to design and build a 35,000 sf BioVentures Center. The building will be owned by the developer and operated by the University as a life sciences business incubator. Total cost of the building when constructed will be approximately $8 million. The University is paying certain upfront costs so that the lease price back to the university will be low enough to allow start-up company tenants to afford the sublease cost. (The University will sublease the spaces to incubator tenants.) Design of the building is essentially complete. Construction will begin fall 2007 and be completed fall 2008.

John Pappajohn Entrepreneurial Center

GIVF Funds: 93,145 match $93,145 from Vice President for Research Enrichment Funds and the Tippie College of Business. Total of $186,291.

These funds were used by the John Pappajohn Entrepreneurial Center to support the hiring of graduate students and partially to support the hiring of a Faculty entrepreneurship coordinator. The results of this investment lie in three major areas including the JPEC Entrepreneurial Ventures Group (EVG) Speaker Series, the JPEC Academic Entrepreneurship Workshops and JPEC Consultative Services

I-GROW – Subramanian

GIVF Funds: $325,000; match $325,000 from Biosciences Start Up Funds. Total project $650,000.

GIVF I-GROW funds were used as part of a faculty start up package that allowed the University to attract Dr. Venkiteswaren (Mani) Subramanian to serve as director of the UI Center for Biocatalysis and Bioprocessing (CBB). Prior to coming to UI, Dr. Subramanian was Global R&D Director of Biotechnology, Bioprocessing, and Bioinformatics for Dow Chemical Company. He brings 24 years of industrial experience and an entrepreneurial approach to the University. This start-up package was essential to attract this highly entrepreneurial faculty member to the University of Iowa.

FUNDS Committed to Projects (no expenditures from FY07)

University of Iowa Research Foundation (UIRF)

GIVF Funds: $310,000; match $310,000 from UIRF Funds. Total project of $620,000.

These funds have been reallocated for expenditures in FY08. We anticipate the funds will be used: (1) to engage a consulting company to assist the UIRF in managing its backlog of invention disclosures, (2) to fund additional gap funding proposals, and (3) to engage CEOs-in-Residence to assist the UIRF in building venture capital fundable spin-out companies.

Arnold Seed

GIVF Funds: $8,494; match $8,494 from Vice President for Research Enrichment Funds (forthcoming). Total project of $16,988.

Mark Arnold, Department of Chemistry (ASL Analytic Inc.) tested and integrated a new proprietary component with an existing large lab instrument as a key milestone toward creating a small, cost-effective portable instrument to monitor glucose urea and lactate for

critically ill patients. ASL has raised $250K in financing, hired one employee and obtained a prestigious NIH $1M grant to develop a related product.

Abramoff Seed

GIVF Funds: $14,171; match $14172 from external grants and contracts. Total project of $28,343.

Michael Abramoff, Department of Opthamology (iOptics, Inc.) is developing a low-cost, high resolution camera for diagnosing eye diseases including macular degeneration and diabetic retinopathy. He completed two prototype cameras and accustom USB interface that allows the camera to be portable, evaluated its ability to detect lesions and designed the human clinical trials to demonstrate diagnostic capability. An MBA student project was done in parallel to examine market factors impacting the introduction and adoption of such a camera. The intention is to develop a company that provides products and/or services for diagnosing eye disease. These funds continue the program of support started with FY06 GIVF funds.

Johna Leddy

GIVF Funds: $12,500; match $12,500 from external grants and contracts. Total project of $25,000.

These funds were used to support work by a faculty member (Dr. Johna Leddy) to develop further a non-invasive glucose monitoring device. This device, if successful, will address a very large market need. This is the second year of a two-year funding.

Support for Additional IOWA Centers for Enterprise Activities (these are the funds that are not allocated yet)
Anticipated - GIVF Funds: $189,178; match $189,178 from various sources, including, Vice President for Research Enrichment Funds, JPEC Foundation Accounts, Oakdale Research Park Reserves and External Grants and Contracts. Total project of $378,356.

6. **Please provide the following information about Battelle-funded projects for FY 2007:**
   a. **Identify and briefly describe each project or initiative which received Battelle funding in FY 2007 including information on outcomes or progress made**
   b. **Identify metrics which were used to measure outcomes for each project and report progress on each metric for FY 2007.**

Battelle Program Summary	Description of Program	Funding Amount	Allocation to Projects	FY07 Expenditures (July 1, 2006 – June 30, 2007)	Progress through June 30, 2007
Infrastructure	To create a joint venture partnership between The University of Iowa, regional economic development leaders and the private sector to expand and develop a new Technology Incubation Center and Research Park on the Oakdale Research Campus.	$2,720,000	New TIC $1,320,000	$ 50,792	Design of a new BioVentures Center is complete. Construction to begin in the fall of 2007.
			Myriad Purchase $1,300,000	$1,300,000	Building at Myriad Plaza on the Oakdale Research Park was purchased and renovated. This building allowed the University to provide space for a California based start-up company.
			Myriad Fit-out $100,000	$ 0	The purchased Myriad building was renovated to accommodate the California based start up company. Funding to be re-budgeted to the new UI BioVentures Center to begin construction fall 2007.

Battelle Program	Description of Program	Funding Amount	Allocation to Projects	Funding Spent To Date	Progress through June 30, 2007
Endowment	Description: To create an endowed professor- and/or entrepreneur-in-residence program to attract world-class, entrepreneurial talent in the core platform areas.	$2,000,000	Long term Investment Pool $2,000,000	$2,000,000	One endowed professor ($100K/year for three years) position was filled allowing us to retain one of our most prolific and entrepreneurial professors (July 1, 2007). Without this endowed professorship, we would have lost him to a University on the East coast. This professor recently obtained a $15M NIH grant and is affiliated with Optherion, which also recently closed on a $30M venture capital investment. Funding was $50K from interest income and $50K match from academic department.

Battelle Program Summary	Description of Program	Funding Amount	Allocation to Projects	FY07 Expenditures (July 1, 2006 – June 30, 2007)	Progress through June 30, 2007
Core Platforms	Description: To provide financial assistance in the form of grants to accelerate the transformation of new and ongoing research and development initiatives in the core platform areas into	$3,690,000	Myriad Fit-out $1,090,000	$1,059,368	• Renovation of space in Myriad Building completed. • NGI moved into this space in early 2007. • Upon vacating this space for space in a new building, the UI Center for Advanced Drug Development will occupy the Myriad Building space.
			8 Core Platforms $ 900,000	$ 442,574	See pages 33-35 for detail

	commercial opportunities.		$1,700,000 Phase II funding of 8 Core Platforms	NA	Phase II funding will be allocated once review of initial progress on individual projects is completed.

Core Platform PI Details	Title of Battelle Proposal	Battelle Funds Awarded	FY07 Expenditures (July 1, 2006 – June 30, 2007)	Platform	Progress through June 30, 2007
Abdel-Malek Team	Commercialization of Santos, a Human Simulation Environment	$370,000	$12,641	IT, AM	• A national search was launched to recruit a professional software engineer to lead the production effort. • Several releases of pre-beta software versions have been installed at our industry partners facilities and all are being used. An entrepreneur-in-residence has assisted in evaluating the business opportunity.
Leno Team	Designing Transgenic Cells for Biomedical Applications	$400,000	$115,453	Bio-genetics-transgenic cell lines	• Hired Research Assistant for the funded position. Currently interviewing candidates. • Purchasing and setting up project-related equipment. • Establishing assays for TNFa and Luc reporter expression in virus-infected HeLa cells. • Developing business model for *RepGenix*. • Discussing business opportunities with potential partners, i.e., Trans Ova Genetics and iPig, and customers, e.g., NuPotential, LLC – Baton Rouge. • Ten primary porcine fibroblasts with high cloning potential were established. • Initial AAV transduction studies were conducted. • An Apoe AAV targeting vector is currently under construction. Preparing a STTR grant application in collaboration with *RepGenix* to fund production of targeted transgenic cells.
O'Dorisio Team	Development of Peptides for	$400,000	$21,941	Bio-imaging &	• Identified three peptides to use as first candidate drugs. • Submitted an NIH grant to support the preclinical studies.

	Diagnosis and Therapy of Cancer			drug discovery	• Developed specifications for the synthesizer to be used in the research and for GMP production. • Identified person to operate the synthesizer. Identified suitable space to house the synthesizer and operate under GMP conditions
Shields	Iowa Neuro-Musculoskeletal Therapeutic Training System: Impact on Commercialization in Iowa	$130,000	$1,708	Bio-therapeutic/ medical device	• Most progress to date was made using leverage funds. • Developed the computer drawings (CAD) of a hinged-type knee brace that will attach to the leg below and above the knee. This has been manufactured and is operational. • Designed a brake power controller in the inventor software. Included in this design is a controller circuit that uses modern surface mount components. • Designed all of the algorithms, and are searching for the key engineer/programmer to write the new software for this project. • Identified 2 Iowa companies interested in manufacturing the final product. • With SENSR in Elkader, IA have developed a plan to advance the technology and transfer to the commercial market.
Van Beek Team	Iowa Imaging-Based Multi-center Trials Organization	$400,000	$87,212	IT; Bio-imaging	• Established a solid database that can be used for clinical trials. Hired 1 FTE (two people; both IT programmers) to work with VIDA to explore pros and cons of commercially available or free software versus an in-house developed archiving/reporting database. • Establishing additional partnerhships with Compleware in North Liberty. • Established dedicated office space at Technology Innovation Center, close to VIDA Diagnostics. • Established regulatory affairs position, advertised the position, and identified several potential candidates • On track for receiving a first VIDA Diagnostics trial through a contract with GlaxoSmithKline.
Welsh	Porcine Models of Human Disease	$400,000	$55,658	Bio-genetics-animal models	• Produced cell line with appropriate Cystic Fibrosis (CF) genetic profile to use these cells to generate a “knock out” CF pig. • Introduced the most common human CF mutation into pig cells that were then used to clone the first ever “knock in” pigs • Significant progress made in adopting clinical methods for CF pigs to establish baseline levels in normal animals.

Griffith Team	Development of AD5-Trail as a Cancer Therapeutic	$400,000	$108,560	Bio-genetics-cancer therapy	• Commenced testing on the next lot of clinical vector. This testing will be performed by AppTec. • Communicated with Cedar Croft Capital regarding possible financial support for company development. • Have completed human testing in 1st three dose levels (9 pts.) • Contracted several companies about further development and licensing.
Weiss Team	Design and Testing of Novel Toll-like Receptor 4-Directed Immunomodulators	$100,000	$39,401	Bio- drug delivery, genomics	• Using leveraged NIH funds, prepared for animal experiments that will soon follow by completing the following: prepared and purified needed amounts of wild-type and variant endotoxin:MD-2 complexes, tested *in vitro* for quality control characterization and prepared chemically cross-linked complexes. • Immunogen and immunization experiments to begin in February and March.

7. Optional: If desired, please include observations regarding:

a. Emerging trends in university economic development and technology transfer

b. Availability of startup and venture capital for technology entrepreneurs

c. Suggestions for new programs or activities that could further enhance the impact of university technology transfer and service on creation of jobs and wealth in Iowa.

a. Emerging Trends- There is a national trend toward more university involvement in economic development. More venture and angel investors are engaging with university tech transfer groups. National conferences held by early stage investors and conferences held by university tech transfer groups are merging. Experienced business and new venture development professionals are becoming common place in university tech transfer organizations, and university tech transfer conferences are presenting relevant business and new venture sessions. Successful university research parks have vibrant laboratory-based business incubators that provide both facilities and active business support programs for their start-up companies. Most successful university business incubators are constructed debt free, or close to it. Graduate space for incubator companies – sometimes called accelerator space – is becoming a mainstream program to support companies as they graduate from life science and technology incubators.

b. Available capital- There is an excess of capital for good business concepts. Iowa entrepreneurs/companies that have difficulty raising money tend to lack the criteria that venture investors seek, such as addressing a large market opportunity, and/or an experienced management team. This situation is gradually improving in Iowa. UIRF is regularly sought out by top tier national venture capital firms to evaluate opportunities in our portfolio, and 3 companies were formed with such groups in the past 18 months.

c. New Programs- The top priority is finding people with highly specific high tech market sector experience and new high tech company formation experience.

University of Northern Iowa
Battelle Projects
As of 12/31/2007

The University of Northern Iowa was awarded $3.18 million to develop research capacity related to key economic development clusters identified in the Battelle Reports. UNI invested these funds in key research programs that have the greatest potential to contribute to economic development in the state of Iowa. By supporting a portfolio of near, mid and long-term projects, UNI seeks to expand a pipeline of research that will create opportunities for technology transfer in the coming years.

Since 2006, UNI has accelerated the research agendas of 13 projects in biosciences, information solutions and advanced manufacturing. The Battelle funding will not only make it possible for new products developed at UNI to reach the market, but it has also provided enhanced research opportunities for graduate and undergraduate students, and will contribute to an advanced workforce.

The Battelle Report, *Iowa's Bioscience Pathway for Development*, outlined the following three actions for building research capacity at the Regents Universities in Iowa.

1. Undertake key recruitment, capacity building, and required investments to ensure rapid progress in the Battelle platforms. $923,049 expended through 12/31/07

UNI has allocated $1 million in Battelle funds to provide salary support for faculty members engaged in research projects with the potential for commercialization. Since 2006, faculty members received support to work on 12 projects. Seven of these projects were in the Biosciences. These funds supported 6 new faculty members whose primary research focused on creating new products related to the bioeconomy and advanced manufacturing. These funds were used to accelerate the establishment of their research programs of these key contributors to technology transfer. Funds were used to support new faculty on some of the research grants identified in Section 3, as well as for the following research:

- A "phase 2" orthotic insert for lower leg amputees.
- A patentable neural network-based and other data-mining algorithms for mining Enterprise Resource Planning (ERP) databases.
- The integration of UNI grapevine identification data with the international plant germplasm database.

2. Invest in strategic technology development infrastructure to strengthen and accelerate the scientific and commercialization work of the core platforms.
$925,167 expended through 12/31/07

UNI received $1.36 million to renovate and equip research laboratories used in the Battelle projects. In April of 2007, $133,797.00 purchased fixed equipment from Wynn O. Jones for the appurtenant rooms in Physics, McCollum Science Hall and the Greenhouse. That equipment has been received, installed and is paid out at 100%

Appurtenant infrastructure components (bricks and mortar) include but are not limited to: New Research Greenhouse, New Greenhouse Research Lab and cooler – Biology Research Rooms 107, 109 & 109A – Chemistry Research Rooms 111 & 260 – Physics Research Rooms 001, 202 & 302

Overall construction progress is over 95% complete for the Physics contract and over 95% for the McCollum/Greenhouse contract. The work in many areas is 100% complete. All of the areas are substantially complete. The work has been reviewed for correctness and acceptability. Lists have been generated detailing corrective measures necessary to comply with the contract documents. The contract requires that the University hold 5% of the total amount until final acceptance. Final Acceptance can occur when all of the contractual obligations have been met by the contractor. We anticipate paying out the remaining funds in early 2008.

3. Institute a grant program to support research in the core platforms.
$439,451 expended through 12/31/07

UNI held an internal competition to select applied research projects with the greatest potential technology transfer and commercialization. With input from the Technology and Commercialization Resources Organization, 8 projects were funded. Eleven UNI undergraduate and 9 graduate students have participated in these research projects thus far.

Progress of Battelle Projects

So far these projects have leveraged an additional $427,000 from industry and government sources. The following industry partners are collaborators on Battelle research projects:

Department of Energy
Golden Grain Energy
Renewable Energy Group
Environmental Lubricants Manufacturing
Montana Polysaccharides
American Metalcasting Services
Recon Robotics
Rockwell Collins
Doerfer Corporation
DisTEK
Iowa Energy Center
Team Technologies
TeraGrid
FastServers Inc.
S.S. Steiner, Inc.
Bio:Neos
Pharmacon
TDS Automation

Within 30 months, some of the Battelle projects are expected to result in new products or services, including: new biolubricants, a biobased foundry binder, a software application for protein structure prediction, and a commercial computing grid. The following Iowa companies have been identified as likely licensees or consumers of these products:

Environmental Lubricants Manufacturing Inc.
Bender Foundry Services
Bio:Neos
John Deere
Pharmacon

The following projects are currently underway:

Bioeconomy

Ethanol & Biodiesel Byproducts as Base Oils for Biobased Industrial Lubricants. The intent of this research is to determine whether corn oil and glycerin, byproducts of ethanol and biodiesel production,

respectively, have potential for use in the development of biolubricants. NABL secured 1:1 matching funds from the US Department of Energy to leverage the State's Battelle funding for this research. Tribological and performance testing were conducted to evaluate each of the samples collected within each category of byproduct, including byproduct corn oil, glycerin, and methyl esters. These byproduct samples were obtained from Renewable Energy Group (REG) of Ralston, Iowa, and Golden Grains Energy, of Mason City, Iowa.

After identifying the relative benefits of each byproduct tested, NABL scientists were able to compare the byproduct strengths with qualities needed for many common lubricant products. After looking at several possibilities, NABL settled on the development of a product to be used in the drilling of petroleum oil wells, common throughout the southern United States, and elsewhere.

Several companies involved in the oil well drilling industry have been contacted, and one has agreed to partner with NABL to develop a product competitive with the petroleum oil-based formulation currently in use by the industry. After a visit by three NABL staff members to an actual oil well drilling site in Texas, and subsequent discussions with the company, a non-disclosure agreement has been signed. The company is expected to send representatives to visit the NABL Center soon, with additional development work to follow, and eventual field tests in Texas, if the product successfully passes bench scale laboratory testing at NABL.

Development and Commercialization of a foundry Binder System Based on Polysaccharide bio-feed stock. The overarching goal of the UNI Metal Casting Center's research in foundry binder systems is to find bio-based substitutes for the current petroleum based binder systems that hold sand in the shape of a mold in which to cast molten metal. The specific binder system is the phenolic urethane system, which currently holds about 80% of the foundry binder market. This system is composed of three parts:

- Part I: the phenol-formaldehyde resin
- Part II: the isocyanate resin
- Part III: the tertiary amine catalyst, which could be in either gaseous or liquid form

Battelle research completed thus far indicates the best prospect for commercialization is a Part I replacement consisting of corn syrup with a solvent package involving an alcohol (such as methanol, ethanol, or isopropanol). This new system utilizes Iowa grown corn syrup and has shown great promise in both replacing petrochemical materials as well as reducing hazardous air emissions of the ferrous and non ferrous casting process. This material has exhibited improved physical properties to conventional polymers based on petrochemical feed stocks and has shown to be superior in environmental characteristics. The material is also very cost competitive with conventional materials. In December of 2007 the center applied for a provisional patent to protect the intellectual property.

Several companies have expressed interest in negotiating with the university in an effort to license the technology for commercial use. The center is requiring that interested companies sign a non-disclosure agreement in order to add an additional layer of security for the technology. The market for the technology is estimated at 1-1/2 billion dollars on a worldwide basis. Future efforts will include the submission of the formal patent application and the negotiation of terms for the licensing of the technology.

Biodefense and Biosecurity

Robotics-Deployed Detection of Biological Agents. Following reconsideration of the market potential, intellectual property value, prototype design and proof-of-concept constraints and following consultations with local engineers, Michael Walter altered his research focus to a more productive and profitable development of a sensor, rather than on narrow robotics deployment of the original proposal. More

specifically, Walter is developing a prototype anthrax detection sensor based upon phage affinity reagent (PAR-), QCM based sensing capabilities. The prototype will be used to achieve proof of concept for the sensor with live anthrax agent (at approved BSL3 facilities).

Phase I of this project aims to produce a design and bid for building a prototype that can be bench-tested with both safe and lethal anthrax spore strains, which will complete our proof of concept level studies. In collaboration with partners from Doerfer Corporation and TDS Automation (Waverly, Iowa), impressive progress has been made on the design of the initial 'book sized' small prototype of a complete bio-agent detector. We are now ready to move the Phase I stage into contract-based work. We have completed discussions regarding design of the initial prototype, including design constraints, size, orientation, flow tolerances, redundancy testing, sample processing etc.

This fluid-handling 'manifold' will collect air samples, suspend particulates from samples in buffer and route the buffer-suspended particles though bubble removal devices and on to 'test chambers' where the samples will be tested for the presence of airborne spores or bacteria of bio-agents. The manifold consists of a plastic block containing various buffer and waste reservoirs, check valves, chambers and pumps, designed to handle small amounts of sample fluids.

UNI will contract with TDS Automation in the next month to manufacture the small prototype. Phase II of the project includes miniaturization of the detector prototype (Prototype II), which will be used in further testing with lethal Ames strains of anthrax at an appropriate BSL3 facility.

Post Genomic Medicine

Commercialization of protein structure prediction technology. Alexsandar Poleksic and Mark Fienup proposed to develop novel and improved methods for computational protein structure determination from the sequence of amino acids, and commercialize a software package based on their innovations.

To carry out the work proposed, Fienup and Poleksic configured and installed the necessary hardware and software. Following computer lab completion, they built a computer cluster for benchmarking and software development, with alll seventeen computing nodes now completed and tested. A database of protein models has been created and loaded with approximately 20,000 representative protein structures to serve as templates in the protein modeling process. This past semester, they created a relational database of the experimental protein 3-dimensional structures consisting of X-ray and NMR atomic coordinates of all proteins of known structure. This database is used as the "template library" for the structure prediction algorithm. Next steps include completion of an accurate protein three-dimensional structure determination algorithm and development of a Web interface for the algorithm.

Advanced Food and Feed

Identifying drought tolerance genes in the reproductive structures of barley. Tilahun Abebe and colleagues plan to discover genes for drought tolerance in barley flowers that can be used to develop new Iowa crops resistant to drought in the sensitive reproductive stage. The project has two main objectives 1) determine gene expression at the transcription (mRNA) level in drought-stressed tissues using the Affymetrix Barley1 GeneChip, and 2) analyze gene expression in drought-stressed tissues at the proteome (protein) level using two-dimensional protein gel electrophoresis (2-D protein gel).

A postdoctoral research associate was hired to assist with this project. Dr. Abebe and his research team have completed the growth of barley plants in a controlled environment chamber, exposed them to drought, collected tissues (husk, awn and seed) and extracted ribonucleic acid (RNA) from drought-stressed and non-stressed (control) tissues. Preliminary analysis of the hybridization data revealed that

more genes were induced by drought in the awn and husk (consists of lemma and palea), compared with the seed.

Gene expression at the protein level was studied using 2D gels and peptide mass-fingerprinting. Total protein was extracted from stressed and control awn, lemma, palea and seed. Equal amount of protein (1.5 mg) from each tissue was separated using 2D gel electrophoresis followed by coomassie blue staining. Over 600 protein spots were identified from each tissue regardless of stress . Awn, lemma and palea had more proteins up-regulated during drought than the seed. Awn, lemma and palea have many proteins that are similar.

Representative proteins that were up-regulated in stressed tissues were cut from the gel and digested with trypsin to determine identity of proteins by peptide mass-fingerprinting at Iowa State University Proteomics Facility.

Faculty/Student Collaboration on Commercializable Research. Two UNI faculty proposed to work with students to discover plant genes that would be used to develop plant-made pharmaceuticals and fungus resistant crops.

Fungus resistant crops

Dr. Jurgenson and his research team have isolated F.verticilliodes resistant variants of the native grass Tall Dropseed (Sporobolus compositus (Poir.) Merr.). In these experiments seedlings of this grass have been challenged with massive numbers of infectious spores of the plant pathogenic fungus. About 1-2% survive, apparently unscathed. Our researchers have been able to grow these plants and get them to flower. Since this project has been going only for a year, there has not yet been a large amount of seed from these resistant plants. Researchers have finally been able to get seeds produced by some of the resistant plants (12 resistant plants were isolated). Seeds from these plants were collected and stored in the freezer for 6 weeks to induce germination. The seeds were then sterilized and plated on germination media to determine the viability of the seeds. Some of the seedlings were exposed to fungi and survived the assault and so appear to also be resistant to fungal infection. However our numbers are too small at this time to be statistically significant.

The next step in the characterization of this Resistance trait is to locate the gene. The most reliable way to do this is through genetic mapping. This can only be done with a set of recombinant progeny (called a mapping population) from a genetic cross between our resistant strain and a susceptible strain. Alternatively, it may be possible to use tissue culture methods to develop a mapping population from our resistant strain through the culture of pollen grains, which can be induced to grow into mature inbred plants. This effort is ongoing at this time.

Ultimately, our research team wants to know if this gene will protect corn from infection by Fusarium verticilliodes. To learn the answer to this question, the gene will be inserted into the genome of corn so that it is expressed. Protection will be observed by challenging these modified corn seedlings with infectious fungi.

Plant-made pharmaceuticals

The proposed project aimed at genetically engineering the hop plant (Humulus lupulus L.) for increased production of pharmaceutically valuable compounds. Battelle funds were used to initiate and optimize hop tissue culture and in vitro propagation.

Hop calli have been established during Summer and Fall 2007 from sterilized greenhouse explants. The effect of 6 different hormone combinations on callus growth has been investigated in detail during summer 2007. Approximately half of the calli turned green and seem to be proliferative in tissue culture. These calli were used to initiate shoot cultures in the temporary immersion system. Our data provide a new ground for improving hop transformation via callus transformation (either by using the gene gun or Agrobacterium). Callus transformation has not been reported yet for hops and may result in improvments over existing protocols. Besides establishing callus lines, suspension cell lines could be initiated from callus. Callus and suspension cell lines will both be useful tools for investigating environmental factors affecting production of phytopharmaceuticals in hops. They will also be useful for the eventual establishment of a gene knockout system for hops.

Based on the promising work thus far, a corporate partner has agreed to support the ongoing hop transformation effort in our UNI laboratory. This corporate partner has agreed to fund salary, travel, and supplies for a shared postdoctoral researcher and a visiting Ph.D. student to work on the next stages of hop transformation.

Information Solutions

Commercial Computing Grids. Paul Gray proposed to create a High Performance Computing grid to provide academia and industry with accessible, secure, and scalable computing infrastructure. This statewide resource will provide a computing fabric needed to support new economic development in financial services, engineering and biotechnology in Iowa.

A majority of efforts this quarter focused around re-integration of the Battelle computational resources back onto the UNI campus. Part of the first-year project endeavors involved assembly of computational components in rack space at the TEAM data center in the CF Industrial Parkway. The cost of a one-year service agreement was part of the matching costs of the grant provided by TEAM. Due to significant growth at the TEAM data center in Cedar Falls this year, TEAM was unable to extend the cost-sharing component of data center space into the second year. The move of systems from TEAM back to UNI is not a setback, but rather a necessary aspect of the three-year project development.

The computational components are currently awaiting re-integration into the new UNI data center facility located in ITT 128. Prior to the migration, project development had reached the pricing and accounting stage.

The business model being developed centers around the ability to distribute computational tasks across otherwise-idle computer systems. Software support for this paradigm has been developed and implemented during this first year. At this point in the project, our efforts are focused on being able to implement an accounting mechanism on top of the existing software stack. Once a mechanism for tracking system utilization is integrated, our attention will turn to establishing a valid pricing model. These facets of the project will start up again once the migration of the systems back to UNI is completed.

Faculty/Student Collaboration on Commercializable Research. A faculty team proposed to work with students to develop a novel system for automatically reading utilities meters using wireless mesh networks. Automatic Meter Reading (AMR) is an electronics system that provides remote meter reading of usage rate of electricity, gas, water and other related information. The primary goal of this project was to build an IEEE 802.15.4-compliant wireless mesh network based AMR system that is more cost-efficient and able to implement real-time data collection. This utility data collection system will utilize the

two-way communication between AMR nodes to forward the readings back to a collection center or AMR server and therefore minimize the use of other infrastructures.

The CC2430ZDK IEEE802.15.4/Zigbee development kits and IAR Embedded Workbench have been used to develop the experimental models. The CC2430EM module has been tested and studied. We have designed a routing protocol for a small-scaled mesh network with 10-20 nodes. A four-node communication model has been successfully tested. We expect to demonstrate the prototype of a 6-10 node network in the laboratory during summer semester of 2008.

Advanced Manufacturing

Commercialization of Leading Edge Paint Removal Technologies. The Iowa Waste Reduction Center (IWRC) staff have developed a VirtualBlast system based on their existing VirtualPaint™ virtual reality training tool. The VirtualPaint Blasting patent is currently in draft revision. The application should be completed and filed in early 2008. The expected public release of the abrasive blasting simulator is March 2008 at the Corrosion 2008 Convention in New Orleans, LA

An additional tool to aid in paint removal, a laser-guided depainting attachment (LaserBlast) was patented. Initial talks with Marco (of Davenport, IA) were halted. New lines of communication with other businesses/organizations are being opened to integrate IWRC developments into current product lines

Faculty/Student Collaboration on Commercializable Research. Three faculty teams will work with students to enhance the properties of materials used for novel nanoscale devices and miniaturization of components; to prove the utility of a novel laser interferometer for non-contact measurement of nanoscale surface vibrations; and to compare the performance of bio-based with petroleum-based cutting fluids during machining.

<u>Novel nanoscale devices</u>
Three separate projects related to nanoscience research were initiated during the past year:

- The first area of research is in utilizing quantum dots for improving the efficiency of solar cells. Researchers hope to develop a solar cell prototype far more efficient than the present standard. The two materials were chosen for their ability to create multiple electrical carriers from a single photon of light. We are attempting to investigate PbSe quantum dots for use in solar cells as grown on silicon substrates. Quantum dots are a small collection of molecules with properties that differ significantly from the standard bulk material. In the case of PbSe, it has been shown that PbSe quantum dots can harness a much greater portion of the solar spectrum than usual. This would enable a solar cell made from this material to be much more efficient than current devices. By enabling growth on silicon, this will allow for the development of relatively economical solar cells that retain the high purity needed for optimal conversion of solar energy to electricity. In the past three months, we have been able to create large quantum dots of this material, although we still need to attain a better control over size and spacing between the dots.
- The second project involves the study of transition metal dichalcogenide materials (TMDC's). TMDC's are layered materials that are highly two dimensional in nature, with a separation between the layers of 0.6 nm. It is possible to incorporate different atoms between the layers, making them attractive for hydrogen fuel cell applications and rechargeable batteries. The samples are also bonded very weakly between these layers, so that they exhibit excellent qualities for lubricants. We have created several materials in collaboration with Dr. Strauss of the Chemistry and Biochemistry department for study. Our initial results have shown that the incorporation of small amounts of Manganese ions can weaken the layer bonding and perhaps

optimize the crystals for use as lubricants. We have also begun a collaboration with Dr. Tao Xu of N. Illinois University to investigate the abilities of TiSe2 and modified TiSe2 for hydrogen storage. Future work includes the development of nanotubes made from these materials, creation of different novel systems, testing of macroscopic lubrication properties, and magnetic and electrical property measurement with Dr. Shand of the Physics department.

- The third project involves using nanoscale films to reduce corrosion in metals. These films could be economically viable for use in situations where standard techniques can not be applied. Our initial investigations used gold films of thickness no greater than 100 nm. The films were applied in vacuum with no post deposition heat treatment. We have explored the oxidation process in 316 stainless steel both heated in air and exposed to saltwater (concentration similar to that in seawater) at elevated temperatures. We have found that while the coatings do somewhat inhibit oxidation at elevated temperatures in air, the adhesion of the films to the stainless steel is not yet sufficient. Atomic force and optical microscopy reveals a clumping of the gold atoms on the surface that leaves too much of the steel exposed. We have successfully completed an in depth study of the oxidation process for 316 stainless steel at elevated temperatures in air, however. This will be useful as a standard of comparison for future film studies. We will continue the research by utilizing different films, introducing post vacuum heat treatments, and more easily corroded steels.

Performance of biobased versus petroleum based cutting fluids during machining

Tool life and surface roughness are two important measurements to study the bio-based cutting fluids. A fixture was designed and fabricated in the Production Lab in order to measure workpiece surface roughness without interrupting turning operation setup. With the initial machining parameters such as cutting speed, feed rate, and depth cut defined in the previous stage, 4140 steel and carbide insert (insert code: CNMG432 K313) were applied in numerical trial experimental runs under dry cutting conditions to estimate tool life. Copper coolant tubes and accessories were fabricated and installed in the CNC lathe. Following the manufacturing suggestion and literature review, petroleum based cutting fluid (5% of Castrol Clearedge 6550) has been used to test the CNC lathe coolant system. Next steps include hiring a student research assistant to begin collecting experimental data.

The use of a novel miniature laser interferometer for two commercial applications

Researchers have demonstrated the ability to detect very minute vibrations of solid surfaces by laser interferometry. Specifically, they can detect, with no contact with the surface, the amplitude of vibrations to better than ±5 nanometer. Nanoscale detection of surface vibrations has possible applications in early detection of miniature cracks and other surface defects. Patenting is in process for this technology.

Researchers have also been able to excite and measure the resonance frequencies of a very small volume of fluid. The data yields the surface tension with no contact with the fluid. Our test measurements on pure water and a number of other fluids and mixtures are quite promising. A patent disclosure has been submitted to the UNI Intellectual Property Committee. Patenting is in process.

University of Northern Iowa
Annual Economic Development and Technology Transfer Report
FY 2007

Section 1. UNI's Economic Development Activities to Enhance Economic Growth in Iowa

UNI's economic development efforts are unique in the fact that they focus on, and excel in very specific areas. The niche strengths of UNI programs have allowed the University to focus its efforts in the areas of: community and economic development; market research; environmental research and service; metal casting; biobased lubricants; executive development; new Iowans; and entrepreneurship. Housed within the University's Business and Community Services (BCS) division, the University offers a variety of programs that emphasize hands-on assistance to meet the needs of both business and community clients. BCS employees are literally at the front door of clients across the state; utilizing the resources of the University community to address the needs of those they serve. During FY 2007, BCS programs:

- Provided service in all 99 counties to more than 2,880 business and community clients
- Involved 195 faculty members and 2,890 students in delivery of these services
- Leveraged each $1 invested by the state with $6 in federal or private support

Entrepreneurship, Business Incubation and Technology Transfer

Overall UNI's three incubator/accelerator programs and MyEntreNet helped start or expand 73 ventures, which have created more than 233 jobs. An additional 1,300 small businesses received counseling and training through the Small Business Development Center and John Pappajohn Entrepreneurial Center. In addition, six student entrepreneurs were tenants in the John Pappajohn Entrepreneurial Center's new Student Business Incubator this year and two launched a business in the Iowa economy. This year, UNI also initiated a statewide rollout of the MyEntreNet rural entrepreneurship program, as well as the launch of an urban MyEntreNet program in Northeast Waterloo. MyEntreNet now boasts more than 1,400 registered entrepreneurs and small business owners.

Technology Transfer and Research Projects

Technology transfer efforts were enhanced during FY 2007 with 26 new disclosures received, four new patents filed, seven patents received and two new license agreements negotiated. Thirteen research projects with substantial commercial potential were completed or launched with support from the GIVF and Battelle funds. All but one of the GIVF research projects have submitted disclosures and two of the early-stage Battelle research projects have already submitted disclosures.

Local Economic Development

Since its inception, the Institute for Decision Making (IDM) has served more than one-half of the communities in Iowa. In the last year alone, IDM added 25 new community clients to its Community Partners Program and assisted eight regional economic development groups with planning, marketing and capacity building. Community economic development organizations report that 1,500-2,000 jobs per year are created as a result of IDM's technical assistance. In addition, the highly regarded Heartland Economic Development Course, a nationally accredited economic development course created and directed by IDM, achieved record enrollment with 77 participants.

Waste Reduction and Environmental Assistance
The Iowa Waste Reduction Center (IWRC) continued its commitment of assistance to the Iowa economy, by providing environmental technical assistance and on-site reviews to more than 245 small businesses in the past year. In FY 2007, the IWRC also developed and commercialized a virtual reality painting and blasting training system; subsequently training 120 military personnel through the STAR4D program. The Center for Energy and Environmental Education assisted more than 300 educational institutions, food vendors and farmers with energy efficiency and environmental assistance.

Market Research
Strategic Marketing Services (SMS) continues to be in high demand, assisting 17 business clients with 31 diverse projects during FY 2007. These clients report an average employment increase of 16%, due in part to the information provided by SMS. In addition, market research was provided to six technology transfer projects at UNI.

Metal Casting/Foundry Assistance
UNI's Metal Casting Center (MCC) provided technical assistance to 24 foundries during FY 2007. In addition, the MCC conducted biobased binder research sponsored by the DOE, and also collaborated on a Department of Defense research project involving Iowa State University and the University of Iowa.

Biobased Lubricants
The National Ag-Based Lubricants (NABL) Center completed product enhancements to soy-based hydraulic fluid for the military, as well as to complex greases for industrial purposes. Laboratory enhancements were also made in order for NABL to better serve the biobased lubricants industry. NABL has developed more than 30 biobased lubricants for industrial uses.

Executive and Professional Development
In the past year, the Executive Development Center offered 75 professional development workshops to 917 business professionals from 78 separate businesses.

A complete listing of UNI economic development programs, including a summary of services and outcomes is included in Section 3.

Section 2. Technology Transfer and Intellectual Property

FY 2007

	UNI
a. Number of disclosures of intellectual property	26
b. Number of patent applications filed	4
c. Number of patents awarded	7
d. Number of license and option agreements executed on institutional intellectual property (both in Iowa)	2
e. Number of license and option agreements yielding income	11
f. Revenue to Iowa companies as a result of licensed technologies	$4,560,000
g. Number of start up companies formed, in total and in Iowa (incubators & *MyEntreNet*) – plus 22 expanded	51/51
h. Number of companies in research parks and incubators	15
i. Number of new companies in research parks and incubators	10
j. Number of employees in companies in research parks and incubators	39
k. Royalties/license fee income	$62,937
l. Total sponsored funding	$29,200,607
m. Corporate-sponsored funding for research and economic development and revenue generation (excludes corporate philanthropy all in Iowa)	$1,760,208
n. i. Annual appropriations for economic development ii. Grow Iowa values appropriation iii. Battelle appropriation	$361,291 $950,000 $3,180,000

Section 3. Overview of UNI's Economic Development Programs

In the past year, UNI's economic development programs have collectively served approximately 2,880 communities, businesses, entrepreneurs and organizations. Specific details and insight into the community and economic development activities taking place in UNI's various outreach programs are contained in the following five pages. The first three columns provide a brief overview of each program, including the services provided and the populations being served. The fourth column highlights specific outcomes for each program during FY 2007, with the fifth column illustrating cumulative results achieved since the program's inception. This table provides a clear expression of the diverse and manifold benefits that UNI's economic development programs have brought to the State's economy.

Section 3. Overview of UNI's Economic Development Programs (continued)

Programs	Services	Those Typically Served	FY 2007 Results	Cumulative Results
National Ag-Based Lubricants (NABL) Center *Formerly ABIL*	Biobased lubricants research, testing services, performance standards and certification	Serving companies and individuals developing or using biobased lubricants	✓ Increased laboratory resources to better serve biolubricants users and industry. ✓ Developed soy-based complex grease targeting NLGI GC-LB certification. ✓ Developed soy-based hydraulic fluid targeting military cold-temp specifications. ✓ Completed fuel savings study for non-lubricated railroad tracks vs. lubricated.	✓ Over 30 soy lubricants, greases, metalworking fluids and specialty products developed to date. ✓ Forming a national testing and certification center to become the national leader in biobased lubricants.
Institute for Decision Making (IDM)	Hands-on community and economic development guidance and research	Serving economic development organizations, chambers, communities and others	✓ Hands-on community and economic development assistance and research provided to 47 community partners and 9 regional development groups. ✓ 6 economic impact and 4 Targeting Cluster Analyses were completed this year.	✓ Served 483 communities, counties and groups in nearly all of Iowa's counties to date. ✓ Community clients report 1,500 – 2,000 new jobs annually as a result of IDM assistance.
Iowa Waste Reduction Center (IWRC)	Free, confidential, non-regulatory environmental assistance for small businesses	Serving small businesses throughout Iowa	✓ Environmental technical assistance and on-site reviews were provided to 245 small businesses. ✓ Approximately 120 military personnel received training at the STAR4D facility.	✓ Provided 3,831 on-site reviews to Iowa small businesses.

Programs	Services	Those Typically Served	FY 2007 Results	Cumulative Results
John Pappajohn Entrepreneurial Center (JPEC)	Research, education and linkage to seed and venture capital resources	Serving student and faculty entrepreneurs at UNI, new ventures and rapidly growing small companies	✓ Two UNI student businesses were winners in the statewide business plan competition. ✓ 1,412 businesses and individuals participated in JPEC programs. ✓ Eight UNI students were selected to participate in the second Okoboji Entrepreneurial Institute. ✓ Six student-businesses were provided space and services in the new Student Business Incubator in May and June.	✓ The new Student Business Incubator (permanent facility) launched two new businesses into the Iowa economy on June 1 -- La Prensa Hispanic Newspaper (the largest Hispanic newspaper in Western Iowa) and CAAL Translations.
UNI Regional Business Center/ Small Business Development Center (RBC/SBDC)	Rural Entrepreneurship development system, online entrepreneurship resources, business consulting, business training, incubator	Small and medium sized business, entrepreneurs, service providers to entrepreneurs	✓ Rural Entrepreneurship Development System (MyEntreNet) launched in Union and Jasper Counties. ✓ 1,098 community leaders/ entrepreneurs served with localized training or technical assistance in 25 Iowa counties. ✓ 378 entrepreneurs from 25 counties served with 1:1 technical assistance.	✓ MyEntreNet system is active in 12 Iowa counties. 1 in 5 participating entrepreneurs start or expand Iowa companies. ✓ 1,407 Iowa entrepreneurs registered in online community. ✓ RBC incubator has graduated 33 companies, creating 56 new FTE jobs, $1.98 million in investment in Waterloo central business district.

Programs	Services	Those Typically Served	FY 2007 Results	Cumulative Results
Iowa Center for Immigrant Leadership and Integration (ICILI)	Helping Iowa communities and businesses accommodate the needs of newcomers	Serving communities, faith-based organizations and businesses	✓ Jointly created a new manual for immigrant entrepreneurship in Iowa. ✓ Worked with 20 companies and communities to better meet the needs of newcomers.	✓ Assistance in accommodating the needs of newcomers has been provided to more than 100 Iowa companies. ✓ More than 20,000 copies of four different guides/manuals (and untold electronic copies) have been distributed throughout Iowa.
Tallgrass Prairie Center (TPC)	Research, techniques, education and source-identified seed for restoration and preservation of native vegetation	Serving Iowa counties, state and federal agencies, commercial native seed producers, the community, educators, students and others	✓ Roadside vegetation research for restoring right-of-ways was provided to the Iowa Department of Transportation and native seeds distributed to 50 counties in Iowa. ✓ Initiated applied research project to determine prairie species mix for optimal biomass for electrical generation.	✓ More than 12,000 acres of roadway right-of-way have been restored to native vegetation.

Programs	Services	Those Typically Served	FY 2007 Results	Cumulative Results
Center for Energy and Environmental Education (CEEE)	Innovative educational and technical advice related to energy, environment and community-based agriculture	Serving Iowa classrooms, teachers, farmers, businesses, state agencies and citizens	✓ Energy efficiency, environmental education assistance, and local economic development assistance was provided to 298 educational institutions, farmers, and food vendors in 125 different communities and 63 counties. ✓ Education programs reached10,330 K-12 students, and 1,067 K-12 teachers ✓ Participating farmers in Buy Local/Buy Fresh program earned $881,000.	✓ Since 1998, energy and environmental education programs in 72 counties have reached over 70,000 K-12 students, and 3,580 K-12 teachers. ✓ Since 1998, Buy Fresh/Buy Local program has facilitated purchase of $3,626,000 worth of meat and produce from hundreds of area farmers by food vending institutions.
Executive Development Center (EDC)	Management and professional training workshops and certificate programs	Serving Iowa businesses and organizations	✓ Specialized business management training provided in 75 workshops to 914 business professionals in 78 businesses during the past year.	✓ Since 1998, the EDC has provided training in 1,054 workshops to 18,169 business professionals.
Recycling and Reuse Technology Transfer Center (RRTTC)	Recycling and by-products research, education and outreach	Serving Iowa businesses the recycling industry and Iowa citizens.	✓ Research project funding and outreach services related to recycling and reuse were provided to 40 companies and organizations.	✓ Over 37 RRTTC funded research projects. Over 170 reports and publications available. ✓ Outreach and services provided to more than 5,200 individuals this year, including business/industry, K-12 students and teachers, and Iowa citizens.

Programs	Services	Those Typically Served	FY 2007 Results	Cumulative Results
Metal Castings Center (MCC) and Center for Advanced Biobased Foundry Binders (CABB)	Metal casting technologies, applied research, testing and training	Serving Iowa casting users, foundries and foundry suppliers	✓ Maintained active contracts with 24 companies, provided outreach projects to 2 Iowa foundries and technical assistance to 30 additional foundries. ✓ Conducted DOE sponsored research into bio-based foundry binders. ✓ Conducted Battelle sponsored commercialization of Bio-based foundry binders ✓ Collaborated with University of Iowa and Iowa State on DOD sponsored research.	✓ Over 50 industry funded research projects have been completed to date.
Strategic Marketing Services (SMS)	Market research and analysis	Serving businesses, entrepreneurs and non-profit organizations	✓ Market research and analysis services were provided to 17 Iowa companies.	✓ Since 1990, market research and analysis services have been provided to 259 Iowa companies.
Sustainable Tourism and Environment Program (STEP)	Sustainable tourism planning and policy assistance	Serving businesses, government and non-government organizations, and special interest and community groups	✓ Tourism training and technical assistance was provided to 5 county tourism groups and 1 multi-county regional sustainable tourism project.	✓ Market research feasibility and economic impact studies have been provided to more than 40 counties or communities.
Materials Innovation Service (MIS)	Mechanical, physical and chemical tests of metals, polymers and cementitious materials	Serving Iowa manufacturers and suppliers	✓ Technical assistance provided to more than 160 individuals and testing contracts from five companies.	✓ Technical assistance or testing provided to approximately 160 individuals this year. Over 1,870 hours of testing provided since the beginning of the program.

Programs	Services	Those Typically Served	FY 2007 Results	Cumulative Results
Geoinformatics Training, Research, Education and Extension Center (GeoTREE)	Geospatial technologies, education, research, and outreach activities for federal, state, local and tribal agencies	Serving federal, state, local and tribal (FSLT) government agencies (NASA)	✓ 4 educational workshops held at UNI in new computer teaching lab with more than 88 people in attendance. ✓ Worked in conjunction with DNR and Public Health to apply geospatial data to solve problems.	✓ GeoTREE has provided 9 training and educational workshops for about 210 federal, state, local and tribal government staff members.

Section 4. Grow Iowa Values Fund Projects

Overview: Pursuant to its FY 2007 Grow Iowa Values Fund proposal, the University of Northern Iowa used its expertise to expand and stimulate economic growth across the state in these areas:

- Technology Transfer and Business Incubation
- Rural Entrepreneurship
- Market Research
- Regional Development
- National Ag-Based Lubricants Center

GIVF Project 1: Technology Transfer and Business Incubation

Summary: By all accounts, FY 2007 has been a productive year for both technology transfer and business incubation efforts. The Technology Transfer team is creating a supportive community culture for entrepreneurial development on campus through a planned schedule of events and educational opportunities for students, faculty and staff in the coming year. The Student Business Incubator continues to be a popular resource for UNI students, and the Innovation Incubator is nearing full completion with two entrepreneurs taking early tenancy in the new facility. Additional late-stage researchers and spin-off companies from the Cedar Valley are scheduled to enroll in the incubator this fall, as construction is completed.

Primary Metrics: number of disclosures, patents and license agreements, new business starts, level of incubator tenancy and jobs created.

Outcomes and Accomplishments: The following are specific accomplishments and outcomes of Technology Transfer and Business Incubation projects:

Area 1: Technology Transfer
Highlights from the UNI Technology Transfer Team and staff include the following:

- 18 new disclosures from a variety of colleges across campus were accepted, from among the 26 that were submitted.
- Four of the five GIVF-funded, applied research projects submitted disclosures and two of the Battelle projects submitted disclosures.
- Four US patent applications were filed during the fiscal year, with three US patents and multiple foreign patents awarded to innovators across campus.
- Two new license agreements were secured.

Area 2: Business Incubation
Highlights from UNI's GIVF business incubation efforts include the following:

- Four students have started six early-stage companies in the new Student Business Incubator (located in the Business & Community Services Building).
- One student graduated from the Incubator, moving two companies to western Iowa.
- The John Pappajohn Entrepreneurial Center hired a new Program Associate in June to provide oversight for student incubator operations and serve student entrepreneurs with technical assistance and training.

- Two technology companies have become early tenants in the Innovation Incubator: an educational software development company serving the needs of public institutions; and a novel, three-dimensional prototyping company, offering competitively priced resin prototype services to mid-size manufacturing firms and inventors.
- A new partnership between the Technology Transfer Office, the Office of Sponsored Programs and the Price Laboratory School has created an Innovation Certification for Education program (ICE) to review and classroom-test new educational innovations which have the potential to improve educational software or web-based learning.
- The Regional Business Center incubator, located in downtown Waterloo, has graduated 33 businesses into the regional economy and remains full.

Matching Funds: Federal funds from the Department of Energy, Small Business Administration as well as program income.

GIVF Project 2: Rural Entrepreneurship

Summary: As of fiscal year end, twelve rural Iowa counties have launched MyEntreNet Rural Entrepreneurship Development Systems across the state. It was anticipated that MyEntreNet would serve 50 community leaders and 450 entrepreneurs (150 of them with advanced technical assistance or training) for a total of 500 rural participants during FY 2007. Those goals were exceeded across all segments, with over 900 community leaders and entrepreneurs receiving some kind of on-site technical assistance, training, mentoring or networking support during the past fiscal year, and a record 235 of these entrepreneurs receiving advanced technical assistance or training.

Primary Metrics: number of jobs created, new business starts and expansions, community leaders / entrepreneurs assisted, and leveraged investment.

Outcomes and Accomplishments during this project:

- Across all MyEntreNet regions, 167 new full time jobs were created by 45 new or expanding rural companies. An additional 32 jobs were saved by technical assistance provided to struggling companies in these regions.
- Of those entrepreneurs receiving advanced services, nearly 20% have opened or expanded a rural company in the past twelve months.

Rural Entrepreneurship Services	Community Leaders Served	Total Entrepreneurs Served	# of Entrepreneurs Receiving Advanced Services*	Total
Goals	**50**	**450**	**150**	**650**
Actual Outcome	**270**	**642****	**235**	**912**

* Entrepreneurs participating in Fast Trac®, MicroEnterprise Training or receiving >4 hours of 1:1 consulting.
** Some entrepreneurs attended more than one event

Year End Economic Impact	New/Expanded Businesses	Jobs Created	Businesses Saved	Jobs Saved	Commercial Investment
Goals	**30**	**70**	**5**	**30**	**$3M**
Actual Outcome	**45**	**167.5**	**4**	**32**	**$6,139,116**

January-June 2007 Rural Entrepreneurship Services	Community Leaders Served	Total Entrepreneurs Served**	# of Entrepreneurs Receiving Baseline Services*	Total
NE Iowa Counties	36	166	55	**202**
Carroll/Poweshiek Counties	33	47	0	**80**
Marion/ Decatur Counties	35	167	35	**202**
Jasper/ Union Counties	57	162	45	**219**
Total Served	**161**	**542**	**135**	**703**

* Entrepreneurs participating in Fast Trac®, MicroEnterprise Training or receiving >4 hours of 1:1 consulting
**Some entrepreneurs attended more than one event

Area 1: Technical assistance continues with the NE Iowa MyEntreNet six-county region and Carroll/Poweshiek Counties

The NE Iowa Business Network has assumed the lead for planning regional entrepreneurial support services, including educational offerings, counseling and networking for entrepreneurs throughout the six-county region. MyEntreNet staff continues to fill gaps in service delivery areas and provide training in entrepreneurial development strategies for community and professional leaders. We believe that the steady increase in locally-owned business starts and expansions, coupled with significant job creation in NE Iowa over the past four years, is a direct reflection of this comprehensive, partner-driven approach to entrepreneurial development.

Eighteen months into system launch, both Carroll and Poweshiek counties' MyEntreNet systems struggle to gain a foothold with local and regional development organizations. Work in these areas continues to be concentrated upon community empowerment; creating a supportive infrastructure for entrepreneurial development among the leadership and development staff in both counties. New partners, including ISU extension and the newly opened Ft. Dodge SBDC office are involved in discussions to improve the number and quality of services available to entrepreneurs in their region.

Area 2: The web resources of MyEntreNet will be made available to service providers and entrepreneurs at no charge through a statewide marketing campaign in 2006-07
As reported in January, a unique partnership was developed this past year with the statewide system of SBDC's, in order to merge their online presence with MyEntreNet's online community. However, the statewide marketing campaign has been moved back to FY 2008 in order to include the SBDC system. Thus, GIVF resources have primarily been spent to augment the array of online learning, networking and technical assistance tools available to entrepreneurs via MyEntreNet.

To date, more than 1,300 Iowa entrepreneurs have registered at www.myentre.net; 326 in the past six months alone. This represents nearly double the number of rural entrepreneurs registered online a year ago. This past year the customized features of MyEntreNet have been expanded into all 99 counties with nearly 100 professional Navigators trained to provide online, email counseling to rural Iowa entrepreneurs. Work has also been focused upon creating a regular set of online "webinars" on topics of interest to small businesses.

Area 3: Two additional counties in Iowa will launch MyEntreNet entrepreneurship development systems in the fall of 2006
Decatur and Marion counties, as reported in December, launched an aggressive array of activities and events for both community leaders and entrepreneurs this past fall, and continued their efforts during the spring of 2007. To date, 166 entrepreneurs received assistance and 35 community leaders were engaged in capacity building for entrepreneurial development in these new regions.

Area 4: Selection of two additional MyEntreNet regions in January of 2007
In response to continued demand for new regions, two additional counties were competitively selected by the MyEntreNet selection committee in January of 2007. From a pool of seven applicants, Union and Jasper counties were added, bringing the total number of MyEntreNet regions in rural Iowa to twelve. Listening Posts, Entrepreneurship Summits (Kickoffs) and Fast Trac® training were offered in the spring of 2007.

Matching Funds: Federal funds from the Small Business Administration, program income and community contributions to entrepreneurship.

GIVF Project 3: Market Research

Summary: Quality market intelligence can significantly increase a business's opportunity for success. The purpose of devoting GIVF funds to market research projects for start-up businesses, existing businesses and tourism/quality-of-life ventures, is to help expand and stimulate economic growth across Iowa by providing businesses with invaluable insight on their target markets. Strategic Marketing Services (SMS) has allocated GIVF support towards three primary areas: 1) Assistance to UNI's technology transfer program, 2) Market Research Projects, and 3) Market Research Plans and Assessments.

Primary Metrics: number of market research projects conducted, technology transfer projects assisted and moving forward, market research plans completed and percentage of increased jobs related to market research projects.

Outcomes and accomplishments during this project:

- Improved competitive intelligence for Iowa companies.
- Provided initial market screening and identified potential competitors for UNI faculty and staff research.
- Clients report an average employment increase of 16%, due in part to the research conducted by SMS.

Area 1: Assistance to UNI's Technology Transfer Program

SMS conducted six Phase One research projects for UNI Technology Transfer opportunities during FY 2007. GIVF funding supported 50% of these Phase One projects, with the UNI Research Foundation (UNIRF) contributing the other 50%.

Area 2: Market Research Projects

SMS has successfully completed five market research projects for Iowa-based businesses in FY 2007 with one still underway. Additionally, four other entities have expressed a sincere interest in utilizing SMS for market research, and are still under consideration. Costs for market research projects are split between the client and GIVF investment, with maximum GIVF support of $10,000 per project.

Projects Completed as of June 30, 2007

- Porta-Vet, Hudson
- UNI Metal Casting Center, Cedar Falls
- Technology Association of Iowa, Des Moines
- Development Resources of Iowa, Strawberry Point
- Plant Fiber Laminates, Cedar Falls

Projects Underway as of June 30, 2007

- Springboard Engineering, Newton

Projects Currently Under Consideration as of June 30, 2007

- ASI Modulex, Grinnell
- Northern Filter Media, Muscatine
- Heavy Equipment, Bellevue
- City of West Des Moines

Area 3: Market Research Plans and Assessments

SMS has also provided seven Iowa companies with Market Research Plans / Strategic Plans. These plans assess a company's current market situation and provide a plan of action, as well as associated costs. These projects utilize a GIVF investment, along with a match from either the client or SMS.

Market Research Plans/Assessments Completed as of June 30, 2007

- Soy Products, Montezuma
- Lansing Housing Products, Lansing
- Innovative Lighting, Roland
- Tiremort, Northern Iowa
- Keith Fettketter Heating/Air Conditioning
- McKee Button, Muscatine
- Far Reach Technologies, Cedar Falls

GIVF Project 4: Capacity Building to Help Regions Succeed

Summary: During FY 2007, the Institute for Decision Making (IDM) and local/regional economic development leaders built upon growing levels of trust and collaboration in order to strengthen

partnerships and build capacity at the local level, thus enhancing the regional product. Specifically, IDM has focused its efforts in six regions and across multiple development initiatives. Steps have also been taken to prepare these regions for operating independent of state marketing money.

Primary Metrics: number of leads generated by each region, investment leverage by region, development of regional metrics (regions assessing progress – such as job creation and businesses added) and testimonial letters from each of the regions assisted.

Outcomes and accomplishments during this project: IDM solicited reports from a cross section of economic development organizations (collaborative partners) involved in regions. Over the last year, each partner averaged three business leads attributable to regional activity, with each lead having a one in six chance of a follow-up business visit. In a typical region, the average investment by each collaborative partner organization was roughly $16,000 (53% monetary; 47% in-kind). Additionally, IDM has reviewed its partners' identification of regional metrics noting that *job creation* and *businesses added* were most often mentioned. Other highlights include two regions that developed concerted marketing and operating protocols and the receipt of testimonial letters from each region praising IDM's contributions.

Western Iowa Advantage Region (WIAD): Counties of Adair, Audubon, Carroll, Crawford, Greene, Guthrie, Sac, and Ida with Region XII Council of Governments serving as fiscal and administrative agent

- Completed regional economic development plan with priorities being: regional marketing, business retention and expansion, and entrepreneurial development.
- Increased economic developers' marketing capacity; helping them understand IDM's recommended targeted industries so they could formulate appropriate strategies.
- Updated Regional Economic Development plan; includes new strategies related to workforce development since the region received additional state funding for this.
- Assisted developers in exploring options for the establishment of a "shovel-ready site" designation for industrial sites in the region; provided useful information on what to consider.
- Provided feedback and technical assistance related to specific marketing strategies, such as approaches for a site-selector direct mail campaign.

<u>Ida County Economic Development Corporation (ICEDC) within this region:</u>

- Increased capacity of the ICEDC's newly formed volunteer-led organization to develop an operations plan with multi-year priorities.
- Provided technical assistance for implementation; increasing awareness about ICEDC in the county and region, thereby aiding its sustainability.
- Directly strengthened the ability of the WIAD to implement regional efforts since ICEDC is a volunteer-driven organization with no professional economic developer.
- Provided leadership through information and assistance, as needed.

<u>Midwest Partnership Corporation, counties of Adair, Green and Guthrie, within this WIAD region and also within the Southwest Iowa Marketing Coalition region:</u>

- Conducted two-day board planning session.
- Developed three-year business plan draft and conducted board review of plan to finalize.
- Mentored executive director to assist in developing implementation strategies and actions.

Northeast Iowa Business Network (NIBN): Counties of Allamakee, Chickasaw, Clayton, Delaware, Fayette, Howard, and Winneshiek

- Completed (in November) the *Research and Analysis for Regional Target Industries* for NIBN, which built upon the cluster analysis that Iowa Workforce Development completed in partnership with IDM.
- Increased marketing implementation capacity with ongoing technical assistance.
- Developed and provided company-specific contact information based on completed targeting study; approximately 3,000 provided in groups of 300-500.
- Implemented direct mail program and phone follow-up for each batch of targeted companies.
- Provided planning assistance/facilitation to develop annual business plan.
- Provided benchmarking assistance to identify impacts of regional efforts.
- Working to develop a searchable product data base to enhance local inter-regional business commerce.

Off-Shore Iowa: Communities of Oelwein, Osceola, Mt. Pleasant, and Harlan, which are located in the counties of Fayette, Clarke, Henry, and Shelby, respectively

- Expanded capacity through an RFP, resulting in the hiring of a marketing firm to develop promotional materials.
- Local matching dollars were received to trigger a $20,000 IDED marketing grant.
- Guided development of logo, website and direct mail marketing materials.
- Identified specific trade shows for Off-Shore Iowa to participate in as attendees, in order to judge the merits of future sponsorship.
- Developing a database of site consultants specializing in back office locations.
- Working with a design-to-build firm to develop spec building proposals for two communities.

South Central Iowa Partnership (SCIAP): Counties of Clarke, Decatur, Lucas, Madison, Union, and Wayne

Decatur County Development Corp (DCDC):

- Leveraged first year of a two-year USDA grant to build capacity and sustainability of DCDC.
- Coordinated grant activity with that of the UNI Regional Business Center's MyEntreNet program to increase the capacity of DCDC and the county in support of entrepreneurship; led the community empowerment portion of the MyEntreNet initiative.
- Assisted the board and staff to increase their capacity for economic development organizational planning with the creation and adoption of a practical five-year strategic plan.
- Introduced and began applying the Malcolm Baldridge Criteria for Performance Excellence to improve sustainable organizational processes.
- Provided useful targets with a Targeted Industry Analysis.
- Trained and facilitated DCDC in executing an existing business initiative, including the use of the Synchronist Business Information System®.

Union County Development Association (UCDA):

- Built capacity for entrepreneurship by leading the community empowerment portion of the MyEntreNet program.

North Central Iowa Region (North Central Iowa Growth Partnership Marketing Alliance)
Counties of Cerro Gordo, Floyd, Franklin, Hancock, Mitchell, Winnebago, and Worth

Hancock County Economic Development Corporation within this region

- Built capacity with the board and staff of this newly reorganized corporation through direct technical assistance.
- Identified consensus-based board roles and responsibilities.
- Determined policy related to expansion and recruitment of new businesses.
- Developed a strategic plan with implementation strategies.
- Coordinated marketing initiatives with the regional alliance.

Iowa Connections Counties of Benton, Jasper, Tama, and Poweshiek; the communities of Marshalltown and Newton; and the Region VI Regional Planning Commission

- Increased the region's capacity to market intelligently: completed *Comprehensive Analysis of Potential Target Industries* for the region, which identified recommended industry targets; the research portion was completed in partnership with IWD, who provided industry and labor data.

Matching Funds: program income, US Department of Agriculture, Heartland Economic Development Course and Northwest Area Foundation.

GIVF Project 5: National Ag-based Lubricants (NABL) Center

Summary: The NABL Center has been a leader in the development of Iowa's biobased products industry for over 15 years. As the price of gasoline continues to surpass three dollars per gallon and the cost of petroleum-based lubricant products increases proportionately, the significance of developing a profitable, diverse, and well-accepted biobased industry within the state of Iowa has become paramount to Iowa's economic growth. To provide support for the growth of the state's biobased products industry, the NABL Center has worked to expand its scope by:

- Offering fee-based biobased lubricant testing services to entrepreneurs and biobased lubricant manufacturers.
- Adding fee-based biofuels testing capabilities to serve the State's biodiesel and ethanol producers, and to provide quality assurance for biofuels consumers.
- Leveraging NABL scientists' 17 years of vegetable oil-based expertise to provide biodiesel and ethanol troubleshooting services for producers.
- Consulting with various biobased industry partners, in order to assist in product development projects.

Primary Metrics: number of fee-based tests provided for biobased products, number of new laboratory cells constructed, level of engine oil testing capability, development of biobased engine oil and ISO certification.

Area 1: Engage in cooperative research and development activities involving major lubricants and additive companies to pursue the development of biobased diesel engine oil
This is a multi-year project, with the following progress achieved in FY 2007:

- Project partners were identified and invited to join the NABL Center in this research. Negotiations were successful, and confidentiality agreements have been signed; participating partners include John Deere, DuPont and Iowa State University.
- A dedicated testing area for biobased engine oil research and equipment was identified within the NABL facility. Engine dynamometers and diesel engine emissions testing equipment for this project were researched and identified, and bids have been received for their purchase.
- NABL has initiated the process of protecting intellectual property rights for new technology resulting from this research. Ownership will be shared with research partners.

Area 2: Augment existing test capabilities to include the sequence of tests needed to pass the requirements of two-stroke engine oils

- NABL investigated the necessary engines, additional test equipment, and potential modifications to existing equipment that would be required in order to achieve NMMA certification for conducting product testing on two-stroke engine oils.
- A new two-stroke engine test stand was designed, parts and materials were acquired, and the test stand was fabricated by NABL staff.

Area 3: Continue to expand the provision of fee-based testing services

Progress to date: In the last year, NABL has continued to provide fee-based testing to various private entities. Roughly, 169 tests were performed at the request of outside firms. Staff anticipates that this volume will increase significantly in the upcoming months due to the finalization of NABL's ISO certification and concerted marketing efforts.

- NABL added four new laboratory modules or "test cells" to better accommodate the Center's equipment and research needs. Original laboratory space has been re-allocated to enable the Center's testing operations to be more streamlined and to facilitate optimal handling of fee-based testing requests.
- NABL completed the writing and development of an ISO 17025 Procedures Manual, Quality Manual and Standard Operating Procedures (SOPs). NABL staff reviewed and edited all ISO documents in preparation for both the internal and external reviews. It is anticipated that the external review will take place at the end of this summer, and subsequently, official ISO certification achieved.

Area 4: New Research to investigate critical questions associated with biolubricant products

- NABL has established a methodology for more effectively controlling the bacteria which degrades biobased metalworking fluids. This methodology is a vast improvement to current fluid management practices and has the potential to improve the lifespan (and therefore cost-effectiveness) of biobased metalworking fluids.
- Samples of used metalworking fluid have been taken from NABL's machining center and initially tested. NABL anticipates the continuation of this research by extracting additional samples from the machining centers within the Metal Casting Center on the UNI campus.

Matching Funds: federal funding from the Department of Energy and US Department of Agriculture and fee generation.

*****A complete accounting of all five UNI GIVF projects is included in the financial spreadsheet, a separate attachment.***

Section 5: Battelle Projects

Overview: The University of Northern Iowa was awarded $3.18 million to develop research capacity related to key economic development clusters identified in the Battelle Reports. UNI invested these funds in key research programs that have the greatest potential to contribute to economic development in the state of Iowa. By supporting a portfolio of near, mid and long-term projects, UNI seeks to expand a pipeline of research that will create opportunities for technology transfer in the coming years.

This past year, UNI accelerated the research agendas of 13 projects in biosciences, information solutions and advanced manufacturing. The Battelle funding will not only make it possible for new products developed at UNI to reach the market, but it has also provided enhanced research opportunities for graduate and undergraduate students, and will contribute to an advanced workforce.

The Battelle Report, *Iowa's Bioscience Pathway for Development*, outlined the following three actions for building research capacity at the Regents Universities in Iowa.

Battelle Area 1. Undertake key recruitment, capacity building, and required investments to ensure rapid progress in the Battelle platforms.

Summary: UNI has allocated $1 million in Battelle funds to provide salary support for faculty members engaged in research projects with the potential for commercialization.

Primary Metrics: New faculty supported, enhancement of research capacity in Battelle platforms

Outcomes: In 2006-7, faculty members received support to work on 12 projects. Seven of these projects were in the Biosciences. These funds supported 6 new faculty members whose primary research focused on creating new products related to the bioeconomy and advanced manufacturing. These funds were used to accelerate the establishment of their research programs of these key contributors to technology transfer. Funds were used to support new faculty on some of the research grants identified in Section 3, as well as for the following research:

- A "phase 2" orthotic insert for lower leg amputees.
- A patentable neural network-based and other data-mining algorithms for mining Enterprise Resource Planning (ERP) databases.
- The integration of UNI grapevine identification data with the international plant germplasm database.

Battelle Area 2. Invest in strategic technology development infrastructure to strengthen and accelerate the scientific and commercialization work of the core platforms.

Summary: UNI received $1.36 million to renovate and equip research laboratories used in the Battelle projects.

Primary Metrics: Research infrastructure enhancements to support Battelle platforms

Outcomes: Renovations are currently underway to a greenhouse laboratory and two chemistry laboratories to support research to discover genes for drought resistance in barley and fungus resistance in corn, to develop and test bio-based foundry binders, and to improve the prediction of protein structures. Over all construction progress is at 85% complete for the Physics contract and 92% for the McCollum/Greenhouse contract. $410,000 was invested this year to equip existing research laboratories involved in Battelle research grants outlined in Section 3.

Battelle Area 3. Institute a grant program to support research in the core platforms.

Summary: UNI held an internal competition to select applied research projects with the greatest potential for technology transfer and commercialization. With input from the Technology and Commercialization Resources Organization, 8 projects were funded. Eleven UNI undergraduate and 9 graduate students have participated in these research projects thus far.

Primary Metrics: Number of disclosures, number of patents, technology transfer

Outcomes: Within 24 months, some of the Battelle projects are expected to result in new products or services, such as corn-based biolubricants, a bio-based foundry binder, a software application for protein structure prediction, a commercial computing grid.

Bioeconomy

Ethanol & Biodiesel Byproducts as Base Oils for Biobased Industrial Lubricants. The intent of this research is to determine whether corn oil and glycerin, byproducts of ethanol and biodiesel production, respectively, have potential for use in the development of biolubricants. NABL secured 1:1 matching funds from the US Department of Energy to leverage the State's Battelle funding for this research. Tribological and performance testing were conducted to evaluate each of the samples collected within each category of byproduct, including byproduct corn oil, glycerin, and methyl esters. NABL scientists are currently investigating several interesting opportunities to use these biofuels byproducts in non-traditional biolubricant applications.

Development and Commercialization of a foundry Binder System Based on Polysaccharide bio-feed stock. The overarching goal of the UNI Metal Casting Center's research in foundry binder systems is to find bio-based substitutes for the current petroleum based binder systems that hold sand in the shape of a mold in which to cast molten metal. The specific binder system is the phenolic urethane system, which currently holds about 80% of the foundry binder market. This system is composed of three parts:

- Part I: the phenol-formaldehyde resin
- Part II: the isocyanate resin

- Part III: the tertiary amine catalyst, which could be in either gaseous or liquid form

Battelle research completed thus far indicates the best prospect for commercialization is a Part I replacement consisting of corn syrup with a solvent package involving an alcohol (such as methanol, ethanol, or isopropanol). Pullulan is being explored as an additive to improve reaction time, as are conventional adhesion promoters already used in the binder industry. Testing is underway to determine the optimum percentages of corn syrup, solvents, adhesion promoters, isocyanate resin, and catalyst. A provisional patent is currently in process for a biobased foundry binder from this research.

Biodefense and Biosecurity

Robotics-Deployed Detection of Biological Agents. Following reconsideration of the market potential, intellectual property value, prototype design and proof-of-concept constraints and following consultations with local engineers, Michael Walter altered his research focus to a more productive and profitable development of a sensor, rather than on narrow robotics deployment of the original proposal. More specifically, Walter is developing a prototype anthrax detection sensor based upon phage affinity reagent (PAR-), QCM based sensing capabilities. The prototype will be used to achieve proof of concept for the sensor with live anthrax agent (at approved BSL3 facilities).

Post Genomic Medicine

Commercialization of protein structure prediction technology. Alexsandar Poleksic and Mark Fienup proposed to develop novel and improved methods for computational protein structure determination from the sequence of amino acids, and commercialize a software package based on their innovations.

A database of protein models has been created and loaded with approximately 20,000 representative protein structures to serve as templates in the protein modeling process. They have performed the research necessary to identify a representative set of protein structures and are working on the development of JAVA routines for building the test set that will be used in the benchmark. Lastly, Fienup and Poleksic have also developed and are currently testing the first version of the protein structure prediction algorithm.

Advanced Food and Feed

Identifying drought tolerance genes in the reproductive structures of barley. Tilahun Abebe and colleagues plan to discover genes for drought tolerance in barley flowers that can be used to develop new Iowa crops resistant to drought in the sensitive reproductive stage. The project has two main objectives 1) determine gene expression at the transcription (mRNA) level in drought-stressed tissues using the Affymetrix Barley1 GeneChip, and 2) analyze gene expression in drought-stressed tissues at the proteome (protein) level using two-dimensional protein gel electrophoresis (2-D protein gel).

A postdoctoral research associate was hired to assist with this project. We have completed the growth of barley plants in a controlled environment chamber, exposed them to drought, collected tissues (husk, awn and seed) and extracted ribonucleic acid (RNA) from drought-stressed and non-stressed (control) tissues.

Faculty/Student Collaboration on Commercializable Research. Two UNI faculty proposed to work with students to discover plant genes that would be used to develop plant-made pharmaceuticals and fungus resistant crops.

The research team grew fungi free prairie plants to be exposed to *Fusarium verticillioides* to determine if any plants are resistant. Plants that were grown without fungal contamination were treated with a spore suspension of *Fusarium verticillioides* to determine if the plants would be infected and killed by the fungus. These experiments produced some very positive results. The presence of resistant individual plants has been observed in populations of seedlings from several plant species, notably Tall dropseed. Plates of Tall dropseed have shown a roughly 1% occurrence of plants that survive *F. verticillioides* infection while all other plants are killed. Researchers have observed individual plants that show resistance to the fungal infection in Big Bluestem and Little Bluestem. Presently we are in the process of cultivating these resistant plants in order to obtain a genetic line of these plants that show this resistance.

Since Tall dropseed has exhibited the most specific resistance to infection, cultivation of larger numbers of Tall dropseed plants were made to obtain large enough amount of resistant plant tissue for DNA extraction. These plants were then used for DNA extraction and the DNA was used as a template for the amplification of R type genes. We have isolated 8 DNA sequences that resemble fungal resistance genes present in other agronomic crops. A PCR reaction was completed on extracted DNA using primers for known resistance gene markers. This PCR product was inserted into plasmids and transformed into *E. coli.* The bacterial colonies with inserted genes were cultured. Plasmids were isolated and resistance gene fragments were cut back out to be used for gene sequencing. It is planned to repeat this process with other plant species once it is completed for Tall dropseed to find a larger number of possible resistance genes for *F. verticillioides*.

Information Solutions

Commercial Computing Grids. Paul Gray proposed to create a High Performance Computing grid to provide academia and industry with accessible, secure, and scalable computing infrastructure. This statewide resource will provide a computing fabric needed to support new economic development in financial services, engineering and biotechnology in Iowa.

The assembly and move of the High Performance Computing Grid to the TEAM data center was completed in February. A major connection was made with the Shodor Education Foundation and minor connections with the corporations Cisco and VIA. Robert Panoff from the Shodor Education Foundation, Durham N.C. has a working relationship with the National Science Foundation which can potentially be leveraged for this project. The role of Dr. Panoff will be to market the resources of the UNI Battelle cluster to institutions that are seeking to purchase clustering equipment within their own NSF grants, and work with these institutions to lower their infrastructural costs, time commitments, and administration overhead by contracting out the resources of the UNI Battelle cluster.

Earlham College, Richmond IN, is a full partner in these ongoing discussions. Clustering resources at Earlham and UNI are to be combined for fault tolerance and to extend the resource capabilities. The Shodor Education Foundation is expected to market the combined resources to academic institutions seeking NSF funding for research projects. Cisco Systems Inc. has donated equipment to expand our systems' networking infrastructure to include Infiniband. VIA Technologies Inc., has donated eight

mini-ITX (small form factor) low-power motherboards for the purpose of promoting clustering capabilities using the LittleFe environment.

Faculty/Student Collaboration on Commercializable Research. A faculty team proposed to work with students to develop a novel system for automatically reading utilities meters using wireless mesh networks. Automatic Meter Reading (AMR) is an electronics system that provides remote meter reading of usage rate of electricity, gas, water and other related information. The primary goal of this project was to build an IEEE 802.15.4-compliant wireless mesh network based AMR system that is more cost-efficient and able to implement real-time data collection. This utility data collection system will utilize the two-way communication between AMR nodes to forward the readings back to a collection center or AMR server and therefore minimize the use of other infrastructures.

Implementation of the module prototype is expected to be completed in the laboratory by the end of this year. At this point, researchers anticipate seeking external research grant funds from NSF and Department of Energy to support the early phase operations of the project for single site mesh network deployment.

Advanced Manufacturing

Commercialization of Leading Edge Paint Removal Technologies. The Iowa Waste Reduction Center (IWRC) staff have developed a VirtualBlast system based on their existing VirtualPaint™ virtual reality training tool. Research and development was completed on VirtualBlast this past year, disclosed, and patented. Licensing is in process.

An additional tool to aid in paint removal, a laser-guided depainting attachment (LaserBlast) was patented. Initial talks with Marco (of Davenport, IA) have taken place regarding integrating IWRC developed technologies into their product line. Preliminary market research has been initiated to determine the potential market segments and avenues to pursue to gain the most exposure of these developed technologies.

Faculty/Student Collaboration on Commercializable Research. Three faculty teams will work with students to enhance the properties of materials used for novel nanoscale devices and miniaturization of components; to prove the utility of a novel laser interferometer for non-contact measurement of nanoscale surface vibrations; and to compare the performance of bio-based with petroleum-based cutting fluids during machining.

<u>Novel nanoscale devices</u>
The three separate projects related to nanoscience research initiated during the past year include:

- Utilizing quantum dots for improving the efficiency of solar cells—Researchers hope to develop a solar cell prototype far more efficient than the present standard. The two materials were chosen for their ability to create multiple electrical carriers from a single photon of light. Collaboration has been developed with Dr. Vikram Dalal at Iowa State to assist with optical characterization and synthesis techniques.
- The study of transition metal dichalcogenide materials—these are layered materials which can reversibly incorporate organic molecules and metal ions. They have shown promise for many

applications, including ion storage for batteries, lubricants, sliding electrical contacts, nanoscale mass storage, atomic scale memory applications, and possible hydrogen storage devices. Researchers have been successful in creating both powder and single crystals of one such material, $TiSe_2$. They have also been successful in incorporating Mn ions into this system, for study of possible electro-magnetic properties. Initial results also indicate that gold may be incorporated into this material, a feat which has not yet been accomplished elsewhere. Initial studies using scanning tunneling microscopy indicate that the inter-layer coupling may be weaker in $TiSe_2$ than in any other studied dichalcogenide system. This may indicate that it has superior lubrication properties than the present standard, MoS_2.

- Using nanoscale films to reduce corrosion in metals—these films could be economically viable for use in situations where standard techniques can not be applied. Initial investigations used gold films of thickness no greater than 100 nm. The films were initially applied in vacuum with no post deposition heat treatment. Researchers then explored the oxidation process in 316 stainless steel both heated in air and exposed to saltwater (concentration similar to that in seawater) at elevated temperatures. This will be useful as a standard of comparison for future film studies. The research will continue by utilizing different films, introducing post vacuum heat treatments, and more easily corroded steels.

Performance of biobased versus petroleum based cutting fluids during machining

Literature review by all three faculty researchers has been completed. To fully assess the effectiveness of a cutting fluid, it is necessary to develop a mathematical model of the process taking all the aspects into consideration. Presently the researchers are developing that model.

The use of a novel miniature laser interferometer for two commercial applications

Researchers have demonstrated the ability to detect very minute vibrations of solid surfaces by laser interferometry. Specifically, they can detect, with no contact with the surface, the amplitude of vibrations to better than ±5 nanometer. Nanoscale detection of surface vibrations has possible applications in early detection of miniature cracks and other surface defects. A patent disclosure has been submitted to the UNI Intellectual Property Committee.

Researchers have also been able to excite and measure the resonance frequencies of a very small volume of fluid. The data yields the surface tension with no contact with the fluid. Our test measurements on pure water and a number of other fluids and mixtures are quite promising. A patent disclosure has been submitted to the UNI Intellectual Property Committee.

Section 6. Collaboration for Economic Development

IDM and the Iowa Valley Community College District Employer Survey

The Institute for Decision Making (IDM) has pursued a collaborative relationship with the Iowa Valley Community College District for the completion of an extensive survey involving potential new jobs in the district and identifying the specific technical needs of its future workforce. The goals of this project were to:

- ✓ Gather data on the number of potential new jobs, number of replacement workers needed, skills necessary for new jobs, and the skills preferred by major employers in the college district (a four county area)
- ✓ Identify industry-specific technical skills needed for workforce development within Iowa's targeted industry clusters
- ✓ Develop a survey tool/process that meets the Community College's need for planning future programs and funding future training efforts.
- ✓ Strengthen the Community College's business retention and recruitment efforts

Tallgrass Prairie Center and Iowa Department of Transportation (IDOT)
In cooperation with the Iowa DOT, the Tallgrass Prairie Center (TPC) reconstructed a 20-acre prairie in Plainfield Iowa (Bremer County). Once the prairie is fully established, the long-term effects of mowing, haying and burning on native plant composition will be monitored. An additional study being jointly pursued by the TPC and the Iowa DOT examines the effect of Canada Wild Rye on native plant establishment and growth, when seeded as a nurse crop in a reconstructed prairie.

Tallgrass Prairie Center and Cedar Falls Municipal Utilities
A cooperative joint project involving alternative energy production has been initiated between the TPC and Cedar Falls Municipal Utilities (CFU). The TPC is conducting an applied research and demonstration project to determine what mixture of prairie species will result in optimal production of biomass for electricity generation. The experimental biomass mixtures will be burned in a stocker furnace at CFU and monitored for their potential as an energy feedstock.

NABL and Iowa State University
The National Agriculture-Based Lubricants (NABL) Center's ongoing research partnership with researchers at Iowa State University continues to provide new opportunities in biobased product development. Among several collaborative projects, one in particular focuses on the creation of economically-viable methods to improve the oxidative stability of vegetable oils, thereby enabling their use as base oils in engine crankcase lubricants and other industrial lubricant applications. In addition to ISU and UNI, two major Iowa-based industry partners are contributing to the early stages of this major project.

IWRC and the Iowa Department of Natural Resources
The Iowa Waste Reduction Center (IWRC) worked in conjunction with the Iowa Department of Natural Resources and the Iowa Department of Economic Development to create a series of five C&D Workshops at five separate locations: Ankeny, Burlington, Council Bluffs, Mason City and Spencer. Workshop participation totaled 235 attendees and 86 speakers/staff. Forty-four (44) Real Estate Agents and Appraisers requested 8 Continuing Education Units as a result of this workshop, and 111 evaluation forms were received, comments/suggestions compiled and results shared with Business Assistance Partners.

CEEE Collaborates with Local Farmers and Food Vending Institutions
The CEEE program, Buy Fresh/Buy Local, facilitates food purchases among farmers and food vending institutions in 14 counties. In the academic year 2006-2007, institutions purchased $881,000 worth of food directly from farmers; an increase of $210,000 from the previous year. Restaurants, colleges, hospitals, retirement homes, and grocers were among the purchasers of meat and produce raised by

hundreds of area farmers. Since its inception in 1998, annual purchases in the Buy Fresh/Buy Local program have increased at an average of roughly 25% per year, with cumulative farmers' earnings totaling about $3,626,000.

Regents JPECs and Iowa Lakes Corridor Development Corporation
In the 2006/2007 academic year, the three Regent institutions' John Pappajohn Entrepreneurial Centers, in conjunction with the Iowa Lakes Corridor Development Corporation and the Iowa Department of Economic Development, developed an intensive, week-long entrepreneurial institute and simulation. This week-long simulation brought eight students from each of the Regent institutions together to the Okoboji Lakeside Lab for the advanced study of entrepreneurship. Activities included an entrepreneurial simulation; seminars with successful entrepreneurs, business leaders and community leaders; and networking to enhance the students' understanding of opportunities throughout the State. Each student received three hours of academic credit for his/her participation in the Okoboji Entrepreneurial Institute.

Metal Casting Center (MCC) Develops Foundry Binder Systems from Iowa Agricultural Products
Managed by the MCC, the Center for Advanced Biobased Binders (CABB) has been funded by the Department of Energy to research the development of new foundry binder systems utilizing renewable resources. Over 15 researchers have been working to develop new polymers based on bio-renewable materials. To date, the MCC and CABB have developed six new types of industrial sand binders and hope to license the technology to their industry partners. These binders have the potential to compete favorably with existing products, helping to reduce dependence on foreign oil and lessen environmental impact. The MCC is working with the University of Iowa and Penn State University on advanced computer simulations to predict air emissions based on binder components. These tools will help to determine the potential environmental effects of the new binder systems, as well as assisting researchers in the optimization of their experimental formulations. A related research project is examining the use of computer simulation to aid in heat-treat quenching operations.

Section 7: Emerging Trends and Observations

a. Emerging Trends in university economic development and technology transfer

Over the past decade, economic development in Iowa and across the country has dramatically and fundamentally changed. Globalization, technology and the decline of core industries, such as agriculture, natural-resource extraction and manufacturing, have led community and development leaders nationwide to seek new, innovative strategies in order to remain competitive. In Iowa, this effort has led to the development of programs focusing on renewable energy, biobased products and technology. In addition, substantial emphasis has been placed on entrepreneurship through the creation of new programs and support for business incubators and accelerators.

Business incubation has been an economic development strategy for the past three decades. However, technical services offered by incubators are recognized as being equally important to entrepreneurial success, as the space being provided to budding entrepreneurs. Leadership in business incubation, whether it be bricks and mortar or virtual incubation, has continually gravitated toward universities, and has subsequently resulted in the development of support systems and infrastructure to support emerging businesses. Activities within university-based incubators and research parks enables these institutions to not only reach out to the communities around them, but to also reach in and harness the knowledge of university faculty and staff to further benefit these growing businesses.

Student business incubation is a more recent trend and provides an opportunity for Iowa's college students to act on their entrepreneurial visions prior to graduation, and launch a new business. Iowa's Regent Universities are proud to boast some of the strongest and most successful student entrepreneur and business incubation programs in the nation.

New emphasis has been directed toward rural entrepreneurs; those who are geographically isolated from technical assistance and networks. UNI's MyEntreNet program has found a way to touch these individuals by providing a comprehensive rural entrepreneurship system, in which web-based programming connects entrepreneurs with community leaders, business resources and education. MyEntreNet also allows entrepreneurs to cultivate their business skills, locate resources within their communities and apply their efforts toward increased economic vitality for an entire region. Other entrepreneurial service providers are now working with MyEntreNet in order to create "the" statewide system for entrepreneurship.

Funding support for economic development and research programs has experienced some dramatic changes in the past two years. For decades, universities could count on federal funds to support early-stage economic development research projects. Many of these projects led to successful and self-sufficient programs that have fostered growth in the national economy. However, Congressionally-directed funding was eliminated in the 2008 federal budget, leaving many important programs in limbo. Even if Congressionally-directed funding returns in 2009, it is expected that the number of programs supported will be substantially reduced.

Another trend in economic development and technology transfer has been the expansion of partnerships. Many universities are now working more closely than ever to leverage their unique intellectual strengths and to collaborate on research and economic development projects. Partnerships and collaborative

projects are being pursued across academic disciplines and between universities, thus creating more comprehensive outcomes than could be achieved by any partner operating independently.

b. Availability of start-up capital and venture capital for technology entrepreneurs.

Two primary funding gaps exist for new ventures in Iowa. First, acquiring early stage, seed capital for prototype development or proof of concept is a major challenge for many entrepreneurs. This is primarily due to the fact that most angel and venture capital in Iowa is available only to companies that have existing sales, a solid management team, equity from the entrepreneur, and an exit strategy for investors. Thus, many potential ventures must turn to other sources of capital in order to launch their company and achieve sales.

Second, there is a significant gap in new venture funding in Iowa – somewhere in the range of $25 million to $50 million and beyond. Larger projects are generally forced to seek capital from established venture funds located on either the east or west coast. However, a few new Midwest funds have been established in the past few years and others are in the process of creation. These funds have helped to somewhat close the larger deal funding gap, although the biggest deals still seek funding from a small group of major venture capital firms. For example, medical technology and drug discovery are two categories of projects requiring substantial venture capital and therefore beyond the capacity of Midwest investors.

It is important to note that most high-quality projects in Iowa can obtain sufficient funding to be successful. The angel networks in Iowa are linked, communicate regularly, and frequently work together to syndicate deals for achieving substantial investment while spreading risk among funds. The venture capital sector in Iowa is still maturing and will become more efficient as deal quality and flow improve.

c. New programs to enhance the impact of technology transfer and service on the creation of jobs and wealth in Iowa.

UNI is not proposing any new economic development or technology transfer programs. Rather, the restoration of base state funding to UNI's economic development programs is an institutional priority that will have an immediate and long-term impact on Iowa's economy. For example, restoring funding to the Institute for Decision Making (IDM) will result in enhanced economic activity at the local and regional level, as IDM is able to provide more rural communities across the state with economic development technical assistance. IDM has its core infrastructure in place and maintains strong relationships with economic development entities throughout Iowa, thereby creating extremely efficient mechanisms for the delivery of economic development services. Professional Developers of Iowa echo this faith in IDM's ability to build the state's capacity for economic growth, having made restored funding for IDM one of the organization's top Legislative priorities for the past five years. Similarly, restored funding is being pursued for UNI's Metal Casting Center, with an emphasis toward the Center's biobased binder project.

Battelle funding is another example of a short-term, state-supported program that, with restored funding, will enable UNI to significantly enhance its long-term applied research and technology transfer capability. Battelle funds were appropriated for only one year, but in that year, UNI strengthened its

applied research infrastructure in key and diverse areas, such as advanced manufacturing, crop plant genetics, biobased foundry products, biosecurity, distributed financial information and computational systems, physical rehabilitation devices and therapies, and geoinformatics. Commercializable inventions in all of these areas are currently being developed by UNI faculty and staff, with Iowa-based commercial partners engaged in each project. Patent applications are being prepared for several of these innovative technologies, with more to follow throughout the next several months

In addition, the Battelle funding for UNI, though modest by traditional standards, has stimulated considerable interest by researchers throughout the university. Resuming Battelle-type funding would have a tremendous impact on UNI's applied research efforts; allowing for important new areas of exploration and commercial opportunity.

Section 8: Client and Project Summary

See attached spreadsheet of UNI's client and project summary for 2007

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Key to Acronyms

CEEE - Center for Energy and Environemtnal Education
EDC - Executive Development Center
GeoTREE - GeoInformatics Training, Research, Education,
ICILI - Iowa Center for Immigrant Leadership and
IDM - Institute for Decision Making
IWRC - Iowa Waste Reduction Center
JPEC - John Pappajohn Entrepreneurial Center
MCC - Metal Casting Center
NABL - National Ag-Based Industrial Lubricants
RBC/SBDC - Regional Business Center/Small Business Development Center
RRTTC - Recycling and Reuse Technology Transfer Center
MIS - Materials Innovation Services
SMS - Strategic Marketing Services
STEP - Sustainable Tourism and the Environment Program
TPC - Tallgrass Prairie Center
IRVM - Integrated Roadside Vegetation Management

Community or Business	County	State	Industry	Counseling Provided	Program
Sunflower Fields - Postville	Allamakee	IA	Farm Shares	Buy Fresh/Buy Local Campaign	CEEE
Audubon School - Audubon	Audubon	IA	Elementary School	Energy Education	CEEE
AnnaBeth's Gardens - Garrison	Benton	IA	Fruits & Vegetables & Garden Center	Buy Fresh/Buy Local Campaign	CEEE
Applecart Orchard - Vinton	Benton	IA	Fruits & Vegetables & Garden Center	Buy Fresh/Buy Local Campaign	CEEE
Belle Plaine	Benton	IA	Farmers Market	Buy Fresh/Buy Local Campaign	CEEE
Cedar Valley Farm - Vinton	Benton	IA	Egg & Poultry Producers, Meat Prod	Buy Fresh/Buy Local Campaign	CEEE
Fred's Strawberry Acres - Shellsburg	Benton	IA	Fruits & Vegetables, Garden Centers	Buy Fresh/Buy Local Campaign	CEEE
Little Red Barn - Vinton	Benton	IA	Fruits & Vegetables, Egg & Poultry Prod	Buy Fresh/Buy Local Campaign	CEEE
Pheasant Run Farm	Benton	IA	Fruits & Vegetables, Egg & Poultry Prod	Buy Fresh/Buy Local Campaign	CEEE
Vinton	Benton	IA	Farmers Market	Buy Fresh/Buy Local Campaign	CEEE
Youngville Café	Benton	IA	Farmers Market	Buy Fresh/Buy Local Campaign	CEEE
Vinton-Shellsburg	Benton	IA	K-12	Environmental Issues Instruction	CEEE
Conservation Board	Benton	IA	Conservation Education	Content knowledge re: waste	CEEE
Vinton-Shellsburg Schools	Benton	IA	Elementary School	Content knowledge re: waste	CEEE
Vinton-Shellsburg Schools	Benton	IA	Middle School	Content knowledge re: waste & service	CEEE
Friends of Hartman	Black Hawk	IA	non-gov't, non-profit conservation org	Ass't on grant project requirements, etc.	CEEE
Allen Memorial Hospital - Waterloo	Black Hawk	IA	Health Care	Buy Fresh/Buy Local Campaign	CEEE
Barn Happy - Cedar Falls	Black Hawk	IA	Grocers	Buy Fresh/Buy Local Campaign	CEEE
Beck's Sports Brewery - Waterloo	Black Hawk	IA	Restaurants	Buy Fresh/Buy Local Campaign	CEEE
Beck's Sports Grill - Cedar Falls	Black Hawk	IA	Restaurants	Buy Fresh/Buy Local Campaign	CEEE
Bourbon Street - Cedar Falls	Black Hawk	IA	Restaurants	Buy Fresh/Buy Local Campaign	CEEE
Cedar Falls	Black Hawk	IA	Farmers Market	Buy Fresh/Buy Local Campaign	CEEE
Cedar Falls Lutheran Home - Cedar Falls	Black Hawk	IA	Senior Citizens Home	Buy Fresh/Buy Local Campaign	CEEE
Cedar Heights ES - Cedar Falls	Black Hawk	IA	Elementary School	Energy Education	CEEE
Cedar Valley Farmers Market - Waterloo	Black Hawk	IA	Farmers Market	Buy Fresh/Buy Local Campaign	CEEE
Central Echoes Class - Waterloo	Black Hawk	IA	Middle School	Energy Education	CEEE
CFU Energy Fair - Cedar Falls	Black Hawk	IA	Utility	Energy Education	CEEE
Cup of Joe - Cedar Falls	Black Hawk	IA	Restaurants	Buy Fresh/Buy Local Campaign	CEEE
Evansdale	Black Hawk	IA	Farmers Market	Buy Fresh/Buy Local Campaign	CEEE
Ferrari's Ristorante - Cedar Falls	Black Hawk	IA	Restaurants	Buy Fresh/Buy Local Campaign	CEEE

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
Friendship Village - Waterloo	Black Hawk	IA	Health Care	Buy Fresh/Buy Local Campaign	CEEE
Gary Tedore Orchard - LaPorte City	Black Hawk	IA	Fruits & Vegetables	Buy Fresh/Buy Local Campaign	CEEE
Hansen ES - Cedar Falls	Black Hawk	IA	Elementary School	Energy Education	CEEE
Hansen's Farm Fresh Dairy - Hudson	Black Hawk	IA	Dairy Producers	Buy Fresh/Buy Local Campaign	CEEE
Hoffman Produce - Waterloo	Black Hawk	IA	Fruits & Vegetables	Buy Fresh/Buy Local Campaign	CEEE
Holmes MS - Cedar Falls	Black Hawk	IA	Middle School	Energy Education	CEEE
Hometown Foods - Waterloo	Black Hawk	IA	Grocers	Buy Fresh/Buy Local Campaign	CEEE
Hoover Echoes Class - Waterloo	Black Hawk	IA	Middle School	Energy Education	CEEE
Hy - Vee - Waterloo	Black Hawk	IA	Grocers	Buy Fresh/Buy Local Campaign	CEEE
IC-St Joseph - Gilbertville	Black Hawk	IA	Elementary School	Solar Energy Education	CEEE
Jefferson Greenhouse & Orchard - Dunkerton	Black Hawk	IA	Fruits & Vegetables	Buy Fresh/Buy Local Campaign	CEEE
Kiwanis Presentation - Cedar Falls	Black Hawk	IA	Nonprofit Org.	Energy Education	CEEE
La Porte City	Black Hawk	IA	Farmers Market	Buy Fresh/Buy Local Campaign	CEEE
Learning after 50 - Hawkeye Community College, Waterloo	Black Hawk	IA	Community College	Energy Education	CEEE
Lincoln ES - Cedar Falls	Black Hawk	IA	Elementary School	Energy Education	CEEE
Logan ECHOES - Waterloo	Black Hawk	IA	Elementary School	Energy Education	CEEE
Logan MS - Waterloo	Black Hawk	IA	Middle School	Solar Energy Education	CEEE
Mooroo Waterloo	Black Hawk	IA	Restaurants	Buy Fresh/Buy Local Campaign	CEEE
Orchard Hill ES - Cedar Falls	Black Hawk	IA	Elementary School	Energy Education	CEEE
Pablo’s Mexican Café - Cedar Falls	Black Hawk	IA	Restaurants	Buy Fresh/Buy Local Campaign	CEEE
Price Lab School - Cedar Falls	Black Hawk	IA	Elementary School	Energy Education	CEEE
Price Lab School - Cedar Falls	Black Hawk	IA	Middle School	Solar Energy Education	CEEE
Root’s Market - Cedar Falls	Black Hawk	IA	Grocers	Buy Fresh/Buy Local Campaign	CEEE
Rose Hill Farm - Hudson	Black Hawk	IA	Fruits & Vegetables, Garden Centers	Buy Fresh/Buy Local Campaign	CEEE
Rudy's Tacos - Waterloo	Black Hawk	IA	Restaurants	Buy Fresh/Buy Local Campaign	CEEE
Sash’s Garden Varieties - Cedar Falls	Black Hawk	IA	Fruits & Vegetables	Buy Fresh/Buy Local Campaign	CEEE
Soho Sushi Bar & Deli - Cedar Falls	Black Hawk	IA	Restaurants	Buy Fresh/Buy Local Campaign	CEEE
Southdale ES - Waterloo	Black Hawk	IA	Elementary School	Energy Education	CEEE
Steamboat Gardens - Waterloo	Black Hawk	IA	Restaurants	Buy Fresh/Buy Local Campaign	CEEE
St Patrick's School - Cedar Falls	Black Hawk	IA	Elementary School	Energy Education	CEEE
Sunnyside Country Club - Waterloo	Black Hawk	IA	Restaurants	Buy Fresh/Buy Local Campaign	CEEE
UNI Dining Services - Cedar Falls	Black Hawk	IA	University	Buy Fresh/Buy Local Campaign	CEEE
Waterloo	Black Hawk	IA	Farmers Market	Buy Fresh/Buy Local Campaign	CEEE
Western Home - Cedar Falls	Black Hawk	IA	Health Care	Buy Fresh/Buy Local Campaign	CEEE
Cedar Falls Community Schools	Black Hawk	IA	Middle School	Content knowledge re: waste	CEEE
University of Northern Iowa - Cedar Falls	Black Hawk	IA	University	Techical Education/Nanotechnology	CEEE
University of Northern Iowa - Cedar Falls	Black Hawk	IA	University	Techical Education/Sustainability	CEEE

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
Columbus High School - Waterloo	Black Hawk	IA	High School	Technical Education/Energy Efficiency	CEEE
Recycling, & Reuse Technology Transfer Center - Cedar Falls	Black Hawk	IA	Technology Outreach Center	Technical Education/Nanotechnolgy	CEEE
Walnut Ridge Baptist - Cedar Falls	Black Hawk	IA	Elementary School	Energy Education	CEEE
Boone MS - Boone	Boone	IA	Middle School	Environmental Issues Instruction	CEEE
Howe ES - Boone	Boone	IA	Elementary School	Energy Education	CEEE
Ogden Municipal - Ogden	Boone	IA	Utility	Energy Education	CEEE
United Community ES - Boone	Boone	IA	Elementary School	Environmental Issues Instruction	CEEE
Bartels Lutheran Home - Waverly	Bremer	IA	Health Care	Buy Fresh/Buy Local Campaign	CEEE
Bremer County Field Days	Bremer	IA	County Conservation	Energy Education	CEEE
Clausing Cattle Co. - Waverly	Bremer	IA	Meat Producers	Buy Fresh/Buy Local Campaign	CEEE
Genuine Faux Farm - Tripoli	Bremer	IA	Fruits & Vegetables	Buy Fresh/Buy Local Campaign	CEEE
Lions Club - Janesville	Bremer	IA	Service Organizatin	Technical Education/Ethanol Fuels	CEEE
Pablo's Mexican Café - Waverly	Bremer	IA	Restaurants	Buy Fresh/Buy Local Campaign	CEEE
Real World	Bremer	IA	Nonprofit Org.	Electric Vehicle Education	CEEE
Roth Family Farm & Gardens - Janesville	Bremer	IA	Fruits & Vegetables	Buy Fresh/Buy Local Campaign	CEEE
Tripoli	Bremer	IA	Farmers Market	Buy Fresh/Buy Local Campaign	CEEE
Washington Irving ES - Waverly	Bremer	IA	Elementary School	Energy Education	CEEE
Washington Irving ES - Waverly	Bremer	IA	Elementary School	Solar Energy Education	CEEE
Waverly	Bremer	IA	Farmers Market	Buy Fresh/Buy Local Campaign	CEEE
Waverly Festival on the Green	Bremer	IA	Utility	Energy Education	CEEE
Waverly Health Center - Waverly	Bremer	IA	Hospital	Buy Fresh/Buy Local Campaign	CEEE
Waverly Light & Power - Waverly	Bremer	IA	Utility	Energy Education	CEEE
Waverly-Shellrock ES - Waverly	Bremer	IA	Elementary School	Energy Education	CEEE
Waverly-Shellrock MS - Waverly	Bremer	IA	Middle School	Solar Energy Education	CEEE
Bagge Strawberries - Independence	Buchanan	IA	Fruits & Vegetables	Buy Fresh/Buy Local Campaign	CEEE
Buchanan County Field Days	Buchanan	IA	County Conservation	Energy Education	CEEE
Clampitt Beef - Independence	Buchanan	IA	Meat Producers	Buy Fresh/Buy Local Campaign	CEEE
Independence	Buchanan	IA	Farmers Market	Buy Fresh/Buy Local Campaign	CEEE
Independence MS - Independence	Buchanan	IA	Middle School	Solar Energy Education	CEEE
Independence Light & Power - Independence	Buchanan	IA	Utility	Energy Education	CEEE
Jennifer & Lonnie Brewer -Hazelton	Buchanan	IA	Fruits & Vegetables	Buy Fresh/Buy Local Campaign	CEEE
Jessup	Buchanan	IA	Farmers Market	Buy Fresh/Buy Local Campaign	CEEE
West Elementary - Independence	Buchanan	IA	Elementary School	Environmental Issues Instruction	CEEE
Aplington-Parkersburg Schools - Parkersburg	Butler	IA	Elementary/Middle School	Prairie tour	CEEE
Daley's Shamrock Acres - New Hartford	Butler	IA	Egg & Poultry Producers, Meat Producers	Buy Fresh/Buy Local Campaign	CEEE

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
Dean's Grocery & Natural Foods - Aplington	Butler	IA	Grocers	Buy Fresh/Buy Local Campaign	CEEE
Martzahn's Poultry Processing - Greene	Butler	IA	Meat Lockers	Buy Fresh/Buy Local Campaign	CEEE
Pleasant Valley Farm - Aplington	Butler	IA	Fruits & Vegetables, Egg & Poultry Prod	Buy Fresh/Buy Local Campaign	CEEE
Shell Rock Honey & Flowers - Shell Rock	Butler	IA	Garden Centers, Honey Farms	Buy Fresh/Buy Local Campaign	CEEE
Manson Northwest HS - Webster	Calhoun	IA	High School	Electric Vehicle Education	CEEE
Pomeroy HS - Palmer	Calhoun	IA	High School	Electric Vehicle Education	CEEE
Carroll Schools - Carroll	Carroll	IA	K-12	Environmental Issues Instruction	CEEE
Fairview -Carroll	Carroll	IA	Elementary School	Energy Education	CEEE
Kuemper Catholic - Carroll	Carroll	IA	High School	Energy Education	CEEE
Kuemper Catholic - Carroll	Carroll	IA	High School	Environmental Issues Instruction	CEEE
Kuemper Catholic - Carroll	Carroll	IA	High School	Solar Energy Education	CEEE
CAM MS - Massena	Cass	IA	Middle School	Energy Education	CEEE
Scattergood - West Branch	Cedar	IA	Middle School	Solar Energy Education	CEEE
Clear Lake MS - Clear Lake	Cerro Gordo	IA	Middle School	Solar Energy Education	CEEE
North Iowa Area CC - Mason City	Cerro Gordo	IA	Community College	Electric Vehicle Education	CEEE
Aurelia Community School - Aurelia	Cherokee	IA	Middle School	Solar Energy Education	CEEE
Cherokee MS - Cherokee	Cherokee	IA	Middle School	Solar Energy Education	CEEE
Bloomin Wooley Acres Market Garden - Nashua	Chickasaw	IA	Farm Shares	Buy Fresh/Buy Local Campaign	CEEE
Burns Angus Farm - Lawler	Chickasaw	IA	Meat Producers	Buy Fresh/Buy Local Campaign	CEEE
Groothuis Farm -Nashua	Chickasaw	IA	Meat, Eggs & Poultry	Buy Fresh/Buy Local Campaign	CEEE
Clayton County Community Schools	Clayton	IA	Elementary/Middle School	Content knowledge re: waste	CEEE
MFL MarMac HS - Monona	Clayton	IA	High School	Electric Vehicle Education	CEEE
Adel MS - Adel	Dallas	IA	Middle School	Solar Energy Education	CEEE
Waukee HS - Waukee	Dallas	IA	High School	Electric Vehicle Education	CEEE
Davis County MS - Bloomfield	Davis	IA	Middle School	Energy Education	CEEE
Davis County Schools - Bloomfield	Davis	IA	Elementary School	Energy Education	CEEE
Eastern Iowa Reading Council	Delaware	IA	Schools	Intro to Select Environmental Books	CEEE
Independence MS - Independence	Delaware	IA	Middle School	Content knowledge re: waste	CEEE
St. Mary School - Manchester	Delaware	IA	Elementary School	Energy Education	CEEE
West Delaware Community Schools - Manchester	Delaware	IA	Middle/High School	Content knowledge re: waste	CEEE
West Delaware Community Schools - Manchester	Delaware	IA	Elementary School	Energy Education	CEEE
Burlington HS - Burlington	Des Moines	IA	High School	Environmental Issues Instruction	CEEE
Great River Christian - Burlington	Des Moines	IA	Elementary School	Energy Education	CEEE
Oak St. Middle School - Burlington	Des Moines	IA	Middle School	Environmental Issues Instruction	CEEE
Okoboji Reading Conference	Dickinson	IA	K-12	Intro to Select Environmental Books	CEEE

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
Spirit Lake MS - Spirit Lake	Dickinson	IA	Middle School	Solar Energy Education	CEEE
Beckman HS - Dyersville	Dubuque	IA	High School	Content knowledge re: waste & service	CEEE
Beckman HS - Dyersville	Dubuque	IA	High School	Environmental Issues Instruction	CEEE
Dubuque Catholic Schools - Dubuque	Dubuque	IA	Elementary School	Content knowledge re: waste & service	CEEE
Dubuque Community Schools - Dubuque	Dubuque	IA	Elementary School	Content knowledge re: waste	CEEE
Dubuque Hempstead High - Asbury	Dubuque	IA	High School	Environmental Issues Instruction	CEEE
Eleanor Roosevelt Middle School - Dubuque	Dubuque	IA	Middle School	Environmental Issues Instruction	CEEE
Hoover ES - Dubuque	Dubuque	IA	Elementary School	Energy Education	CEEE
Schaepe Homeschool	Dubuque	IA	Elementary School	Energy Education	CEEE
Iowa Lakes REC - Estherville	Emmet	IA	Utility	Energy Education	CEEE
Oelwein	Fayette	IA	Farmers Market	Buy Fresh/Buy Local Campaign	CEEE
Rawson Berries - West Union	Fayette	IA	Fruits & Vegetables	Buy Fresh/Buy Local Campaign	CEEE
Charles City	Fayette	IA	Farmers Market	Buy Fresh/Buy Local Campaign	CEEE
North Fayette Community Schools	Fayette	IA	Elementary School	Content knowledge re: waste	CEEE
Oelwein Middle School - Oelwein	Fayette	IA	Middle School	Environmental Issues Instruction	CEEE
Wings Park Elementary - Oelwein	Fayette	IA	Elementary School	Environmental Issues Instruction	CEEE
Lincoln Elementary - Charles City	Floyd	IA	Elementary School	Environmental Issues Instruction	CEEE
Charles City MS - Charles City	Floyd	IA	Middle School	Solar Energy Education	CEEE
Nora Springs MS - Nora Springs	Floyd	IA	Middle School	Solar Energy Education	CEEE
Homeschool	Franklin	IA	Elementary School	Energy Education	CEEE
Conrad	Grundy	IA	Farmers Market	Buy Fresh/Buy Local Campaign	CEEE
Grundy Center	Grundy	IA	Farmers Market	Buy Fresh/Buy Local Campaign	CEEE
Grunklee's Greenhouse - Reinbeck	Grundy	IA	Fruits & Vegetables, Garden Centers	Buy Fresh/Buy Local Campaign	CEEE
Gladbrook-Reinbeck - Reinbeck	Grundy	IA	High School	Environmental Issues Instruction	CEEE
AGWSR MS - Wellsburg	Grundy	IA	Middle School	Solar Energy Education	CEEE
Grundy Center MS - Grundy Center	Grundy	IA	Middle School	Solar Energy Education	CEEE
Stevens Homeschool	Guthrie	IA	Middle School	Solar Energy Education	CEEE
AGWSR - Ackley	Hardin	IA	Elementary School	Energy Education	CEEE
Eldora/New Providence ES - Eldora	Hardin	IA	Elementary School	Energy Education	CEEE
Hershey Family Nursery - Ackley	Hardin	IA	Fruits & Vegetables, Garden Centers	Buy Fresh/Buy Local Campaign	CEEE
Homeschool	Hardin	IA	Elementary School	Energy Education	CEEE
Lean Pork Lane - Eldora	Hardin	IA	Egg & Poultry Producers, Meat Prod	Buy Fresh/Buy Local Campaign	CEEE
Hubbard-Radcliffe HS - Hubbard	Hardin	IA	High School	Electric Vehicle Education	CEEE
Riverbend Middle School - Iowa Falls	Hardin	IA	Middle School	Environmental Issues Instruction	CEEE
Mt. Pleasant MS - Mount Pleasant	Henry	IA	Middle School	Energy Education	CEEE
Mt. Pleasant MS - Mount Pleasant	Henry	IA	Middle School	Solar Energy Education	CEEE
Salem ES - Salem	Henry	IA	Elementary School	Energy Education	CEEE

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
Van Allen ES - Mount Pleasant	Henry	IA	Elementary School	Energy Education	CEEE
Winfield/Mt Union - Winfield	Henry	IA	Middle School	Energy Education	CEEE
Natvig Family Farm - Cresco	Howard	IA	Meat, Eggs & Poultry	Buy Fresh/Buy Local Campaign	CEEE
Battle Creek-Ida Grove Schools - Ida Grove	Ida	IA	Middle School	Content knowledge re: waste & service	CEEE
Conservation Board	Ida	IA	Conservation Education	Content knowledge re: waste & service	CEEE
H-L-V ES - Victor	Iowa	IA	Elementary School	Energy Education	CEEE
Mary Welsh ES - Williamsburg	Iowa	IA	Elementary School	Energy Education	CEEE
Briggs ES - Maquoketa	Jackson	IA	Elementary School	Energy Education	CEEE
Gateway Natural Meats - Bellevue	Jackson	IA	Egg & Poultry Producers	Buy Fresh/Buy Local Campaign	CEEE
Gateway Natural Meats - Bellevue	Jackson	IA	Meat Producers	Buy Fresh/Buy Local Campaign	CEEE
Pekin Community School District - Packwood	Jefferson	IA	Elementary School	Energy Education	CEEE
Pekin Community HS - Packwood	Jefferson	IA	High School	Electric Vehicle Education	CEEE
Coralville Reading Conference	Johnson	IA	Schools	Intro to Select Environmental Books	CEEE
Iowa City Community School District - Iowa City	Johnson	IA	Elementary School	Content knowledge re: waste	CEEE
Iowa City Community School District - Iowa City	Johnson	IA	Elementary School	Content knowledge re: waste & service	CEEE
Iowa City West - Iowa City	Johnson	IA	High School	Environmental Issues Instruction	CEEE
Iowa City West - Iowa City	Johnson	IA	High School	Electric Vehicle Education	CEEE
Lakeview ES - Solon	Johnson	IA	Elementary School	Solar Energy Education	CEEE
Anamosa Community Schools - Anamosa	Jones	IA	Elementary School	Content knowledge re: waste & service	CEEE
Monticello High School - Monticello	Jones	IA	High School	Environmental Issues Instruction	CEEE
Hawthorne ES - Keokuk	Lee	IA	Elementary School	Energy Education	CEEE
Alliant Energy - Cedar Rapids	Linn	IA	Utility	Energy Education	CEEE
Cedar Rapids Community Schools Cedar Rapids	Linn	IA	Elementary School and Middle School	Content knowledge re: waste	CEEE
Coggon Elementary Center - Coggon	Linn	IA	Elementary School	Energy Education	CEEE
Jefferson High School - Cedar Rapids	Linn	IA	High School	Environmental Issues Instruction	CEEE
Kennedy - Cedar Rapids	Linn	IA	High School	Electric Vehicle Education	CEEE
Linn-Mar Community Schools Marion	Linn	IA	Middle School	Content knowledge re: waste	CEEE
Linn-Mar Excelsior - Marion	Linn	IA	Middle School	Environmental Issues Instruction	CEEE
Linn-Mar Excelsior - Marion	Linn	IA	Middle School	Solar Energy Education	CEEE
Oak Ridge MS - Marion	Linn	IA	Middle School	Environmental Issues Instruction	CEEE
Prarie -Cedar Rapids	Linn	IA	High School	Electric Vehicle Education	CEEE
Running Buffalo Ranch - Center Point	Linn	IA	Meat, Eggs & Poultry	Buy Fresh/Buy Local Campaign	CEEE
Speer Family	Linn	IA	High School	Electric Vehicle Education	CEEE

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
St. Matthew's School - Cedar Rapids	Linn	IA	Elementary School	Energy Education	CEEE
Trees Forever - Cedar Rapids	Linn	IA	non-gov't, non-profit conservation org	Ass't on grant project requirements, etc.	CEEE
West Lyon Community School District	Lyon	IA	Elementary School	Energy Education	CEEE
West Lyon MS - Inwood	Lyon	IA	Middle School	Solar Energy Education	CEEE
Pella MS - Pella	Marion	IA	Middle School	Energy Education	CEEE
Pella Middle School - Pella	Marion	IA	Middle School	Environmental Issues Instruction	CEEE
Pella Municipal Utility - Pella	Marion	IA	Utility	Energy Education	CEEE
Alliant Energy - Marshalltown	Marshall	IA	Utility	Energy Education	CEEE
Marshalltown Community Schools - Marshalltown	Marshall	IA	Elementary School and High School	Content knowledge re: waste	CEEE
Marshalltown Community College - Marshalltown	Marshall	IA	Community College	Technical Education/Sustainability	CEEE
Fisher ES - Marshalltown	Marshall	IA	Elementary School	Solar Energy Education	CEEE
Rogers ES - Marshalltown	Marshall	IA	Elementary School	Solar Energy Education	CEEE
West Marshall CDS - State Center	Marshall	IA	Middle School	Solar Energy Education	CEEE
West Marshall MS - State Center	Marshall	IA	Middle School	Energy Education	CEEE
Woodbury ES - Marshalltown	Marshall	IA	Elementary School	Energy Education	CEEE
Woodbury ES - Marshalltown	Marshall	IA	Elementary School	Solar Energy Education	CEEE
Osage Municipal Utility - Osage	Mitchell	IA	Utility	Energy Education	CEEE
Riceville HS - Riceville	Mitchell	IA	High School	Electric Vehicle Education	CEEE
Sacred Heart ES - Osage	Mitchell	IA	Elementary School	Energy Education	CEEE
Washington ES - Osage	Mitchell	IA	Elementary School	Energy Education	CEEE
Loess Hills Alliance	Monona	IA	non-gov'tal, non-profit land trust org	Ass't on grant project requirements, etc.	CEEE
Colorado ES - Muscatine	Muscatine	IA	Elementary School	Energy Education	CEEE
Dreamcatchers - West Liberty	Muscatine	IA	Middle School	Solar Energy Education	CEEE
Franklin ES - Muscatine	Muscatine	IA	Elementary School	Energy Education	CEEE
Grant ES - Muscatine	Muscatine	IA	Elementary School	Energy Education	CEEE
Jefferson ES - Muscatine	Muscatine	IA	Elementary School	Energy Education	CEEE
Madison ES - Muscatine	Muscatine	IA	Elementary School	Energy Education	CEEE
McKinley ES - Muscatine	Muscatine	IA	Elementary School	Energy Education	CEEE
Mulberry ES - Muscatine	Muscatine	IA	Elementary School	Energy Education	CEEE
Muscatine HS - Muscatine	Muscatine	IA	High School	Electric Vehicle Education	CEEE
Muscatine Power & Water - Muscatine	Muscatine	IA	Utility	Energy Education	CEEE
Washington ES - Muscatine	Muscatine	IA	Elementary School	Energy Education	CEEE
Hartley-Melvin-Sanborn MS - Sanborn	O'Brien	IA	Middle School	Solar Energy Education	CEEE
Ben Franklin ES - Sibley	Osceola	IA	Elementary School	Energy Education	CEEE
Essex Community Schools - Essex	Page	IA	Middle School	Solar Energy Education	CEEE
Conservation Board	Polk	IA	Conservation Education	Ass't on grant project requirements, etc.	CEEE
City of Pleasant Hill - Pleasant Hill	Polk	IA	K-12	Environmental Issues Instruction	CEEE

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
Des Moines Public Schools/Gifted& Talented - Des Moines	Polk	IA	K-12	Solar Energy Education	CEEE
Growing Green Community	Polk	IA	non-gov't green development org	Ass't on grant project requirements, etc.	CEEE
Iowa Environmental Council - Des Moines	Polk	IA	non-gov't, non-profit conservation org	Ass't on grant project requirements, etc.	CEEE
Iowa Recycling Assoc - Des Moines	Polk	IA	non-gov't, non-profit waste org	Ass't on grant project requirements, etc.	CEEE
Southeast Polk High School - Pleasant Hill	Polk	IA	High School	Environmental Issues Instruction	CEEE
Urbandale MS - Urbandale	Polk	IA	Middle School	Solar Energy Education	CEEE
Crossroads Park ES - West Des Moines	Polk	IA	Elementary School	Solar Energy Education	CEEE
Willowbrook Elementary - Altoona	Polk	IA	Elementary School	Environmental Issues Instruction	CEEE
Conservation Board	Pottawattamie	IA	Conservation Education	Ass't on grant project requirements, etc.	CEEE
Cody ES - Pleasant Valley	Scott	IA	Elementary School	Solar Energy Education	CEEE
Davenport	Scott	IA	Middle School	Solar Energy Education	CEEE
Rivermont Collegiate - Bettendorf	Scott	IA	Elementary School	Energy Education	CEEE
St. Paul the Apostle School - Davenport	Scott	IA	Middle School	Environmental Issues Instruction	CEEE
Spalding Catholic Middle School - Granville	Sioux	IA	Middle School	Energy Education	CEEE
Unity Christian HS - Orange City	Sioux	IA	High School	Solar Energy Education	CEEE
Western Hills Area Education Agency - Sioux City	Sioux	IA	government education agency	Ass't on grant project requirements, etc.	CEEE
Iowa 4-H Foundation	Story	IA	Foundation	Ass't on grant project requirements, etc.	CEEE
Iowa State University - Ames	Story	IA	institute for higher education	Ass't on grant project requirements, etc.	CEEE
Practical Farmers of Iowa	Story	IA	non-gov't, non-profit agriculture org	Ass't on grant project requirements, etc.	CEEE
Adolph's Produce and Bakery - Traer	Tama	IA	Fruits & Vegetables	Buy Fresh/Buy Local Campaign	CEEE
Dreesman Buffalo Ranch - Tama	Tama	IA	Meat Producers	Buy Fresh/Buy Local Campaign	CEEE
Dysart	Tama	IA	Farmers Market	Buy Fresh/Buy Local Campaign	CEEE
Heritage Farm - Clutier	Tama	IA	Fruits & Vegetables	Buy Fresh/Buy Local Campaign	CEEE
Hometown Foods - Gladbrook	Tama	IA	Grocers	Buy Fresh/Buy Local Campaign	CEEE
Lorenz Produce - Traer	Tama	IA	Fruits & Vegetables	Buy Fresh/Buy Local Campaign	CEEE
Monat Natural Beef - Traer	Tama	IA	Meat Producers	Buy Fresh/Buy Local Campaign	CEEE
Porkland Farms, Inc. - Buckingham	Tama	IA	Fruits & Vegetables	Buy Fresh/Buy Local Campaign	CEEE
South Tama County MS - Toledo	Tama	IA	Middle School	Solar Energy Education	CEEE
Toledo	Tama	IA	Farmers Market	Buy Fresh/Buy Local Campaign	CEEE
Traer	Tama	IA	Farmers Market	Buy Fresh/Buy Local Campaign	CEEE
North Tama Community Schools - Traer	Tama	IA	High School	Content knowledge re: waste & service	CEEE
Ottumwa HS - Ottumwa	Wapello	IA	High School	Solar Energy Education	CEEE
Ottumwa Community Schools - Ottumwa	Wapello	IA	Middle School	Content knowledge re: waste	CEEE
Ottumwa Community Schools - Ottumwa	Wapello	IA	Middle School	Content knowledge re: waste & service	CEEE

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
Indianola Middle School - Indianola	Warren	IA	Middle School	Environmental Issues Instruction	CEEE
Mid-Prairie MS - Wellman	Washington	IA	Middle School	Solar Energy Education	CEEE
Washington HS - Washington	Washington	IA	High School	Content knowledge re: waste & service	CEEE
Butler ES - Fort Dodge	Webster	IA	Elementay School	Energy Education	CEEE
Fair Oaks MS -Fort Dodge	Webster	IA	Elementay School	Energy Education	CEEE
Iowa Central CC - Fort Dodge	Webster	IA	Community College	Electric Vehicle Education	CEEE
Iowa Central CC - Fort Dodge	Webster	IA	Community College	Solar Energy Education	CEEE
Forest City MS - Forest City	Winnebego	IA	Middle School	Solar Energy Education	CEEE
Homeschool	Winnebago	IA	Elementay School	Energy Education	CEEE
UNI/RHR	Winnebago	IA	Individual	Electric Vehicle Education	CEEE
Decorah Community Schools - Decorah	Winneshiek	IA	High School	Environmental Issues Instruction	CEEE
Lawton-Bronson Jr./Sr. High School - Lawton	Woodbury	IA	Middle School	Solar Energy Education	CEEE
Sergeant Bluff-Luton HS - Sergeant Bluff	Woodbury	IA	High School	Electric Vehicle Education	CEEE
Bishop Energy Engineering - Northwood	Worth	IA	Energy Consultant	Energy Education	CEEE
Northwood-Kensett ES - Northwood	Worth	IA	Elementay School	Energy Education	CEEE
Northwood-Kensett Jr./Sr. High School - Northwood	Worth	IA	Middle/High School	Solar Energy Education	CEEE
Belmond-Klemme Community School - Belmond	Wright	IA	Middle/High School	Solar Energy Education	CEEE
Clarion ES - Clarion	Wright	IA	Elementay School	Energy Education	CEEE
Lincoln ES - Eagle Grove	Wright	IA	Elementay School	Energy Education	CEEE
Robert Blue MS - Eagle Grove	Wright	IA	Middle School	Energy Education	CEEE
Advanced Heat Treat - Waterloo	Black Hawk	IA	Manufacturing	Training	EDC
Allen Health System - Waterloo	Black Hawk	IA	Health Care	Training	EDC
Aviands (BH County Jail) - Waterloo	Black Hawk	IA	Service	Training	EDC
Bossard - Cedar Falls	Black Hawk	IA	Manufacturing	Training	EDC
Cedar Falls Fire & Rescue - Cedar Falls	Black Hawk	IA	Service	Training	EDC
Cedar Falls Utilities - Cedar Falls	Black Hawk	IA	Service	Training	EDC
City of Cedar Falls - Cedar Falls	Black Hawk	IA	Government	Training	EDC
ConAgra Grocery Products - Waterloo	Black Hawk	IA	Manufacturing	Training	EDC
CUCCC - Cedar Falls	Black Hawk	IA	Service	Training	EDC
Doerfer Companies - Cedar Falls	Black Hawk	IA	Manufacturing	Training	EDC
Dyton, Inc. - Cedar Falls	Black Hawk	IA	Service	Training	EDC
Eagle Ottawa- Waterloo	Black Hawk	IA	Manufacturing	Training	EDC
Exceptional Persons, Inc. - Waterloo	Black Hawk	IA	Service	Training	EDC
Ferguson - Waterloo	Black Hawk	IA	Service	Training	EDC
Grainger Parts - Waterloo	Black Hawk	IA	Service	Training	EDC
Iowa Metal Spinners - Cedar Falls	Black Hawk	IA	Manufacturing	Training	EDC

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
John Deere Waterloo Works - Waterloo	Black Hawk	IA	Manufacturing	Training	EDC
Kay Park Industries - Janesville	Black Hawk	IA	Manufacturing	Training	EDC
KWWL TV - Waterloo	Black Hawk	IA	Service	Training	EDC
Liberty Bail Bonds - Waterloo	Black Hawk	IA	Service	Training	EDC
Manatts - Elk Run Heights	Black Hawk	IA	Service	Trainingi	EDC
MidAmerican Energy - Waterloo	Black Hawk	IA	Utility	Training	EDC
NE Family Practice - Waterloo	Black Hawk	IA	Health Care	Training	EDC
Rabo AgriFinance - Cedar Falls	Black Hawk	IA	Financial	Training	EDC
Omega Cabinets- Waterloo	Black Hawk	IA	Manufacturing	Training	EDC
Porta-Vet - Hudson	Black Hawk	IA	Manufacturing	Training	EDC
Shoff Consulting Engineers - Cedar Falls	Black Hawk	IA	Service	Training	EDC
UNI Facilities Svcs - Cedar Falls	Black Hawk	IA	Service	Training	EDC
UNI Physics Dept. - Cedar Falls	Black Hawk	IA	Education	Training	EDC
United Concrete - Elk Run Heights	Black Hawk	IA	Service	Training	EDC
University Book & Supply - Cedar Falls	Black Hawk	IA	Retail	Training	EDC
Veridian Credit Union - Waterloo	Black Hawk	IA	Financial	Training	EDC
Viking Pump, Inc - Cedar Falls	Black Hawk	IA	Manufacturing	Training	EDC
Waterloo Implement - Hudson	Black Hawk	IA	Retail	Training	EDC
Waterloo Industries, Inc - Waterloo	Black Hawk	IA	Manufacturing	Training	EDC
Wheaton Franciscan Healthcare - Waterloo	Black Hawk	IA	Service	Training	EDC
CUNA Mutual - Waverly	Bremer	IA	Service	Training	EDC
GMT Corporation - Waverly	Bremer	IA	Manufacturing	Training	EDC
Larabee Center - Waverly	Bremer	IA	Service	Training	EDC
Nestle USA Beverage Div. - Waverly	Bremer	IA	Manufacturing	Training	EDC
Northern Iowa Therapy - Waverly	Bremer	IA	Health Care	Training	EDC
Waverly Health Center - Waverly	Bremer	IA	Service	Training	EDC
Buchanan Cty. Health Ctr - Independence	Buchanan	IA	Health Care	Training	EDC
Geater Machining & Mfg- Independence	Buchanan	IA	Manufacturing	Training	EDC
Cambrex Charles City - Charles City	Franklin	IA	Manufacturing	Training	EDC
Lincoln Savings Bank - Reinbeck	Grundy	IA	Financial	Training	EDC
Holden's Foundation Seeds	Iowa	IA	Agriculture	Training	EDC
ACT - Iowa City	Johnson	IA	Service	Training	EDC
Alliant Energy - Cedar Rapids	Linn	IA	Service	Training	EDC
Big Brothers Big Sisters - Cedar Rapids	Linn	IA	Service	Training	EDC
Gazette Communications - Cedar Rapids	Linn	IA	Publishing	Training	EDC
Intermec Technologies - Cedar Rapids	Linn	IA	Manufacturing	Training	EDC
Linn Area Credit Union - Cedar Rapids	Linn	IA	Financial	Training	EDC

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
Midland Forge - Cedar Rapids	Linn	IA	Manufacturing	Training	EDC
Rockwell Collins - Cedar Rapids	Linn	IA	Manufacturing	Traininig	EDC
St. Luke's Hospital - Cedar Rapids	Linn	IA	Health Care	Training	EDC
United Fire & Casualty Co - Cedar Rapids	Linn	IA	Service	Training	EDC
Worley Warehousing - Cedar Rapids	Linn	IA	Service	Training	EDC
Black Hawk County	Black Hawk	IA	County Government	Education & Research activities in Geospatial technologies	GeoTREE
City of Cedar Falls	Black Hawk	IA	City Government	Education & Research activities in Geospatial technologies	GeoTREE
City of Evansdale	Black Hawk	IA	City Government	Education & Research activities in Geospatial technologies	GeoTREE
City of Waterloo	Black Hawk	IA	City Government	Education & Research activities in Geospatial technologies	GeoTREE
Natural Resources Conservation Services	Black Hawk	IA	US Government Agency	Education & Research activities in Geospatial technologies	GeoTREE
Iowa Department of Natural Resources	Statewide	IA	State Government	Education & Research activities in Geospatial technologies	GeoTREE
Iowa Department of Natural Resources	Statewide	IA	State Government	Education & Research activities in Geospatial technologies	GeoTREE
US Fish and Wildlife Service and NASA	Statewide	IA	US Government Agency	Education & Research activities in Geospatial technologies	GeoTREE
Radio La Buena	Black Hawk	IA	Workforce Development	Newcomer Worker Orientation	ICILI
El Centro Latinoamericano	Black Hawk	IA	Community Services	Training	ICILI
Covenant Hospital	Black Hawk	IA	Health Care	Cultural Competency Training	ICILI
Evangelical Lutheran Church of America	Black Hawk	IA	Community Services	Training	ICILI
Cedar Valley Hospice	Black Hawk	IA	Health Care	Cultural Competency Training	ICILI
UNI-Cedar Valley Roundtable	Black Hawk	IA	Education	Training	ICILI
Waterloo-Cedar Falls Chambers of Commerce	Black Hawk	IA	Community Services	Training	ICILI
Cedar Valley Leadership Institute	Black Hawk	IA	Economic Development	Training	ICILI
Sartori Hospital	Black Hawk	IA	Health Care	Measuring Diversity in the Workplace Training	ICILI
Allen Health System - Waterloo	Black Hawk	IA	Health Care	Cultural Competency Training	ICILI
Buena Vista Regional Hospital	Buena Vista	IA	Health Care	Cultural Competency Training	ICILI
BRIDGES Mental Health Project	Buena Vista	IA	Health Care	Cultural Competency Training	ICILI
Mercy Hospital	Cerro Gordo	IA	Health Care	Cultural Competency Training	ICILI
Hampton Chamber of Commerce	Franklin	IA	Economic Development	Training	ICILI
Hamilton County Health Department	Hamilton	IA	Health Care	Cultural Competency Training	ICILI

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
University of Iowa College of Public Health	Johnson	IA	Health Care	Training	ICILI
Iowa City Foreign Relations Council	Johnson	IA	Community Services	Training	ICILI
Catherine McCauley Center	Linn	IA	Education	Training	ICILI
Diversity Focus	Linn	IA	Education	Training	ICILI
Iowa Business Council	Marion	IA	Business and Industry	Training	ICILI
Marshalltown Community College	Marshall	IA	Education	Training	ICILI
Iowa Department of Public Safety	Polk	IA	Iowa State Patrol	Cultural Competency Training	ICILI
Des Moines Higher Education Collaborattive	Polk	IA	Downtown Employers	Measuring Diversity Training	ICILI
Iowa Department of Economic Development	Polk	IA	Economic Development	Immigration & Workforce in Iowa	ICILI
Iowa Department of Public Health	Polk	IA	Health Care	Network Development	ICILI
Planned Parenthood of Greater Des Moines	Polk	IA	Health Care	Cultural Competency Training	ICILI
Central Iowa Hospice	Polk	IA	Health Care	Cultural Competency Training	ICILI
Iowa Public Health Association	Polk	IA	Health Care	Cultural Competency Training	ICILI
Des Moines University	Polk	IA	Education	Cultural Competency Training	ICILI
Iowa Deparment of Education	Polk	IA	Education	Training	ICILI
Western Iowa Community College	Pottawattamie	IA	Education	Training	ICILI
Western Iowa Caregivers Association	Pottawattamie	IA	Health Care	Training	ICILI
Sioux Center Community Hospital	Sioux	IA	Health Care	Cultural Competency Training	ICILI
Iowa Workforce Development	Tama	IA	Community Services	Cultural Competency Training	ICILI
Uper Des Moines Opportunity	Webster	IA	Community Services	Cultural Competency Training	ICILI
St. Luke's Hospital - Sioux City	Woodbury	IA	Health Care	Cultural Competency Training	ICILI
Quad Cities Interfaith Alliance	Scott	IA	Community Service	Training	ICILI
Sioux County Hospital	Sioux	IA	Health Care	Cultural Competency Training	ICILI
Western Iowa Advantage	Adams	IA	Economic Development	Economic Development Assistance	IDM
Northeast Iowa Business Network	Appanoose	IA	Economic Development	Economic Impact	IDM
Western Iowa Advantage	Benton	IA	Economic Development	Economic Development Assistance	IDM
Goodwill Industries	Black Hawk	IA	Non-Profit Organization	Economic Development Assistance	IDM
Greater Cedar Valley Alliance - Waterloo & Cedar Falls	Black Hawk	IA	Economic Development	Economic Development Assistance	IDM
Iowa Connections	Black Hawk	IA	Economic Development	Economic Development Assistance	IDM
Opportunity Works - Multi-community	Black Hawk	IA	City Government	Economic Development Assistance	IDM
Waterloo Neighborhood EDC	Black Hawk	IA	Economic Development	Economic Development Assistance	IDM
Waterloo, City of	Black Hawk	IA	Economic Development	Economic Development Assistance	IDM
Boone's Futures	Bremer	IA	Economic Development	Economic Impact	IDM
Opportunity Works - Multi-community	Bremer	IA	Economic Development	Economic Development Assistance	IDM

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
Opportunity Works - Multi-community	Butler	IA	Economic Development	Economic Development Assistance	IDM
Opportunity Works - Multi-community	Carroll	IA	Economic Development	Economic Development Assistance	IDM
Western Iowa Advantage	Cass	IA	Economic Development	Economic Development Assistance	IDM
Prosperity Eastern Iowa	Cedar	IA	Economic Development	Economic Development Assistance	IDM
Clear Lake Economic Development	Cerro Gordo	IA	Economic Development	Economic Development Assistance	IDM
Tipton Economic Development	Cerro Gordo	IA	Economic Development	Economic Development Assistance	IDM
DevelopSource	Clarke	IA	Economic Development	Economic Development Assistance	IDM
Northeast Iowa Business Network	Clarke	IA	Economic Development	Economic Development Assistance	IDM
Elkader, City of	Clayton	IA	City Government	Economic Development Assistance	IDM
Iowa Great Lakes	Clayton	IA	Economic Development	Economic Development Assistance	IDM
Offshore Iowa Communities-Osceola	Clayton	IA	Economic Development	Economic Development Assistance	IDM
Northeast Iowa Business Network	Clinton	IA	Economic Development	Economic Development Assistance	IDM
Prosperity Eastern Iowa	Clinton	IA	Economic Development	Economic Development Assistance	IDM
Western Iowa Advantage	Dallas	IA	City Government	Economic Development Assistance	IDM
Waukee, City of	Davis	IA	Economic Development	Economic Development Assistance	IDM
Decatur County Economic Development	Decatur	IA	Economic Development	Economic Development Assistance	IDM
MyEntreNet Regional & Local Entrep	Decatur	IA	Economic Development	Economic Development Assistance	IDM
Prosperity Eastern Iowa	Delaware	IA	Economic Development	Economic Development Assistance	IDM
Iowa Great Lakes	Dickinson	IA	Economic Development	Economic Development Assistance	IDM
Prosperity Eastern Iowa	Dubuque	IA	Economic Development	Economic Development Assistance	IDM
Iowa Great Lakes	Emmett	IA	Economic Development	Economic Development Assistance	IDM
DevelopSource	Fayette	IA	Economic Development	Economic Development Assistance	IDM
Elgin Race America	Fayette	IA	Non-Profit Organization	Economic Development Assistance	IDM
Fayette County Economic Development	Fayette	IA	Economic Development	Economic Development Assistance	IDM
Northeast Iowa Business Network	Fayette	IA	Economic Development	Economic Development Assistance	IDM
Oelwein Chamber & Area Development	Fayette	IA	Economic Development	Economic Development Assistance	IDM
Offshore Iowa Communities-Oelwein	Floyd	IA	Economic Development	Economic Development Assistance	IDM
Franklin County Economic Development - Hampton	Franklin	IA	Economic Development	Economic Development Assistance	IDM
Mid West Partnership	Greene	IA	Economic Development	Economic Development Assistance	IDM
Western Iowa Advantage	Grundy	IA	Economic Development	Economic Development Assistance	IDM
Mid West Partnership	Guthrie	IA	Economic Development	Economic Development Assistance	IDM
Opportunity Works - Multi-community	Guthrie	IA	Economic Development	Economic Development Assistance	IDM
Hancock County Economic Dev Corp	Hancock	IA	Economic Development	Economic Development Assistance	IDM
Western Iowa Advantage	Hancock	IA	Economic Development	Economic Development Assistance	IDM
Iowa Valley Community College District	Hardin	IA	Economic Development	Economic Development Assistance	IDM
DevelopSource	Henry	IA	Economic Development	Economic Development Assistance	IDM
Offshore Iowa Communities-Mount Pleasant	Henry	IA	Economic Development	Economic Development Assistance	IDM

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
Ida County Economic Develop Corp	Ida	IA	Economic Development	Economic Development Assistance	IDM
Northeast Iowa Business Network	Ida	IA	Economic Development	Economic Development Assistance	IDM
Prosperity Eastern Iowa	Jackson	IA	Economic Development	Economic Development Assistance	IDM
Western Iowa Advantage	Jackson	IA	Economic Development	Economic Development Assistance	IDM
Iowa Connections	Jasper	IA	Economic Development	Economic Development Assistance	IDM
Fairfield Economic Development Association	Jefferson	IA	Economic Development	Economic Development Assistance	IDM
Iowa City Area Development Group	Jones	IA	Economic Development	Economic Development Assistance	IDM
Prosperity Eastern Iowa	Jones	IA	Economic Development	Economic Development Assistance	IDM
Algona	Kossuth	IA	Economic Development	Economic Development Assistance	IDM
Keokuk Chamber of Commerce	Lee	IA	Economic Development	Economic Development Assistance	IDM
MyEntreNet Regional & Local Entrep	Linn	IA	Economic Development	Economic Development Assistance	IDM
Offshore Iowa Communities-Algona	Linn	IA	Utility	Economic Development Assistance	IDM
Prosperity Eastern Iowa	Linn	IA	Economic Development	Economic Development Assistance	IDM
Prosperity Eastern Iowa	Marion	IA	Economic Development	Economic Development Assistance	IDM
Green Tree Partners	Marshall	IA	Economic Development	Economic Development Assistance	IDM
Iowa Valley Community College District	Marshall	IA	Higher Education	Economic Development Assistance	IDM
Iowa Connections	Mitchell	IA	Economic Development	Economic Development Assistance	IDM
Muscatine Economic Development	Muscatine	IA	Economic Development	Economic Development Assistance	IDM
Sibley, City of	Osceola	IA	City Government	Economic Development Assistance	IDM
Council Bluffs Chamber of Commerce	Poweshiek	IA	Economic Development	Economic Development Assistance	IDM
Iowa Valley Community College District	Poweshiek	IA	Economic Development	Economic Development Assistance	IDM
MyEntreNet Regional & Local Entrep	Poweshiek	IA	Economic Development	Economic Development Assistance	IDM
Iowa Connections	Ringgold	IA	Economic Development	Economic Development Assistance	IDM
Western Iowa Advantage	Scott	IA	Utility	Economic Development Assistance	IDM
Offshore Iowa Communities-Harlan	Shelby	IA	Economic Development	Economic Development Assistance	IDM
Iowa Board of Regents	Statewide	IA	Economic Development	Economic Development Assistance	IDM
Iowa Department of Economic Development	Statewide	IA	State Agency	Economic Development Assistance	IDM
Iowa Great Places	Statewide	IA	Economic Development	Economic Development Assistance	IDM
Iowa Workforce Development	Statewide	IA	Economic Development	Economic Development Assistance	IDM
Iowa Connections	Tama	IA	Economic Development	Economic Development Assistance	IDM
Professional Developers of Iowa	Tama	IA	Economic Development	Economic Development Assistance	IDM
Tama County Economic Development	Tama	IA	Economic Development	Economic Development Assistance	IDM
Opportunity Works - Multi-community	Taylor	IA	Economic Development	Economic Development Assistance	IDM
Warren County Economic Dev Corp	Warren	IA	Economic Development	Economic Development Assistance	IDM
Northeast Iowa Business Network	Woodbury	IA	Economic Development	Economic Impact	IDM
Adair	Adair	IA	Manufacturing (20-39)	Air Assistance	IWRC
New Albin	Allamakee	IA	Manufacturing (20-39)	Air Assistance	IWRC

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
New Albin	Allamakee	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Waukon	Allamakee	IA	Manufacturing (20-39)	Air Assistance	IWRC
Waukon	Allamakee	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Centerville	Appanoose	IA	Transportation and Public Utilities (40-49)	Air Assistance	IWRC
Vinton	Benton	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Vinton	Benton	IA	Construction (15-17)	Air Assistance	IWRC
Cedar Falls	Black Hawk	IA	Retail Trade (52-59)	Air Assistance	IWRC
Cedar Falls	Black Hawk	IA	Retail Trade (52-59)	On-Site Assistance	IWRC
Cedar Falls	Black Hawk	IA	Agriculture, Forestry, and Fishing (01-09)	On-Site Assistance	IWRC
Cedar Falls	Black Hawk	IA	Retail Trade (52-59)	On-Site Assistance	IWRC
Cedar Falls	Black Hawk	IA	Retail Trade (52-59)	On-Site Assistance	IWRC
Cedar Falls	Black Hawk	IA	Manufacturing (20-39)	Air Assistance	IWRC
Cedar Falls	Black Hawk	IA	Services (70-89)	On-Site Assistance	IWRC
Evansdale	Black Hawk	IA	Wholesale Trade (50-51)	On-Site Assistance	IWRC
Evansdale	Black Hawk	IA	Wholesale Trade (50-51)	Air Assistance	IWRC
Waterloo	Black Hawk	IA	Wholesale Trade (50-51)	On-Site Assistance	IWRC
Waterloo	Black Hawk	IA	Retail Trade (52-59)	Air Assistance	IWRC
Waterloo	Black Hawk	IA	Transportation and Public Utilities (40-49)	On-Site Assistance	IWRC
Waterloo	Black Hawk	IA	Services (70-89)	Air Assistance	IWRC
Waterloo	Black Hawk	IA	Services (70-89)	On-Site Assistance	IWRC
Waterloo	Black Hawk	IA	Wholesale Trade (50-51)	Air Assistance	IWRC
Waterloo	Black Hawk	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Waterloo	Black Hawk	IA	Construction (15-17)	On-Site Assistance	IWRC
Waterloo	Black Hawk	IA	Manufacturing (20-39)	Air Assistance	IWRC
Waterloo	Black Hawk	IA	Construction (15-17)	On-Site Assistance	IWRC
Waterloo	Black Hawk	IA	Retail Trade (52-59)	On-Site Assistance	IWRC
Waterloo	Black Hawk	IA	Services (70-89)	On-Site Assistance	IWRC
Waterloo	Black Hawk	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Waterloo	Black Hawk	IA	Wholesale Trade (50-51)	On-Site Assistance	IWRC
Waterloo	Black Hawk	IA	Retail Trade (52-59)	On-Site Assistance	IWRC
Boone	Boone	IA	Manufacturing (20-39)	Air Assistance	IWRC
Boone	Boone	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Denver	Bremer	IA	Manufacturing (20-39)	Air Assistance	IWRC
Denver	Bremer	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Janesville	Bremer	IA	Services (70-89)	On-Site Assistance	IWRC
Janesville	Bremer	IA	Services (70-89)	Air Assistance	IWRC
Readlyn	Bremer	IA	Transportation and Public Utilities (40-49)	On-Site Assistance	IWRC
Sumner	Bremer	IA	Services (70-89)	On-Site Assistance	IWRC
Sumner	Bremer	IA	Manufacturing (20-39)	Air Assistance	IWRC

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
Sumner	Bremer	IA	Wholesale Trade (50-51)	Air Assistance	IWRC
Waverly	Bremer	IA	Services (70-89)	On-Site Assistance	IWRC
Waverly	Bremer	IA	Manufacturing (20-39)	Air Assistance	IWRC
Brandon	Buchanan	IA	Wholesale Trade (50-51)	On-Site Assistance	IWRC
Fairbank	Buchanan	IA	Wholesale Trade (50-51)	On-Site Assistance	IWRC
Independence	Buchanan	IA	Manufacturing (20-39)	Air Assistance	IWRC
Independence	Buchanan	IA	Wholesale Trade (50-51)	Air Assistance	IWRC
Dumont	Butler	IA	Wholesale Trade (50-51)	On-Site Assistance	IWRC
Coon Rapids	Carroll	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Tipton	Cedar	IA	Wholesale Trade (50-51)	On-Site Assistance	IWRC
Tipton	Cedar	IA	Manufacturing (20-39)	Air Assistance	IWRC
Tipton	Cedar	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
West Branch	Cedar	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Mason City	Cerro Gordo	IA	Manufacturing (20-39)	Air Assistance	IWRC
Mason City	Cerro Gordo	IA	Services (70-89)	Air Assistance	IWRC
Rockwell	Cerro Gordo	IA	Services (70-89)	Air Assistance	IWRC
Cherokee	Cherokee	IA	Nonclassified Establishments (99-99)	Air Assistance	IWRC
Cherokee	Cherokee	IA	Manufacturing (20-39)	Air Assistance	IWRC
Fredericksburg	Chickasaw	IA	Manufacturing (20-39)	Air Assistance	IWRC
Nashua	Chickasaw	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
New Hampton	Chickasaw	IA	Construction (15-17)	Air Assistance	IWRC
New Hampton	Chickasaw	IA	Manufacturing (20-39)	Air Assistance	IWRC
New Hampton	Chickasaw	IA	Retail Trade (52-59)	Air Assistance	IWRC
New Hampton	Chickasaw	IA	Transportation and Public Utilities (40-49)	Air Assistance	IWRC
New Hampton	Chickasaw	IA	Retail Trade (52-59)	On-Site Assistance	IWRC
Osceola	Clarke	IA	Manufacturing (20-39)	Air Assistance	IWRC
Osceola	Clarke	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Dickens	Clay	IA	Manufacturing (20-39)	Air Assistance	IWRC
Spencer	Clay	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Spencer	Clay	IA	Manufacturing (20-39)	Air Assistance	IWRC
Edgewood	Clayton	IA	Manufacturing (20-39)	Air Assistance	IWRC
Elkader	Clayton	IA	Wholesale Trade (50-51)	Air Assistance	IWRC
Guttenberg	Clayton	IA	Manufacturing (20-39)	Air Assistance	IWRC
Guttenberg	Clayton	IA	Retail Trade (52-59)	On-Site Assistance	IWRC
McGregor	Clayton	IA	Services (70-89)	Air Assistance	IWRC
Monona	Clayton	IA	Transportation and Public Utilities (40-49)	Air Assistance	IWRC
Monona	Clayton	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Camanche	Clinton	IA	Services (70-89)	Air Assistance	IWRC
Clinton	Clinton	IA	Wholesale Trade (50-51)	Air Assistance	IWRC

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
Clinton	Clinton	IA	Services (70-89)	Air Assistance	IWRC
De Witt	Clinton	IA	Mining (10-14)	Air Assistance	IWRC
Denison	Crawford	IA	Transportation and Public Utilities (40-49)	On-Site Assistance	IWRC
Denison	Crawford	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Denison	Crawford	IA	Manufacturing (20-39)	Air Assistance	IWRC
Adel	Dallas	IA	Manufacturing (20-39)	Air Assistance	IWRC
Bloomfield	Davis	IA	Wholesale Trade (50-51)	On-Site Assistance	IWRC
Earlville	Delaware	IA	Manufacturing (20-39)	Air Assistance	IWRC
Burlington	Des Moines	IA	Manufacturing (20-39)	Air Assistance	IWRC
Milford	Dickinson	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Milford	Dickinson	IA	Manufacturing (20-39)	Air Assistance	IWRC
Spirit Lake	Dickinson	IA	Manufacturing (20-39)	Air Assistance	IWRC
Spirit Lake	Dickinson	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Spirit Lake	Dickinson	IA	Services (70-89)	On-Site Assistance	IWRC
Cascade	Dubuque	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Cascade	Dubuque	IA	Manufacturing (20-39)	Air Assistance	IWRC
Cascade	Dubuque	IA	Public Administration (91-97)	Air Assistance	IWRC
Dubuque	Dubuque	IA	Services (70-89)	Air Assistance	IWRC
Dubuque	Dubuque	IA	Wholesale Trade (50-51)	Air Assistance	IWRC
Dubuque	Dubuque	IA	Services (70-89)	On-Site Assistance	IWRC
Dubuque	Dubuque	IA	Services (70-89)	On-Site Assistance	IWRC
Dubuque	Dubuque	IA	Public Administration (91-97)	Air Assistance	IWRC
Dyersville	Dubuque	IA	Manufacturing (20-39)	Air Assistance	IWRC
Dyersville	Dubuque	IA	Retail Trade (52-59)	On-Site Assistance	IWRC
Epworth	Dubuque	IA	Wholesale Trade (50-51)	On-Site Assistance	IWRC
Farley	Dubuque	IA	Manufacturing (20-39)	Air Assistance	IWRC
Peosta	Dubuque	IA	Manufacturing (20-39)	Air Assistance	IWRC
Peosta	Dubuque	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Sherrill	Dubuque	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Sherrill	Dubuque	IA	Nonclassified Establishments (99-99)	Air Assistance	IWRC
Worthington	Dubuque	IA	Wholesale Trade (50-51)	On-Site Assistance	IWRC
Oelwein	Fayette	IA	Transportation and Public Utilities (40-49)	Air Assistance	IWRC
Oelwein	Fayette	IA	Manufacturing (20-39)	Air Assistance	IWRC
Conrad	Grundy	IA	Manufacturing (20-39)	Air Assistance	IWRC
Reinbeck	Grundy	IA	Manufacturing (20-39)	Air Assistance	IWRC
Garner	Hancock	IA	Manufacturing (20-39)	Air Assistance	IWRC
Garner	Hancock	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Logan	Harrison	IA	Wholesale Trade (50-51)	Air Assistance	IWRC
Missouri Valley	Harrison	IA	Transportation and Public Utilities (40-49)	Air Assistance	IWRC

8. Client and Project Summary
University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
Mount Pleasant	Henry	IA	Manufacturing (20-39)	Air Assistance	IWRC
Mount Pleasant	Henry	IA	Services (70-89)	Air Assistance	IWRC
Mount Pleasant	Henry	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Mount Pleasant	Henry	IA	Transportation and Public Utilities (40-49)	Air Assistance	IWRC
Mount Pleasant	Henry	IA	Services (70-89)	On-Site Assistance	IWRC
Mount Pleasant	Henry	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
New London	Henry	IA	Public Administration (91-97)	Air Assistance	IWRC
Cresco	Howard	IA	Wholesale Trade (50-51)	On-Site Assistance	IWRC
Cresco	Howard	IA	Agriculture, Forestry, and Fishing (01-09)	On-Site Assistance	IWRC
Gilmore City	Humboldt	IA	Mining (10-14)	Air Assistance	IWRC
Maquoketa	Jackson	IA	Transportation and Public Utilities (40-49)	Air Assistance	IWRC
Sully	Jasper	IA	Construction (15-17)	Air Assistance	IWRC
Fairfield	Jefferson	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Fairfield	Jefferson	IA	Manufacturing (20-39)	Air Assistance	IWRC
Fairfield	Jefferson	IA	Services (70-89)	Air Assistance	IWRC
Fairfield	Jefferson	IA	Construction (15-17)	Air Assistance	IWRC
Lockridge	Jefferson	IA	Wholesale Trade (50-51)	On-Site Assistance	IWRC
Coralville	Johnson	IA	Manufacturing (20-39)	Air Assistance	IWRC
North Liberty	Johnson	IA	Retail Trade (52-59)	Air Assistance	IWRC
Anamosa	Jones	IA	Wholesale Trade (50-51)	Air Assistance	IWRC
Monticello	Jones	IA	Manufacturing (20-39)	Air Assistance	IWRC
Monticello	Jones	IA	Wholesale Trade (50-51)	Air Assistance	IWRC
Keota	Keokuk	IA	Manufacturing (20-39)	Air Assistance	IWRC
What Cheer	Keokuk	IA	Wholesale Trade (50-51)	On-Site Assistance	IWRC
Fort Madison	Lee	IA	Wholesale Trade (50-51)	On-Site Assistance	IWRC
Fort Madison	Lee	IA	Services (70-89)	On-Site Assistance	IWRC
Keokuk	Lee	IA	Nonclassified Establishments (99-99)	Air Assistance	IWRC
Keokuk	Lee	IA	Services (70-89)	On-Site Assistance	IWRC
Cedar Rapids	Linn	IA	Services (70-89)	On-Site Assistance	IWRC
Cedar Rapids	Linn	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Cedar Rapids	Linn	IA	Transportation and Public Utilities (40-49)	On-Site Assistance	IWRC
Cedar Rapids	Linn	IA	Services (70-89)	On-Site Assistance	IWRC
Cedar Rapids	Linn	IA	Mining (10-14)	Air Assistance	IWRC
Cedar Rapids	Linn	IA	Wholesale Trade (50-51)	Air Assistance	IWRC
Cedar Rapids	Linn	IA	Manufacturing (20-39)	Air Assistance	IWRC
Hiawatha	Linn	IA	Manufacturing (20-39)	Air Assistance	IWRC
Marion	Linn	IA	Manufacturing (20-39)	Air Assistance	IWRC
Marion	Linn	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Marion	Linn	IA	Wholesale Trade (50-51)	Air Assistance	IWRC

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
Mount Vernon	Linn	IA	Manufacturing (20-39)	Air Assistance	IWRC
Springville	Linn	IA	Manufacturing (20-39)	Air Assistance	IWRC
Wapello	Louisa	IA	Manufacturing (20-39)	Air Assistance	IWRC
George	Lyon	IA	Manufacturing (20-39)	Air Assistance	IWRC
Cedar	Mahaska	IA	Agriculture, Forestry, and Fishing (01-09)	Air Assistance	IWRC
Knoxville	Marion	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Knoxville	Marion	IA	Construction (15-17)	Air Assistance	IWRC
Knoxville	Marion	IA	Transportation and Public Utilities (40-49)	Air Assistance	IWRC
Pella	Marion	IA	Manufacturing (20-39)	Air Assistance	IWRC
Malvern	Mills	IA	Manufacturing (20-39)	Air Assistance	IWRC
Malvern	Mills	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Onawa	Monona	IA	Manufacturing (20-39)	Air Assistance	IWRC
Moscow	Muscatine	IA	Manufacturing (20-39)	Air Assistance	IWRC
Muscatine	Muscatine	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Muscatine	Muscatine	IA	Services (70-89)	On-Site Assistance	IWRC
Muscatine	Muscatine	IA	Transportation and Public Utilities (40-49)	Air Assistance	IWRC
Muscatine	Muscatine	IA	Manufacturing (20-39)	Air Assistance	IWRC
West Liberty	Muscatine	IA	Manufacturing (20-39)	Air Assistance	IWRC
Wilton	Muscatine	IA	Manufacturing (20-39)	Air Assistance	IWRC
Emmetsburg	Palo Alto	IA	Manufacturing (20-39)	Air Assistance	IWRC
Emmetsburg	Palo Alto	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Le Mars	Plymouth	IA	Services (70-89)	Air Assistance	IWRC
Le Mars	Plymouth	IA	Services (70-89)	On-Site Assistance	IWRC
Laurens	Pocahontas	IA	Manufacturing (20-39)	Air Assistance	IWRC
Altoona	Polk	IA	Retail Trade (52-59)	On-Site Assistance	IWRC
Ankeny	Polk	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Des Moines	Polk	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Des Moines	Polk	IA	Services (70-89)	On-Site Assistance	IWRC
Des Moines	Polk	IA	Services (70-89)	On-Site Assistance	IWRC
Des Moines	Polk	IA	Manufacturing (20-39)	Air Assistance	IWRC
West Des Moines	Polk	IA	Services (70-89)	On-Site Assistance	IWRC
Council Bluffs	Pottawattamie	IA	Manufacturing (20-39)	Air Assistance	IWRC
Neola	Pottawattamie	IA	Wholesale Trade (50-51)	On-Site Assistance	IWRC
Brooklyn	Poweshiek	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Grinnell	Poweshiek	IA	Manufacturing (20-39)	Air Assistance	IWRC
Montezuma	Poweshiek	IA	Manufacturing (20-39)	Air Assistance	IWRC
Early	Sac	IA	Manufacturing (20-39)	Air Assistance	IWRC
Bettendorf	Scott	IA	Manufacturing (20-39)	Air Assistance	IWRC
Blue Grass	Scott	IA	Manufacturing (20-39)	Air Assistance	IWRC

8. Client and Project Summary
University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
Davenport	Scott	IA	Wholesale Trade (50-51)	Air Assistance	IWRC
Davenport	Scott	IA	Construction (15-17)	Air Assistance	IWRC
Davenport	Scott	IA	Manufacturing (20-39)	Air Assistance	IWRC
Davenport	Scott	IA	Public Administration (91-97)	Air Assistance	IWRC
Davenport	Scott	IA	Services (70-89)	Air Assistance	IWRC
Davenport	Scott	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Davenport	Scott	IA	Services (70-89)	On-Site Assistance	IWRC
Davenport	Scott	IA	Wholesale Trade (50-51)	On-Site Assistance	IWRC
Eldridge	Scott	IA	Manufacturing (20-39)	Air Assistance	IWRC
Le Claire	Scott	IA	Manufacturing (20-39)	Air Assistance	IWRC
Harlan	Shelby	IA	Agriculture, Forestry, and Fishing (01-09)	Air Assistance	IWRC
Harlan	Shelby	IA	Mining (10-14)	Air Assistance	IWRC
Harlan	Shelby	IA	Wholesale Trade (50-51)	On-Site Assistance	IWRC
Rock Valley	Sioux	IA	Manufacturing (20-39)	Air Assistance	IWRC
Ames	Story	IA	Manufacturing (20-39)	Air Assistance	IWRC
Ames	Story	IA	Construction (15-17)	Air Assistance	IWRC
Ames	Story	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Huxley	Story	IA	Services (70-89)	On-Site Assistance	IWRC
Nevada	Story	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Nevada	Story	IA	Construction (15-17)	Air Assistance	IWRC
Nevada	Story	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Creston	Union	IA	Services (70-89)	Air Assistance	IWRC
Creston	Union	IA	Services (70-89)	On-Site Assistance	IWRC
Eddyville	Wapello	IA	Manufacturing (20-39)	Air Assistance	IWRC
Ottumwa	Wapello	IA	Services (70-89)	On-Site Assistance	IWRC
Ottumwa	Wapello	IA	Wholesale Trade (50-51)	On-Site Assistance	IWRC
Ottumwa	Wapello	IA	Services (70-89)	Air Assistance	IWRC
Indianola	Warren	IA	Services (70-89)	On-Site Assistance	IWRC
Indianola	Warren	IA	Services (70-89)	Air Assistance	IWRC
Lacona	Warren	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Washington	Washington	IA	Manufacturing (20-39)	Air Assistance	IWRC
Allerton	Wayne	IA	Manufacturing (20-39)	Air Assistance	IWRC
Fort Dodge	Webster	IA	Retail Trade (52-59)	Air Assistance	IWRC
Fort Dodge	Webster	IA	Wholesale Trade (50-51)	On-Site Assistance	IWRC
Fort Dodge	Webster	IA	Wholesale Trade (50-51)	On-Site Assistance	IWRC
Fort Dodge	Webster	IA	Manufacturing (20-39)	Air Assistance	IWRC
Fort Dodge	Webster	IA	Services (70-89)	On-Site Assistance	IWRC
Fort Dodge	Webster	IA	Services (70-89)	Air Assistance	IWRC
Fort Dodge	Webster	IA	Services (70-89)	On-Site Assistance	IWRC

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
Buffalo Center	Winnebago	IA	Wholesale Trade (50-51)	On-Site Assistance	IWRC
Lake Mills	Winnebago	IA	Manufacturing (20-39)	Air Assistance	IWRC
Lake Mills	Winnebago	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Sergeant Bluff	Woodbury	IA	Manufacturing (20-39)	On-Site Assistance	IWRC
Sioux City	Woodbury	IA	Services (70-89)	On-Site Assistance	IWRC
Sioux City	Woodbury	IA	Services (70-89)	On-Site Assistance	IWRC
Sioux City	Woodbury	IA	Services (70-89)	Air Assistance	IWRC
Kensett	Worth	IA	Wholesale Trade (50-51)	On-Site Assistance	IWRC
Manly	Worth	IA	Wholesale Trade (50-51)	Air Assistance	IWRC
Shellsburg	Benton	IA	Photography	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Homebased Bakery	Start-up	JPEC
Cedar Falls	Black Hawk	IA	E-commerce	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Import/Export	Start-up	JPEC
Cedar Falls	Black Hawk	IA	E-commerce	Start-up	JPEC
Cedar Falls	Black Hawk	IA	E-commerce	Start-up	JPEC
Cedar Falls	Black Hawk	IA	E-commerce	Start-up	JPEC
Cedar Falls	Black Hawk	IA	E-commerce	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Trucking	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Media	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Accounting	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Financial Planning	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Real Estate	Start-up	JPEC
Cedar Falls	Black Hawk	IA	E-commerce	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Import/Export	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Manufacturing	Start-up	JPEC
Cedar Falls	Black Hawk	IA	E-commerce	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Real Estate	Start-up	JPEC
Cedar Falls	Black Hawk	IA	E-commerce	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Music	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Information Technology	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Homebased Catering	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Monogramming/Embroidery	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Recording Studio	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Home Inspection	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Art	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Retail	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Retail	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Gym	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Manufacturing	Start-up	JPEC

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
Cedar Falls	Black Hawk	IA	Public Relations	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Restaurant	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Cemetery	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Human Resources	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Real Estate	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Web Design	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Veterinary	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Bar	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Restaurant	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Manufacturing	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Retail	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Restaurant	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Photography	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Accounting	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Restaurant	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Restaurant	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Financial Services	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Funeral Business	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Retail	Start-up	JPEC
Cedar Falls	Black Hawk	IA	E-commerce	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Import/Export	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Construction	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Restaurant	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Import/Export	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Interior Design	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Graphic Design	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Trucking	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Personal Training	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Fundraising	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Highway Rest Stops	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Bed & Breakfast	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Retail	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Art Retail	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Computer Consulting	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Real Estate	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Publishing Company	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Homebased Bakery	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Restaurant	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Sales	Start-up	JPEC

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
Cedar Falls	Black Hawk	IA	Phone Service	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Restaurant	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Gym	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Retail	Start-up	JPEC
Cedar Falls	Black Hawk	IA	E-commerce	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Marketing	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Finance	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Financial Planning	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Martial Artsw	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Software	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Homebased Business	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Construction	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Software	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Retail	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Software	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Personal Training	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Advertising	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Human Resources	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Restaurant	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Personal Service	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Massage Therapy	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Public Relations	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Retail	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Imports	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Sales	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Technology	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Online Networking	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Non-profit	Start-up	JPEC
Cedar Falls	Black Hawk	IA	E-commerce	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Health Club	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Advertising	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Travel Agency	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Manufacturing	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Bounty Hunting	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Daycare	Start-up	JPEC
Cedar Falls	Black Hawk	IA	Biotechnology	Start-up	JPEC
Cedar Falls/Waterloo	Black Hawk	IA	Residential Painting	Start-up	JPEC
Evansdale	Black Hawk	IA	Taxidermy	Start-up	JPEC
Waterloo	Black Hawk	IA	Exercise Science	Start-up	JPEC

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
Waterloo	Black Hawk	IA	Retail	Start-up	JPEC
Sumner	Bremer	IA	Economic Development	Start-up	JPEC
Independence	Buchanan	IA	Software	Start-up	JPEC
Grundy Center	Grundy	IA	Farming	Start-up	JPEC
Reinbeck	Grundy	IA	Farming	Start-up	JPEC
Garner	Hancock	IA	Website Development	Start-up	JPEC
Ft. Madison	Lee	IA	E-commerce	Start-up	JPEC
Clarinda	Page	IA	Correctional Facility	Start-up	JPEC
Urbandale	Polk	IA	Information Technology	Start-up	JPEC
Corydon	Wayne	IA	Manufacturing	Start-up	JPEC
Dublin		OH	Franchising	Start-up	JPEC
John Deere Waterloo Works	Black Hawk	IA	Foundry, Metal Casting	Technical Assistance	MCC
Roskamp	Black Hawk	IA	Foundry, Metal Casting	Consulting	MCC
Viking Pump, Inc - Cedar Falls	Black Hawk	IA	Foundry, Metal Casting	Technical Assistance	MCC
Plastic Professionals	Cass	IA	Foundry, Metal Casting	Consulting	MCC
Progress Foundry	Chickasaw	IA	Foundry, Metal Casting	Technical Assistance	MCC
Sivier Steel Casting	Scott	IA	Foundry, Metal Casting	Technical Assistance	MCC
Clow Valve	Mahaska	IA	Foundry, Metal Casting	Technical Assistance	MCC
AY McDonald	Dubuque	IA	Foundry, Metal Casting	Technical Assistance	MCC
GMT	Bremer	IA	Foundry, Metal Casting	Technical Assistance	MCC
Wellman Dynamics / Fansteel	Union	IA	Foundry, Metal Casting	Technical Assistance	MCC
Benton Castings	Benton	IA	Foundry, Metal Casting	Technical Assistance	MCC
University of Iowa	Johnson	IA	Foundry, Metal Casting	Technical Assistance	MCC
Iowa State University	Story	IA	Foundry, Metal Casting	Technical Assistance	MCC
American Colloid Co	Blackhawk	IA	Foundry, Metal Casting	Technical Assistance	MCC
Bentonite Performance Materials	Blackhawk	IA	Foundry, Metal Casting	Technical Assistance	MCC
Bender Foundry Service	Keokuk	IA	Foundry, Metal Casting	Technical Assistance	MCC
Clear Creek	Black Hawk	IA	Manufacturing	Materials Testing	MIS
Standard Golf	Black Hawk	IA	Manufacturing	Materials Testing	MIS
City Carton Recycling	Johnson	IA	Recycling Products	Materials Testing	MIS
Greystone Manufacturing	Scott	IA	Manufacturing	Materials Testing	MIS
Cedar Falls City Parks & Trails - CF	Black Hawk	IA	Manufacturing	Testing/Research	NABL
UNI Metal Casting Center - CABB	Black Hawk	IA	Manufacturing	Testing/Research	NABL
Viking Pump	Black Hawk	IA	Manufacturing	Testing/Research	NABL
Environmental Lubricants Manufacturing - Plainfield	Bremer	IA	Manufacturing	Testing/Research	NABL
Iowa DOT- Waverly	Bremer	IA	Public Works	Testing/Research	NABL
Waverly City Parks - Waverly	Bremer	IA	Public Works	Testing/Research	NABL
Hawkeye Tool & Die	Buchanan	IA	Metalworking	Testing/Research	NABL

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
Iowa Northern Railroad	Butler	IA	Railroad	Testing/Research	NABL
Renewable Energy Group	Carroll	IA	Biodiesel	Testing/Research	NABL
Golden Grain Energy, LLC	Cerro Gordo	IA	Ethanol	Testing/Research	NABL
Compass Instruments	Kane	IL	Instrumentation	Testing/Research	NABL
Falex	Kane	IL	Instrumentation	Testing/Research	NABL
TIG Distributing	Marshall	IA	Packaging	Testing/Research	NABL
Milwaukee School of Engineering	Milwaukee	MI	Education	Testing/Research	NABL
Norfolk Southern Railroad	Norfolk City	VA	Railroad	Testing/Research	NABL
Barton Solvents	Polk	IA	Chemicals	Testing/Research	NABL
Shimadzu	Polk	IA	Instrumentation	Testing/Research	NABL
Iowa State University: Office of Biorenewable Programs	Story	IA	Research	Testing/Research	NABL
Celebrating Entrepreneurship	Black Hawk	IA		National Entrepreneurship Week Event	RBC/SBDC
CF City Council Working Session	Black Hawk	IA		Entreprenership Education Training	RBC/SBDC
Ebay Basics	Black Hawk	IA		Entrepreneurship Training	RBC/SBDC
FastTrac Training	Black Hawk	IA		Entrepreneurship Training	RBC/SBDC
FastTrac Training	Black Hawk	IA		Entrepreneurship Training	RBC/SBDC
FastTrac Training	Black Hawk	IA		Entrepreneurship Training	RBC/SBDC
FastTrac Training	Black Hawk	IA		Entrepreneurship Training	RBC/SBDC
FastTrac Training	Black Hawk	IA		Entrepreneurship Training	RBC/SBDC
FastTrac Training	Black Hawk	IA		Entrepreneurship Training	RBC/SBDC
FastTrac Training	Black Hawk	IA		Entrepreneurship Training	RBC/SBDC
Financial Basics	Black Hawk	IA		Entrepreneurial Educational Workshop	RBC/SBDC
Financial Basics FastTrac	Black Hawk	IA		Entrepreneurial Educational Training	RBC/SBDC
Financial Basics II FastTrac	Black Hawk	IA		Entrepreneurial Educational Training	RBC/SBDC
Growth Opportunities & Market Research Fast Trac	Black Hawk	IA		Entrepreneurial Educational Training	RBC/SBDC
KBBG Public Presentation	Black Hawk	IA	Retail/Manufacturing/Service/Tech	MyEntreNet Presentation	RBC/SBDC
KBBG Public Presentation	Black Hawk	IA		MyEntreNet Presentation	RBC/SBDC
KBBG Public Presentation	Black Hawk	IA		MyEntreNet Presentation	RBC/SBDC
KUNI Public Presentation	Black Hawk	IA		Introduction of the MyEntreNet Program	RBC/SBDC
Main Street Waterloo MyEntreNet Overview	Black Hawk	IA		Introduction of the MyEntreNet Program	RBC/SBDC
Making Strategic Marketing Decision FastTrac	Black Hawk	IA		Entrepreneurial Educational Training	RBC/SBDC
Micro-Enterprise	Black Hawk	IA		Entrepreneurial Educational Workshop	RBC/SBDC
Micro-Enterprise and Fast Trac Graduation	Black Hawk	IA		Networking Event	RBC/SBDC
Mini Business Expo FastTrac Graduation	Black Hawk	IA		Entrepreneurship Training	RBC/SBDC

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
MyEntreNet Kickoff	Black Hawk	IA		Entrepreneurship Training	RBC/SBDC
MYEntreNet Presentation at Neighborhood Hub Comm. Meal	Black Hawk	IA	Retail/Manufacturing/Service/Technology	Introduction of the MyEntreNet Program	RBC/SBDC
MyEntreNet Presentation to Iowa Voc Rehab Services	Black Hawk	IA	Education	Entrepreneurship Basics	RBC/SBDC
Navigator Training	Black Hawk	IA		Navigator Training	RBC/SBDC
Opportunity Works MYE Overview	Black Hawk	IA		MyEntreNet Presentation	RBC/SBDC
Planning to Move Forward	Black Hawk	IA		Entrepreneurial Educational Workshop	RBC/SBDC
Presentation to NE Iowa Ind. Auto Repair - MYE Overview	Black Hawk	IA		MyEntreNet Presentation	RBC/SBDC
RBC Bankers Meeting	Black Hawk	IA		Micro-Loan Development Planning Session	RBC/SBDC
Rural Entrepreneurship Roundtable	Black Hawk	IA	Economic Development	Entrepreneurial Service Providers Training	RBC/SBDC
Sizing Up Your Business Cont.- FastTrac	Black Hawk	IA		Entrepreneurial Educational Training	RBC/SBDC
Sizing Up Your Business- FastTrac	Black Hawk	IA		Entrepreneurial Educational Training	RBC/SBDC
Smart Start - Waterloo MYE	Black Hawk	IA		Entrepreneurial Educational Workshop	RBC/SBDC
Smart Start Workshop	Black Hawk	IA	Retail/Manufacturing/Service/Technology	Entrepreneurial Educational Workshop	RBC/SBDC
Smart Start Workshop	Black Hawk	IA		Entrepreneurial Educational Workshop	RBC/SBDC
Smart Start Workshop	Black Hawk	IA		Entrepreneurial Educational Workshop	RBC/SBDC
Smart Start Workshop	Black Hawk	IA		Entrepreneurial Educational Workshop	RBC/SBDC
Smart Start Workshop	Black Hawk	IA		Entrepreneurial Educational Workshop	RBC/SBDC
Smart Start Workshop	Black Hawk	IA		Entrepreneurship Training	RBC/SBDC
Smart Start Workshop	Black Hawk	IA		Entrepreneurial Educational Workshop	RBC/SBDC
UNI Non Business Majors Entrepreneur Class	Black Hawk	IA		Entrepreneurship Basics	RBC/SBDC
Waterloo - Waterloo FT	Black Hawk	IA		SWOT Analysis and overview of Fast Trac	RBC/SBDC
Waterloo MYE Community Discussion	Black Hawk	IA		Facilitated discussion among services provider	RBC/SBDC
Waterloo MYE Kickoff: Expansion Strategies	Black Hawk	IA		Expansion Strategies	RBC/SBDC
Waterloo MYE Kickoff: Smart Start	Black Hawk	IA		Start Up Session	RBC/SBDC
Waterloo MYE: Task Force Training and Planning Session	Black Hawk	IA		Review of MyEntreNet Plan	RBC/SBDC
Waterloo MyEntreNet Task Force Meeting	Black Hawk	IA		Review of MyEntreNet Plan	RBC/SBDC
Waterloo MyEntreNet Kickoff	Black Hawk	IA		Kickoff of Waterloo MYE	RBC/SBDC
Oelwein City Council Training	Buchanan	IA		Entrepreneurship Training for Oelwein City C	RBC/SBDC
Carroll County Task Force	Carroll	IA	Muncipality	Review of MyEntreNet Plan	RBC/SBDC
Carroll Entrepreneurship Assocation MYE Training	Carroll	IA		Introduction of the MyEntreNet Program	RBC/SBDC
Navigator Training	Carroll	IA		Navigator Training	RBC/SBDC

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
Annual Deb Dalziel Entreprenership Awards	Chickasaw	IA		Keynote Presentation	RBC/SBDC
Clayton County Networking event wheres the money	Clayton	IA		Networking Event and Entrepreneurial Edcatic	RBC/SBDC
Entrepreneurship Service provider review	Clayton	IA		MyEntreNet Region Service Provider Training	RBC/SBDC
Exploring Entrepreneurship	Clayton	IA		Entrepreneurial Educational Workshop	RBC/SBDC
Fast Trac Kick Off	Clayton	IA		Networking Event and Entrepreneurial Edcatic	RBC/SBDC
Marketing Your Business' Image	Clayton	IA		Entrepreneurial Educational Workshop	RBC/SBDC
MYE Mixer in Elkader	Clayton	IA		Networking Event	RBC/SBDC
MYE Mixer in Guttenberg	Clayton	IA		Networking Event and Entrepreneurial Edcatic	RBC/SBDC
MYE Mixer in McGregor	Clayton	IA		Networking Event	RBC/SBDC
MYE Mixer in Monona	Clayton	IA		Networking Event	RBC/SBDC
MyEntrenet Instruction and Navigation	Clayton	IA		Entrepreneurial Educational Workshop	RBC/SBDC
Smart Start Workshop	Clayton	IA		Entrepreneurial Educational Workshop	RBC/SBDC
Decatur County Business Assistance Planning	Decatur	IA		Review of MyEntreNet Plan	RBC/SBDC
Decatur County DC Board	Decatur	IA	Retail/Manufacturing/Service/Technology	Introduction of the MyEntreNet Program	RBC/SBDC
Decatur County Smart Start	Decatur	IA		Entrepreneurial Educational Workshop	RBC/SBDC
Decatur County Task Force Training	Decatur	IA		Review of MyEntreNet Plan	RBC/SBDC
Developing an online presence	Decatur	IA		Entrepreneurial Educational Workshop	RBC/SBDC
Ebay Workshop for Decatur County	Decatur	IA		Entrepreneurial Educational Workshop	RBC/SBDC
Fast Trac	Decatur	IA		Entrepreneurial Educational Training	RBC/SBDC
MyEntrenet Navigator Training	Decatur	IA		Navigator Training	RBC/SBDC
Navigator Training	Decatur	IA		Navigator Training	RBC/SBDC
Navigator Training Session	Decatur	IA		Navigator Training	RBC/SBDC
NE Iowa Developers Smart Start Training	Fayette	IA		Train the Trainer- NE Iowa Economic Develop	RBC/SBDC
Starmont High School Entrepreneurship Summit - Fayette Co.	Fayette	IA		Entrpreneurship Summit including tours of bus	RBC/SBDC
Grundy County Client Strategic Counseling	Grundy	IA		MyEntreNet Region Service Provider Training	RBC/SBDC
Howared County Economic Development Corporation Annual Dinner	Howard	IA		Keynote Presentation	RBC/SBDC
Marketing Your Business' Image	Howard	IA		Marketing image class in Clayton County as p	RBC/SBDC
Entrepreneurial Fair	Jasper	IA		Networking Event	RBC/SBDC
Entrepreneurs Panel - Newton	Jasper	IA		Newton	RBC/SBDC
FastTrac Training on MYE	Jasper	IA		Entrepreneurship Training	RBC/SBDC
FastTrac Training on MYE	Jasper	IA		Entrepreneurship Training	RBC/SBDC

8. Client and Project Summary

University of Northern Iowa
Service to Iowa
Fiscal Year 2007

Community or Business	County	State	Industry	Counseling Provided	Program
Jasper County Kick Off	Jasper	IA		New MyEntreNet Region Kick Off	RBC/SBDC
Jasper County Listening Post	Jasper	IA		Needs Assessment	RBC/SBDC
Jasper County MyEntrenet Annoucement	Jasper	IA		Press Event	RBC/SBDC
Marshalltown Entrepreneurship Symposium	Jasper	IA		Keynote Presentation	RBC/SBDC
Marion County Business Assistance Planning	Marion	IA		Review of MyEntreNet Plan	RBC/SBDC
Marion County Listening Post	Marion	IA		Needs Assessment	RBC/SBDC
Marion County Listening Post	Marion	IA		Entrepreneurial Educational Workshop	RBC/SBDC
Marion County Listening Post	Marion	IA		Needs Assessment	RBC/SBDC
Marion County Smart Growth	Marion	IA		Entrepreneurial Educational Workshop	RBC/SBDC
Marion County Smart Start	Marion	IA		Entrepreneurial Educational Workshop	RBC/SBDC
Marion County Smart Start	Marion	IA		Entrepreneurial Educational Workshop	RBC/SBDC
MyEntrenet Instruction and Navigation	Marion	IA		Entrepreneurship Training	RBC/SBDC
MyEntreNet: A Four Point Approach to Rural Revitalization	Marion	IA		Renew Rural Iowa Entrepreneurship Seminar	RBC/SBDC
Iowa Legislature Economic Development Committee Meeting	Polk	IA		MyEntreNet Rural Entrepreneurship Developn	RBC/SBDC
Fast Trac	Poweshiek	IA		Entrepreneurial Educational Training	RBC/SBDC

Service to Iowa

	County Specific	Statewide	Total
Adair	4	17	21
Adams	2	17	19
Allamakee	7	17	24
Appanoose	6	17	23
Audubon	2	17	19
Benton	25	17	42
Black Hawk	228	17	245
Boone	6	17	23
Bremer	55	17	72
Buchanan	26	17	43
Buena Vista	4	17	21
Butler	25	17	42
Calhoun	3	17	20
Carroll	5	17	22
Cass	2	17	19
Cedar	3	17	20
Cerro Gordo	17	17	34
Cherokee	4	17	21
Chickasaw	12	17	29
Clarke	3	17	20
Clay	6	17	23
Clayton	10	17	27
Clinton	10	17	27
Crawford	2	17	19
Dallas	13	17	30
Davis	4	17	21
Decatur	4	17	21
Delaware	9	17	26
Des Moines	9	17	26
Dickinson	6	17	23
Dubuque	12	17	29
Emmet	4	17	21
Fayette	28	17	45
Floyd	5	17	22
Franklin	10	17	27
Fremont	1	17	18
Greene	5	17	22
Grundy	18	17	35
Guthrie	1	17	18
Hamilton	2	17	19
Hancock	7	17	24
Hardin	12	17	29
Harrison	1	17	18
Henry	8	17	25
Howard	6	17	23
Humboldt	5	17	22
Ida	4	17	21
Iowa	8	17	25
Jackson	9	17	26
Jasper	8	17	25
Jefferson	4	17	21
Johnson	13	17	30

Jones	11	17	28
Keokuk	8	17	25
Kossuth	9	17	26
Lee	6	17	23
Linn	35	17	52
Louisa	2	17	19
Lucas	4	17	21
Lyon	2	17	19
Madison	1	17	18
Mahaska	11	17	28
Marion	5	17	22
Marshall	8	17	25
Mills	1	17	18
Mitchell	6	17	23
Monona	1	17	18
Monroe	3	17	20
Montgomery	1	17	18
Muscatine	18	17	35
O'Brien	1	17	18
Osceola	0	17	17
Page	4	17	21
Palo Alto	4	17	21
Plymouth	2	17	19
Pocahontas	0	17	17
Polk	33	17	50
Pottawattamie	3	17	20
Poweshiek	12	17	29
Ringgold	1	17	18
Sac	4	17	21
Scott	19	17	36
Shelby	9	17	26
Sioux	15	17	32
Story	19	17	36
Tama	27	17	44
Taylor	2	17	19
Union	3	17	20
Van Buren	1	17	18
Wapello	5	17	22
Warren	2	17	19
Washington	6	17	23
Wayne	5	17	22
Webster	6	17	23
Winnebago	8	17	25
Winneshiek	11	17	28
Woodbury	9	17	26
Worth	5	17	22
Wright	4	17	21
	1035	1683	2718
Multi-County	4		
Statewide	17		
	1056		

SECRETARY OF STATE

MICHAEL A. MAURO
SECRETARY OF STATE

LUCAS BUILDING, 1ST FLOOR
DES MOINES, IA 50319

OFFICE OF THE IOWA SECRETARY OF STATE

December 26, 2007

Ms. Susan Crowley
Legislative Services Agency

Dear Ms. Crowley,

I hereby submit the attached report, as required by HF 911, regarding the $2,000,000 appropriated to reimburse counties for the cost of complying with section 52.7, subsection 1, paragraph "1" of SF 369, the "paper trail" bill.

I am submitting this report based on the funding that we currently have ($2,000,000) which was provided by the Legislature and approved by the Governor. If the situation changes and additional funding is provided, it is my belief that we can have the entire state on one voting system - an optical scanner with a ballot marking device. However, time is of the essence and any further funding decisions need to be made expeditiously.

All counties were required to submit a declaration to the Secretary of State by June 15, 2007, declaring the method by which the county intends to comply with SF 369. All 69 counties who do not currently have a full paper trail system filed declarations by that date. Of the 69 counties, 60 opted to purchase the VVPAT attachment for their Direct Record Electronic (DRE) units and 9 opted to purchase Automark ballot marking devices.

As of today, the Automark is not certified for use in conjunction with Premier (formerly Diebold) equipment. Eight of the nine counties choosing Automark are Premier customers. Certification of the equipment is expected soon.

The original version of a VVPAT for Premier equipment is certified federally and in Iowa. The newer version is not yet certified. While it is hoped that the newer, more user-friendly version will be certified in time for use in November of 2008, there is no guarantee. However, counties can still purchase the original version. ES&S has one certified version of VVPAT for those three counties with ES&S equipment.

Using the $2,000,000 funding that was appropriated in the last session, there is enough funding to fully pay for VVPAT for all of the counties that declared by June 15, 2007 their intention to meet the requirements of the law by purchasing VVPAT.

In addition, there will be enough funding to partially pay for the nine (9) counties that declared by June 15, 2007 they intended to meet the requirements of the law by purchasing an Automark ballot marking device. The remainder of the $2,000,000, after paying for the VVPATS, will cover about half of the cost of the Automarks.

Please let me know if you have any questions.

Sincerely,

Michael A. Mauro

Michael A. Mauro
Iowa Secretary of State

Attachments
cc: Senator Jeff Danielson
Senator Staci Appel
Senator James F. Hahn
Representative Bruce Hunter
Representative Doris Kelley
Representative Dwayne Alons

Paper Trail Funding REPORT

Counties were required to file a declaration by June 15th with the SOS declaring how they intended to comply with the law requiring a paper trail by November 2008.

Current status of Counties' equipment:

- ✓ **24 Counties have Automark and need no funding = 24**
- ✓ **6 Counties have VVPAT and need no funding = 6**
- ✓ **60 Counties will purchase VVPAT for their DRE's = 60**
- ✓ **9 Counties will purchase Automarks instead of VVPAT = 9**

99

Counties required to purchase equipment to comply with SF 369: 69

VVPAT:

Premier (Diebold) Counties choosing VVPAT @ $600 per VVPAT unit = **57 Counties**
ES&S Counties choosing VVPAT @ $1200 per VVPAT unit = **3 Counties**

Counties Purchasing VVPAT = 60

AUTOMARK:

Premier (Diebold) Counties choosing Automark @ $6450 per unit = **8**
ES&S Counties choosing Automark @ $6450 per unit = **1**

Counties Purchasing AUTOMARK = 9

PROPOSED FUNDING:

The Secretary of State received $2,000,000 in appropriations from the legislature last year to help counties comply with the law requiring a voter verifiable paper audit trail by November, 2008. This amount does not cover the entire cost of the equipment.

VVPAT units for DRE's

Premier (Diebold) equipment: 1,198 units @ $600 each =	**$718,800**
ES&S equipment: 122 units @ $1200 each =	**146,400**
TOTAL	**$865,200**

The Secretary recommends full funding for the counties declaring to purchase a VVPAT attachment for DRE machines.

Automark units to replace DRE's
Eight (8) Premier (Diebold) counties and one (1) ES&S county with a total of
351 units @ $6450 per unit = **TOTAL** **$2,263,950**

FUNDING FROM STATE		**$2,000,000**
VVPAT cost		**865,200**
	Balance	**$1,134,800**

Cost of Automarks for nine counties	**$2,263,950**
State funding available to Automark counties	**1,134,800**
Amount to be paid by counties opting for Automark	**$1,129,150**

$1,129,150 divided by 351 units = $3,217 per unit

Counties choosing Automark equipment will pay about half the cost of the Automarks from county funds.

SUMMARY

Of the $2,000,000 funding provided by the legislature in the 2007 session for counties to comply with SF 369, $865,200 can be used to bring 60 counties into compliance, and $1,134,800 can be used to bring nine (9) counties into compliance, provided those nine counties pay half the cost of the Automarks for their respective counties.

PAPER TRAIL FUNDING PROGRAM

Pursuant to SF 369 adopted in May, 2007

The 82nd Iowa General Assembly adopted legislation requiring every that voting system employed in the state provide a voter-verifiable paper trail for all elections held on or after November 4, 2008. The legislature allocated two million dollars ($2,000,000) to be used to assist counties in purchasing voting equipment or voting equipment attachments to comply with the law. Funding for the paper trail equipment for the counties will be processed through the Secretary of State's office as outlined in this document.

CURRENT VOTING SYSTEMS IN IOWA

There are currently two voting machine vendors certified to sell equipment in Iowa, Election Systems and Software (hereafter known as ES&S) and Diebold Elections Systems, which has recently changed the name of the voting equipment division of the Diebold Corporation to Premier Election Systems, (hereafter known as Premier).

There are currently three (3) configurations of equipment used in the state:

1. Precinct Count Optical Scan System with Direct Record Electronic Device (DRE) for Accessibility.

Both ES&S and Premier offer this type of system. A paper ballot is marked by the voter and inserted into a scanner at the precinct and counted by the scanner. Voters who require a machine that offers accessibility may use the DRE, which offers audio ballots and other alternative methods of voting.

Counties using the Optical Scan/DRE configuration include

50 counties with Premier equipment and 9 counties with ES&S equipment.

TOTAL: 59 counties

2. DRE system.

Both ES&S and Premier offer DRE systems. All machines in each precinct are direct record electronic machines, also known as touch-screen machines. Voters touch the screen next to their choices and the DRE stores the votes in its memory. The DREs also include an accessibility function with audio ballots and alternative methods of voting.

Counties using all DRE machines in their precincts include 17 counties with Premier equipment and 2 counties with ES&S equipment.

TOTAL: 19 counties

3. Precinct Count Optical Scan System with Ballot Marking Device for Accessibility.

ES&S is the only company certified to sell the ballot marking device at this time. However, Premier is in the process of being certified to also sell the ballot marking device known as "Automark". All voters are given the same paper ballot and all paper ballots are scanned and read by the same optical scan unit. Voters who need accessibility functions insert their ballots into the ballot marking device, and touch their choices, which are marked by the device. The ballot is removed from the device and inserted into the precinct scanner for counting.

There are 21 counties using ES&S optical scan with ballot marking devices.

TOTAL: 21

Requirements for Purchasing Equipment to Comply with SF 369

Eligibility:

- Counties that own direct record electronic voting machines as of May 29, 2007, that do not provide a paper record for voter review, are eligible for funding under this program
- Counties that do not own any equipment as of May 29, 2007, are eligible for funding under this rule and are required by law to purchase ballot marking devices to comply with 2007 Acts, SF 369
- Counties that own a voting system as of May 29, 2007, that uses either a ballot marking device or a paper record device are not eligible for funding under this program

Certification

- All equipment purchased under this program must be certified by the Board of Examiners for Voting Machines and Electronic Voting Systems pursuant to Iowa Code section 52

Declaration of Intention

- County Boards of Supervisors must pass a resolution on or before June 15, 2007, declaring the method by which the county intends to comply, and file the resolution with the Secretary of State

Initial Reimbursement Amount

- After June 15, 2007, the Secretary of State shall determine the initial reimbursement amount for each county based upon the following considerations:

a. The number of noncompliant DREs owned by the county on May 29, 2007;
b. The actual cost of purchasing one paper record device for each DRE owned by the county on May 29, 2007;
c. For counties that do not own equipment, the number of precincts in the county as of May 29, 2007

Conditions for reimbursement

- The Secretary of State shall not provide funds for any county that fails to file the required resolution by or, if applicable, an amended declaration by December 1, 2007

- After the declaration is filed, the board of supervisors of a county may amend the board's declaration only under the following circumstances:

    a. The specific device selected in the declaration of intention is not certified with the county's primary voting system for use in Iowa by December 1, 2007
    b. The specific device selected in the declaration of intention is not available for purchase by December 1, 2007

Process

The goal of the Secretary of State is to ensure that all counties comply with the law which requires every county to have a paper trail.

Towards that goal, the Secretary intends to fully fund the purchase of a voter verified paper audit (VVPAT) trail attachment for DRE equipment for any county that chooses that option, since the VVPAT is about one-tenth the cost of the ballot marking device.

Counties who wish to purchase the ballot marking device to comply with the law will be partially funded, using any funds left from the $2,000,000 allocation after funding the counties who chose VVPAT.

REIMBURSEMENT FOR PURCHASE OF BALLOT MARKING DEVICES

Request to draw funds

After the county has paid for the necessary equipment, the board of supervisors may apply for reimbursement. Each application shall include all of the following documents:

a. A receipt from the vendor from whom the equipment was purchased showing the purchase price, a description of each item purchased, and the date upon which the vendor received payment from the county.

b. Documentation of any moneys received by the county or deducted from the purchase price for a trade-in on equipment replaced as part of the transaction

Definitions:

a. "Cost to County" means the total cost of the electronic ballot marking devices after subtracting the amount of any trade-in allowance from the vendor
b. "Amount of Remaining Funds" means the result determined by subtracting the amount of the initial reimbursement payments made to counties purchasing VVPATs, from the $2,000,000 appropriated for this program
c. "Final Reimbursement Amount" means the amount determined by dividing the number of precincts in all

counties choosing ballot marking devices in the amount of remaining funds

d. "Adjustment". If the cost to any county is less than the final reimbursement amount based on the calculations in paragraph "*b*", the county shall receive only the amount of the actual cost to the county. Any additional funds will be reallocated to other counties purchasing balloting marking devices.

Report to Joint Appropriations Committee

On or before December 31, 2007, the Secretary of State shall submit a report to the chairpersons and ranking members of the joint appropriations subcommittee on administration and regulation regarding the expenditures of the moneys appropriated in 2007 Acts, HF 911. The report shall also include recommendations, if necessary to the general assembly for enacting waiver provisions for counties unable to comply with the requirements of Iowa Code section 52.7, subsection 1, paragraph "*l*".

(2) The specific device selected in the declaration of intention is not available for purchase by December 1, 2007.

(3) A new product meeting the requirements of Iowa law is certified and is available.

22.32(5) *Application for reimbursement.* After the county has paid for the necessary equipment, the board of supervisors may apply for reimbursement. Each application shall include all of the following documents:

a. A receipt from the vendor from whom the equipment was purchased showing the purchase price, a description of each item purchased, and the date upon which the vendor received payment from the county.

b. Documentation of any moneys received by the county or deducted from the purchase price for a trade–in on equipment replaced as part of the transaction required to comply with Iowa Code section 52.7, subsection 1, paragraph *"l,"* as amended by 2007 Iowa Acts, Senate File 369.

22.32(6) *Initial reimbursement payments.* Upon receipt of the application for reimbursement required in subrule 22.32(5), the secretary of state shall reimburse the county the actual cost or the amount determined in the initial reimbursement established by the formula in subrule 22.32(3), whichever is less.

a. If the county selected either Option A or Option C, no further reimbursement will be made.

b. If the county selected either Option B or Option D, additional funds may be available based upon calculations after initial reimbursement payments have been calculated.

22.32(7) *Reimbursement for purchase of ballot–marking devices.*

a. Definitions.

(1) *"Cost to county"* means the total cost of the electronic ballot–marking devices after subtracting the amount of any trade–in allowance from the vendor.

(2) *"Amount of remaining funds"* means the result determined by subtracting the amount of the initial reimbursement payments made under subrule 22.32(6) from $2 million (the amount appropriated for this program).

b. Final reimbursement amount. The final reimbursement amount shall be determined by dividing the number of precincts in all counties choosing Option B and Option D into the amount of remaining funds.

c. Adjustment. If the cost to any county is less than the final reimbursement amount based on the calculations in paragraph *"b,"* the county shall receive only the amount of the actual cost to the county. The additional funds will be reallocated to the other counties choosing Option B or Option D.

22.32(8) *Report to the joint appropriations subcommittee.* On or before December 31, 2007, the secretary of state shall submit a report to the chairpersons and ranking members of the joint appropriations subcommittee on administration and regulation regarding the expenditures of the moneys appropriated in 2007 Iowa Acts, House File 911, section 1, subsection 13. The report shall also include recommendations, if necessary, to the general assembly for enacting waiver provisions for counties unable to comply with the requirements of Iowa Code section 52.7, subsection 1, paragraph *"l."*

22.32(9) *Federal funding.* If any federal funding is received by the secretary of state for the same or similar purposes as the state appropriation in 2007 Iowa Acts, House File 911, section 1, subsection 13, paragraph *"a,"* an amount of this state appropriation equal to the federal funding received, but not more than $2 million, shall revert to the rebuild Iowa infrastructure fund at the end of the state fiscal year in which the federal funding is received.

22.32(10) *Minimum payment.* Each eligible county will be entitled to receive at least the amount necessary to add the paper record device to all DREs owned by the county, or, in the case of counties that do not own equipment, the amount necessary to add one paper record device in each precinct within the county.

This rule is intended to implement 2007 Iowa Acts, House File 911, section 1, subsection 13.

721—22.32(52) Paper record requirement—reimbursement process. Counties currently using voting machines that do not produce an external paper record for review by the voter are required to make this feature available for all elections held on or after November 4, 2008. Funds are available to reimburse counties for the cost of compliance with this new requirement. The secretary of state will reimburse the counties by using the following procedures:

22.32(1) *Eligibility requirements.*

a. Counties that own direct recording electronic voting machines as of May 29, 2007, that do not provide a paper record for voter review are eligible for funding under this rule.

b. Counties that do not own any equipment as of May 29, 2007, are eligible for funding under this rule and are required to purchase ballot–marking devices to comply with 2007 Iowa Acts, Senate File 369.

c. Counties must file a declaration of intention with the secretary of state by June 15, 2007, as described in subrule 22.32(2), to be eligible for funding under this rule.

d. Counties that own a voting system as of May 29, 2007, that uses either a ballot–marking device or a paper record device are not eligible for funding under this rule.

22.32(2) *Declaration of intention.* On or before June 15, 2007, the county board of supervisors of each county shall submit to the office of secretary of state a resolution adopted by the board declaring the method by which the county intends to comply with Iowa Code section 52.7, subsection 1, paragraph *"l,"* as amended by 2007 Iowa Acts, Senate File 369. For counties eligible for reimbursement, the following options are available:

1. Option A. A county that uses only direct recording electronic (DRE) voting machines may add paper record printer attachments that are compatible with the county's current DRE voting machines. Full reimbursement funds are available from the state for this option.

2. Option B. A county that uses only direct recording electronic (DRE) voting machines may acquire an optical scan voting system with ballot–marking devices for accessibility. Only partial reimbursement funds for ballot–marking devices are available from the state for this option.

3. Option C. A county whose primary voting system is an optical scan system with direct recording electronic (DRE) voting machines for accessibility may add paper record printer attachments that are compatible with the county's current DRE voting machines. Full reimbursement funds are available from the state for this option.

4. Option D. A county whose primary voting system is an optical scan system with direct recording electronic (DRE) voting machines for accessibility may acquire ballot–marking devices to replace the DREs. Only partial reimbursement funds are available from the state for this option.

22.32(3) *Initial reimbursement amount.* After June 15, 2007, the secretary of state shall determine the initial reimbursement amount for each county based upon the following considerations:

a. The number of noncompliant DREs owned by the county on May 29, 2007.

b. The actual cost of purchasing one paper record device for each DRE owned by the county on May 29, 2007.

c. For counties that do not own equipment as of May 29, 2007, the number of precincts in the county.

22.32(4) *Conditions for reimbursement.*

a. The secretary of state shall not provide reimbursement funds to any county that fails to file the required declaration by June 15, 2007, or, if applicable, an amended declaration by December 1, 2007.

b. After the declaration is filed, the board of supervisors of a county may amend the board's declaration only under the following circumstances:

(1) The specific device selected in the declaration of intention is not certified with the county's primary voting system for use in Iowa by December 1, 2007.

STATE FAIR AUTHORITY

Iowa State Fair
P.O. BOX 57130 DES MOINES IOWA 50317-0003

CAPITAL IMPROVEMENTS
January 2008

1. **Agricultural Exhibition Center**

Budget: $ 10,905,000.00
Completion Date: Summer 2010

General Information:

- Approximate Square Footage – 85,000.00 fully climatized.
- 250' x 125' Arena Floor
- 140' x 80' Warm-up Arena
- Seating for 3500 to 4000 made up of both permanent and retractable seating.
- Interior and Exterior Vending Locations.
- Direct Connection to the Horse Barn.
- Potential Covered Connection to the 4-H Building.
- The building will be designed to support multiple functions ranging from livestock shows to concert type events.

Status:

- The project is in schematic design.
- Site work and installation of foundation systems to begin following the 2008 Fair.

2. **Southwest VI Parking and Substation**

Budget: $ 1,475,000.00
Completion Date: Spring 2008

General Information:

- Substation: Demolition of the existing electrical equipment and building. Facility will be reconstructed using new electrical equipment located at the southwest corner of the new parking area.

Status:

- Footings are complete and the building is ready to begin the installation of masonry. The mason will be on site to begin erecting scaffolding in the month of January.
- Bids for switch gear and voltage regulators have been taken and material has been ordered.

- Bidding documents are complete for the material and installation systems that will upgrade our existing electrical infrastructure.

General Information:

- Parking Area: Removal and relocation of temporary buildings and facilities to accommodate approximately 325 new parking stalls. The new parking will serve the Varied Industries Building and surrounding existing as well as future construction.

Status:

- The project is on hold until the frost comes out of the ground and the grade is workable.
- The underground work is approximately 95% complete.
- The contractor anticipates resuming work late February or early March, with the most significant issues being the ability to test both the subgrade and quality of materials used.
- Remaining project duration 30 days maximum.

3. **East 30th, Walnut St. and Logan St.**

Budget: $ 1,300,000.00
Completion Date: August 2008

General Information:

- Development of underground utilities and roads serving the southwest portion of the grounds. New paved surfaces will improve capabilities for bus related transportation to the grounds during the Fair as well as create the basic framework for additional future parking and gate facilities.

Status:

- Drawings are being developed to begin in the spring of 2008.
    - ISF is in the process of completing the purchase of the remaining property.
    - Metro Wrecking has been contacted to get pricing for the demolition of the structure(s).
- Consideration will need to be given to the layout of fencing, installation of new gates and ticket booths as this interim phase is completed.
- Work is scheduled to be complete by the 2008 Fair.

4. **Covered Arena**

Budget: $ 785,000.00
Completion Date: April 2008

General Information:

- The existing West Arena will be disassembled and reassembled in its new location between the Stalling Barn and the Swine Barn. (Approximate size: 120' x 240')
- Building will be elevated approximately 4'-0" above the existing height.
- New galvanized show ring fencing – permanent.
- Rigid sound absorbing panels will replace batt insulation.

- Existing steel frame will be reused – new metal roof and side wall panels.
- Color to match adjacent metal roofs. (green with white trim)
- Access to the arena will be provided from the east, west, north, and south.
- All work to be contracted with the exception of electrical.

Status:

- Foundations have been bid and construction started.
- Jensen (Concrete Contractor) anticipates completion of footings and foundations by January 18, 2008.
- Completion of the concrete flatwork will be reviewed following installation of the footings and foundations. (Ground heaters may need to be utilized to complete the work.)
- Steel, carpentry, metal roofing bid packages have been sent and out for bid and are due back by January 31, 2008.

5. **Covered Connection**

Budget: $ 600,000.00
Completion Date: To be determined

General Information:

- Provide an open air connection from the Stalling Barn to the Swine Barn. Construction assembly to include concrete columns sloped and flat roofs, steel and heavy timber. Construction will commence following completion of the Stalling Barn and surrounding roadways. (Presumably after the 2008 ISF.)

Status:

- Foundation drawings have been completed as part of the Covered Arena.
- Design development drawings are in progress.
- ISF anticipates completing majority of the work utilizing in-house staff.

6. **Practice Arena**

Budget: $ 30,000.00
Completion Date: April 2008

General Information:

Situated immediately north of the Covered Arena, the practice arena will serve as a warm up facility for various livestock. The arena will be left uncovered with a perimeter vinyl fence system.

Status:

- Rough grading complete – final grading and installation of new vinyl fencing to be complete by the Spring of 2008.

7. **Stalling Barn (Open air Barn)**

Budget: $ 2,900,000.00
Completion Date: August 2008

General Information:

- The new barn will help serve the expanding need for livestock stalling facilities for both interim events and Fair-time needs. The barn will act as a primary stalling location for shows utilizing the Covered Arena.
- Building Materials: concrete base, split face concrete block (brown), wood and steel beams, green metal seam metal on sloped roofs, EPDM on flat roofs, wood and metal decking, large circulating fans.
- Electrical work by ISF Staff.
- Restrooms and office area located at the west.
- Covered exterior wash racks at the east.
- Approximately 41,000 SF holding 190 +/- 10' x 10' horse stalls or 530 cattle ties spaced at 42" O.C.

Status:

- Concrete footings for the center roof space will be complete in the next two weeks. Perimeter footings and foundations to follow. (Work by ISF Staff)
- Concrete block masonry has been ordered.
- The following contracts have been bid: (Bids were received January 23, 2008)
    * Masonry
    * Steel Material
    * Steel Erection
    * Wood Material
    * Carpentry
    * Membrane Roofing
    * Sheet Metal Roofing
    * Mechanical
    * Plumbing
    * Fire Protection
- Electrical work to be completed by ISF Staff.
- Stalling systems for cattle are currently being bid along with materials to complete three (3) rows in the Baby Beef Barn. Results are expected by the end of January.
- Retaining walls along the east are anticipated to start early spring. (By ISF Staff)

8. **Tie Out Area**

Budget: $ 95,000.00
Completion Date: April 2008

General Information:

- Accommodate the relocated livestock control structure.
- Requires the relocation of cattle ties. Approximately 280 LF removed – replace with 320 LF.

Status:

- Rough grading is complete.
- The road connecting the new east camping to the Stalling Barn is complete.
- ISF to schedule the reconstruction of the Livestock Control Barn and ties. Weather conditions have delayed the start date.

9. **Camping (Relocated FS)**

Budget: $ 230,000.00
Completion Date: Spring 2008

General Information:

- Fenced perimeter for separation from campgrounds.
- Power and water will be provided to each site.
- The new area is anticipated to replace campsites previously located at the site of the Stalling Barn.

Status:

- Grading complete.
- Sod has been placed on the slopes to reduce erosion. Flat portions of the site will be seeded.
- ISF completed rough-in for electrical systems.
- Schedule for rough-in for water to be determined.
- The fencing between the camping and tie-outs will not be reconstructed.
- Road areas will be developed in the spring.
- Additional drive has been graded but will not be paved at this time.

10. **Ice House**

Budget: $ 575,000.00
Completion Date: August 2008

General Information:

- Reconstruction of the existing building previously located at the Covered Arena site.
- The new building will reuse existing steel from building demolition.
- Building size: Approximately 120' x 40' with covered dock area.
- New wall and roof panels.

Status: **(No Change in Status)**

- Rough grading of the site is complete.
- Reconstruction will not begin until Spring 2008.

11. **East Street Development**

Budget: $ 875,000.00
Completion Date: August 2008

General:

- Construction of underground utilities, roads and parking around the perimeter of the Stalling Barn, Covered Arena and Practice Arena.

Status:

- Bids for the limited scope site utilities and paving have been taken. (Scope includes underground work and paving between the Swine Barn and along the north portion of the jobsite, west of the Youth Inn.)
    - Utilities have been completed.
    - Approximately 75% of the road along the east side of the Swine Barn has been placed. Maintenance to review traffic routes before and during the Beef Expo and make any necessary temporary accommodations.
    - The balance of the limited scope contract to be complete as weather permits.
- Bids for the remaining underground utilities have been received and are currently under analysis. Construction will commence as weather permits.
- Documents to bid the remaining paving are in production and are expected to be completed no later than mid-February.

Iowa State Fair
Infrastructure Fund Report
As of January 1, 2008

We get our current appropriation from the Rebuild Iowa Infrastructure Fund. This Appropriation funds our current capital improvement project.

Project Name:	Agriculture Expo Center and Related Projects	
Revenue Sources:	$3,000,000	Appropriation received July 1, 2007
	5,000,000	Appropriation to be received July 1, 2008
	3,000,000	Appropriation to be received July 1, 2009
	9,000,000	Other from private sources
	$20,000,000	
Agency Submitting Request:	Iowa State Fair	
% of Completed Work:	0.07%	
Total Estimated Project Cost:	$20,000,000	
Expended Funds:	726,526	Appropriation Funds
	587,587	Iowa State Fair Funds
	1,314,113	Total
Obligated Funds:	N/A	
Estimated Completion Date:	2008-2010	

DEPARTMENT OF TRANSPORTATION

Iowa Department of Transportation
800 Lincoln Way, Ames, Iowa 50010
515-239-1340
Fax: 515-239-1120

DATE: January 22, 2007

TO: David Reynolds, Legislative Services Agency

Charles Krogmeier, Director, Department of Management

FROM: Nancy Richardson, Director

RE: HF 2782

House File 2782 (2007 Infrastructure Appropriations Act) requires state agencies that receive Appropriations from specified funds to report that information. The Iowa Department of Transportation received funds from the Rebuild Iowa Infrastructure Fund, the State Recreational Trails Fund, the Health Restricted Capitals, and the Rail Revolving Loan and Grant Program in FY 2007. Also attached are status reports for those projects which received FY 2006 funds from the State Recreational Trails Fund, the Rebuild Iowa Infrastructure Fund, and the Tobacco Settlement Trust Fund.

The attached sheets provide the required information.

Thank you.

NJR:sa
Attachments

State Recreational Trails Fund (SRT) - FY 2007

Description of Project	FY 2007 SRT Appropriated Funds	Total Estimated Cost	List of all Revenue Sources	FY 2007 SRT Funds Used	FY 2007 Remaining SRT Funds Obligated	Status of Project	Estimated Completion Date - Funds Expire June 30, 2010
4-Mile Creek Greenway Trail (Polk County Conservation Board/City of Ankeny Parks and Recreation Department)	$690,000	$1,334,331	SRT Fund, Polk County Conservation, MPO, and City of Ankeny	$0	$690,000	Agreement signed 3/06/2007 - development in process	3/1/2009
18th Street to Riverview Trail Development (Waterloo)	$252,187	$336,250	SRT Fund and City of Waterloo	$0	$252,187	Agreement signed 3/29/2007 - development in process	7/1/2008
Alice's Road Greenbelt Trail Improvements (Clive)	$402,405	$536,540	SRT Fund and City of Clive	$0	$402,405	Agreement signed 2/07/2007 - development in process	10/1/2008
Cemar Trail - Phase 2 (Cedar Rapids)	$150,000	$200,000	SRT Fund and Cedar Rapids CIP Funds	$0	$150,000	Agreement not signed - work not started	9/1/2009
Coon Rapids Town Loop Trail (Coon Rapids)	$106,875	$142,500	SRT Fund and City of Coon Rapids/Whiterock Conservancy	$0	$106,875	Agreement signed 4/16/2007 - development in process	10/15/2008
Des Moines County Recreational Trail - Phase 1 Burlington to Starr's Cave (Des Moines County)	$360,000	$1,150,000	SRT Fund and county funds	$0	$360,000	Agreement signed 2/19/2007 - development in process	6/30/2008
Lakeview OHV Park Upgrades (Dirt Surfers Inc)	$39,315	$52,420	SRT Fund	$0	$39,315	Agreement signed 6/27/2007 - development in process	10/1/2008
Trail Projects in Wapello County (Wapello County) *	$200,000	$200,000	SRT Fund and county funds	$0	$200,000	Agreement signed 4/16/2007 - development in process	4/16/2009

The FY 2007 SRT appropriation was for $2,000,000. The total amount of SRT funding for projects listed in this report is over $2,000,000 as result of awarding additional funding from previous project underruns.

* Direct Appropriation From Iowa Legislature

State Recreational Trails Fund (SRT) - FY 2006

Description of Project	FY 2006 SRT Appropriated Funds	Total Estimated Cost	List of all Revenue Sources	FY 2006 SRT Funds Used	FY 2006 Remaining SRT Funds Obligated	Status of Project	Estimated Completion Date - Funds Expire June 30, 2009
Phase I of the Gypsum City OHV Park. (Webster County)	$250,000	$1,660,250	SRT Fund and All-Terrain Vehicle Registration Funds	$0	$250,000	Agreement signed 8/23/2006 - development in process	10/27/2008
Trail construction connecting the Little Sioux County Park to the city of Correctionville. (Woodbury County Conservation Board)	$150,000	$1,027,760	SRT Fund, Federal Transportation Enhancement Funds, REAP grant, county, city, and private funds	$145,500	$4,500	Agreement signed 7/11/2006 - construction complete - release of remaining funds pending final approval by Iowa DOT	3/1/2008
Phase 4 of the Clear Creek Trail from Mormon Handcart Park to the Clear Creek bridge on U.S. Highway 6. (Coralville)	$327,912	$437,216	SRT Fund and city hotel/motel tax	$0	$327,912	Agreement signed 8/9/2006 - development in process	4/1/2008
Construction of trail connecting existing trails in Johnston to the Neal Smith Trail in Des Moines. (Polk County Conservation Board)	$346,739	$1,406,960	SRT Fund, county funds, Federal Transportation Enhancement Funds and MPO Transportation Enhancement Funds	$329,402	$17,337	Agreement signed 8/2/2006 - construction complete- release of remaining funds pending final inspection by Iowa DOT	3/1/2008
Development of a trail to fill a gap in the trail network around Clear Lake and extending to Mason City. (Cerro Gordo County)	$50,000	$71,167	SRT Fund and county funds	$0	$50,000	Agreement signed 7/11/2006 - development in process	10/27/2008

The FY 2006 SRT appropriation was for $1,000,000. The total amount of SRT funding for projects listed in this report is over $1,000,000 as result of awarding additional funding from previous project underruns.

FY 2007 Health Restricted Capitals

Description of Project	FY 2007 Appropriated Funds	Total Estimated Cost	List of all revenue sources	FY 2006 Funds used	FY 2006 Remaining Funds Obligated	Status of project	Date Completed or Estimated Completion Date
Commercial Service Vertical Infrastructure (CSVI) - Vertical infrastructure improvements at the commercial air service airports within the state	$1,500,000	$6,937,205	Airport funds, federal funds, Passenger Facility Fees (PFCs)	$184,841	$1,315,159	Grants with eight airports executed 7/2006: all projects are in process	12/31/2008
General Aviation Vertical Infrastructure (GAVI) - Vertical infrastructure improvement grant program for improvements at general aviation airports within the state	$750,000	$1,071,444	City funds, private donations, federal Airport Improvement Program	$314,177	$435,823	11 project agreements with airport sponsors executed 7/2006: 3 completed, 4 nearly complete, 4 in process	12/31/2008

FY 2007 Rebuild Iowa Infrastructure Fund (RIIF)

Description of Project	FY 2007 Appropriated Funds	Total Estimated Cost	List of all revenue sources	FY 2006 Funds used	FY 2006 Remaining Funds Obligated	Status of project	Date Completed or Estimated Completion Date
Airport Improvement - Operation and maintenance of the network of automated weather observation and data transfer systems, the runway marking program for public airports, the windsock program for public airports, and the aviation improvement program	$564,000	$659,938	City funds, federal Airport Improvement Program grants	$281,921	$282,079	AWOS annual maintenance and runway marking completed; windsocks available as needed; 9 airport improvement project agreements - 5 completed, 4 in process; statewide studies - in process	12/31/2008

FY 2006 Rebuild Iowa Infrastructure Fund (RIIF)

Description of Project	FY 2006 Appropriated Funds	Total Estimated Cost	List of all revenue sources	FY 2006 Funds used	FY 2006 Remaining Funds Obligated	Status of project	Date Completed or Estimated Completion Date
Airport Improvement - Operation and maintenance of the network of automated weather observation and data transfer systems, the runway marking program for public airports, the windsock program for public airports, and the aviation improvement program	$564,792	$1,687,642	City funds, federal Airport Improvement Program grants, state aviation fund	$481,593	$83,199	AWOS annual maintenance and runway marking completed; windsocks available as needed; 12 airport improvement project agreements - 8 completed, 4 in process; statewide studies - nearly complete	6/30/2008
General Aviation Vertical Infrastructure (GAVI) - Vertical infrastructure improvement grant program for improvements at general aviation airports within the state	$750,000	$2,327,451	City funds, private donations, federal Airport Improvement Program	$603,100	$146,900	23 project agreements with airport sponsors executed 8/2005: 20 completed, 3 in process	12/31/2008

FY 2006 Tobacco Settlement Trust Fund

Description of Project	FY 2006 Appropriated Funds	Total Estimated Cost	List of all revenue sources	FY 2006 Funds used	FY 2006 Remaining Funds Obligated	Status of project	Date Completed or Estimated Completion Date
Commercial Service Vertical Infrastructure (CSVI) - Vertical infrastructure improvements at the commercial air service airports within the state	$1,500,000	$4,101,875	Airport funds, federal funds	$1,500,000	$0	Grants with eight airports executed 8/2005: All projects completed.	9/13/2007

FY 2007 Health Restricted Capital - Commercial Service Vertical Infrastructure Program

AIRPORT	Description of Project	Total Estimated Project Cost	State Share	Other Revenue Sources	State Funds Used	Remaining Obligated	Status of Project	Date Completed or Estimated Completion Date
Burlington - Southeast Iowa	Construct hangars	$100,000	$96,465	Airport Authority funds	$11,486	$84,979	Design in process	12/31/2008
Cedar Rapids - Eastern Iowa	Construct aircraft rescue fire fighting (ARFF) storage facility	$2,039,155	$299,389	Airport funds, Passenger facility charge (PFC) revenue	$101,892	$197,497	Construction in process	12/31/2008
Des Moines	Construct airfield storage building, modify terminal for EDS deployment, construct material storage building	$2,718,000	$580,140	Airport Funds, Federal Airport Improvement Funds	$0	$580,140	Construction in process	3/31/2008
Dubuque	Renovate hangar, construct terminal, renovate current terminal building	$200,000	$108,334	Airport funds, Federal Airport Improvement Funds, Additional state grant	$41,962	$66,372	Hangar renovated, in process of acquiring land for terminal construction	12/31/2009
Fort Dodge	Terminal renovation in security area, hangar demolition & construction	$950,000	$96,966	Airport funds, Federal Airport Improvement Funds	$0	$96,966	Construction in process	6/30/2008
Mason City	Construct FBO office addition, renovate terminal building and maintenance shop, construct a 80'x80' cold storage hangar, extend utilities	$705,000	$99,701	Airport funds	$29,501	$70,200	Construction in process	6/30/2008
Sioux City	Terminal building renovation, hangar roof replacement, and hangar door replacement	$112,000	$109,430	Airport funds	$0	$109,430	Construction in process	12/31/2008
Waterloo	Renovate hangers	$113,050	$109,575	Airport funds	$0	$109,575	Project has been bid, construction winter/spring	6/30/2008
	TOTAL	$8,937,205	$1,500,000		$184,841	$1,315,159		

FY 2007 Health Restricted Capital - General Aviation Vertical Infrastructure Program

AIRPORT	Description of Project	Total Estimated Project Cost	State Share	Other Revenue Sources	State Funds Used	Remaining Obligated	Status of Project	Date Completed or Estimated Completion Date
Ames	Rehabilitate t-hangars	$100,000	$58,650	City funds, additional state infrastructure funds	$16,713	$41,937	Nearing completion	3/30/2008
Emmetsburg	Rehabilitate airport terminal building	$8,060	$6,448	Potential local casino grant, city funds	$0	$6,448	Delayed - project may change to new terminal if local casino grant received	12/31/2008
Harlan	Rehabilitate hangars	$80,000	$30,440	City funds, additional state infrastructure funds	$30,440	$0	Completed	8/2/2007
Iowa City	Rehabilitate hangar	$58,000	$49,300	City funds	$45,129	$4,171	Nearing completion	1/31/2008
Iowa Falls	Rehabilitate terminal	$69,443	$35,000	City funds, local development funds, additional state infrastructure funds	$28,760	$6,240	Construction in process	6/30/2008
Keokuk	Rehabilitate airport terminal building	$59,581	$50,644	City funds	$6,767	$43,877	Construction in process	12/31/2008
Mapleton	Install self fueling credit card system	$20,000	$17,000	City funds	$0	$17,000	Construction in process	6/30/2008
Mount Pleasant	Construct conventional hangar	$245,000	$183,858	City funds (sales tax proceeds)	$83,708	$100,150	Nearing completion	3/31/2008
Red Oak	Construct conventional hangar	$288,000	$216,000	City funds, local industrial foundation	$0	$216,000	Substantially completed	3/31/2008
Rock Rapids	Install self fueling credit card system	$23,360	$12,600	City funds, additional state infrastructure funds	$12,600	$0	Completed	5/14/2007
Shenandoah	Construct 4-unit t-hangar	$120,000	$90,060	City funds	$90,060	$0	Completed	12/4/2007
		$1,071,444	$750,000		$314,177	$435,823		

FY 2007 RIIF - Airport Improvement Program

Description of Project	Total Estimated Project Cost	State Share	List of all revenue sources	FY 2007 Funds used	FY 2007 Remaining Funds Obligated	Status of project	Date Completed or Estimated Completion Date
Maintenance of statewide aviation weather observation system and transmittal of data (FY 2007 and FY 2008)	$359,000	$359,000	none	$174,645	$184,355	on going	12/31/2008
Windsocks	$7,500	$730	Aviation fund	$730	$0	on going	6/30/2008
Operational emergencies	$35,714	$25,000	City funds		$25,000	on going	12/31/2008
Wildlife mitigation	$25,000	$25,000	none	$9,312	$15,688	Consultations at 34 airports completed, 34 additional consultations scheduled during 2008	9/30/2008
Land use study implemenation	$24,270	$24,236	none	$0	$24,236	Workshops scheduled, applications from airports due April 2008	6/30/2009
Airfield Projects							
Carroll-construct access taxiway	$80,000	$51,452	City funds	$51,452	$0	Completed	6/1/2007
Decorah-install perimeter fence	$22,000	$15,400	City funds	$0	$15,400	In process	12/31/2008
Fairfield-pavement maintenance	$5,000	$2,500	City funds	$1,250	$1,250	In process	6/30/2008
Forest City-pavement maintenance	$10,000	$5,000	City funds	$2,500	$2,500	In process	6/30/2008
Le Mars-security lighting	$19,500	$13,650	City funds	$0	$13,650	In process	12/31/2008
Manchester-pavement maintenance	$5,460	$2,282	City funds	$2,282	$0	Completed	12/13/2006
Milford-pavement maintenance	$20,244	$10,000	City funds	$10,000	$0	Completed	9/30/2006
Newton-security gate	$20,000	$14,000	City funds	$14,000	$0	Completed	12/13/2006
Vinton-replace runway end identifier	$26,250	$15,750	City funds	$15,750	$0	Completed	4/4/2007
	$669,938	$564,000		$281,921	$282,079		

FY 2006 RIIF - Airport Improvement Program

Description of Project	Total Estimated Project Cost	State Share	List of all revenue sources	FY 2006 Funds used	FY 2006 Remaining Funds Obligated	Status of project	Date Completed or Estimated Completion Date
Maintenance of statewide aviation weather observation system and transmittal of data	$169,589	$169,559	FY 2005 funds	$169,559	$0	completed	9/30/2007
Windsocks	$7,500	$7,500	none	$7,500	$0	completed	
Pavement Marking	$343,075	$94,000	FY 2005 funds, federal airport improvement funds, aviation fund	$33,732	$60,268	35 airports painted, 10 airports scheduled in 2008	9/30/2008
Operational emergencies	$21,429	$15,000	City funds	$4,534	$10,466	ongoging	6/30/2008
Statewide system planning studies	$780,349	$38,800	Federal Airport Improvement Program grant	$34,597	$4,203	In process	6/30/2008
Airfield Projects							
Belle Plaine-Pavement rehabilitation & drainage improvement	$10,000	$7,000	City funds	$7,000	$0	Completed	12/16/2005
Clinton-Runway maintenance	$19,500	$6,230	City funds	$6,230	$0	Completed	8/28/2007
Decorah-Supplemental wind cones	$18,000	$8,276	City funds	$8,276	$0	Completed	4/16/2007
Fairfield-Runway maintenance	$10,000	$5,000	City funds	$5,000	$0	Completed	5/9/2006
Independence-Taxiway to new hangar construction	$69,600	$48,720	City funds	$42,324	$6,396	Waiting final punch list and final request	3/31/2008
Le Mars-Access control/fencing and gate	$21,000	$14,194	City funds	$14,194	$0	Completed	10/19/2006
Ottumwa-Access control/fencing and gate	$60,000	$43,332	City funds	$43,332	$0	Completed	3/9/2007
Sibley-Airport Layout Plan	$38,000	$26,600	City funds	$25,270	$1,330	In process-waiting FAA review	6/30/2008
Tipton-Airport Layout Plan	$25,000	$17,500	City funds	$17,312	$188	In process-waiting FAA review	6/30/2008
Vinton-Runway maintenance	$10,000	$5,000	City funds	$5,000	$0	Completed	4/12/2007
Washington-Remote Communication Outlet	$10,000	$5,861	City funds	$5,861	$0	Completed	10/21/2005
Winterset-PAPI installation	$74,600	$52,220	Airport Authority funds	$51,872	$348	Project complete - need final payment request	3/31/2008
	$1,687,642	$564,792		$481,593	$83,199		

FY 2006 Tobacoo Settlement - Commercial Service Vertical Infrastructure Program

AIRPORT	Description of Project	Total Estimated Project Cost	State Share	Other Revenue Sources	State Funds Used	Remaining Obligated	Status of Project	Date Completed or Estimated Completion Date
Burlington - Southeast Iowa	Install general aviation self-fueling facility	$115,570	$96,788	Additional state grant, airport authority funds	$96,788	$0	Completed	6/30/2007
Cedar Rapids - Eastern Iowa	Renovate revenue control building, renovate terminal building and improve mechanical and electrical systems. Construct covered walkway and departure holdroom - B Concourse in terminal building (Phase 1).	$1,146,000	$311,162	Airport Commission funds	$311,162	$0	Completed	9/13/2007
Des Moines	Construct field maintenance storage building	$1,336,000	$567,927	FY2007 CSVI ($570,000)	$567,927	$0	Completed	6/30/2007
Dubuque	Install general aviation self fueling, construct box hangar, hangar roof replacement	$300,000	$109,213	Additional state grant, city funds	$109,213	$0	Completed	6/30/2007
Fort Dodge	Terminal security sterile area renovation, hangar renovation, self fueling facility	$781,000	$96,775	City funds, federal airport improvement	$96,775	$0	Completed	6/30/2007
Mason City	Construct FBO office addition	$200,000	$99,507	Additional state grant, airport funds	$99,507	$0	Completed	6/30/2007
Sioux City	Terminal building roof replacement, hangar door replacement.	$115,000	$110,677	City funds	$110,677	$0	Completed	1/9/2007
Waterloo	Hangar roof replacement, tee-hangar door replacement.	$108,305	$107,951	City funds	$107,951	$0	Completed	2/27/2006
	TOTAL	$4,101,875	$1,500,000		$1,500,000	$0		

FY 2006 RIIF - General Aviation Vertical Infrastructure Program

AIRPORT	Description of Project	Total Estimated Project Cost	State Share	Other Revenue Sources	State Funds Used	Remaining Obligated	Status of Project	Date Completed or Estimated Completion Date
Algona	Renovate fuel system	$8,000	$5,600	City funds	$5,600	$0	Completed	1/3/2007
Boone	Renovate office roof	$8,500	$4,648	City funds	$4,648	$0	Completed	7/17/2006
Carroll	Construct new T-hangar	$204,000	$50,000	City funds	$50,000	$0	Completed	6/4/2007
Charles City	Replace terminal and shop hangar roofs	$64,282	$27,755	City funds, Additional state grant	$27,755	$0	Completed	5/31/2007
Council Bluffs	Replace roofs on T-hangars	$74,291	$49,583	City funds	$49,583	$0	Completed	10/27/2005
Davenport	Electrical vault relocation	$67,000	$46,900	City funds	$0	$46,900	Construction in process	4/30/2008
Decorah	Hangar expansion and renovation	$75,000	$42,262	City funds	$42,262	$0	Completed	2/1/2007
Denison	Radiant heating systems in terminal & hangar	$30,000	$21,000	City funds	$21,000	$0	Completed	5/2/2006
Emmetsburg	Replace fuel system and add credit card reader	$45,400	$24,243	City funds, Additional state grant	$24,243	$0	Completed	12/7/2006
Fairfield	Rehabilitate hangars	$30,000	$20,930	City funds	$20,930	$0	Completed	6/19/2006
Greenfield	Renovate roof for Iowa Aviation Museum	$68,000	$47,600	Museum funds	$47,600	$0	Completed	5/23/2007
Independence	Construct new T-hangar	$190,000	$50,000	City funds	$50,000	$0	Completed	6/30/2007
Keokuk	Renovate hangar	$15,342	$9,949	City funds	$9,949	$0	Completed	7/27/2006
Knoxville	Construct new terminal/hangar	$675,000	$50,000	City funds, Federal Airport Improvement Program Grant	$0	$50,000	Construction in process	12/31/2008
Maquoketa	Rehabilitate hangars	$19,950	$8,733	City funds	$8,733	$0	Completed	6/30/2006
Monticello	Construct hangar	$116,500	$50,000	City funds	$50,000	$0	Completed	6/5/2006
Osceola	Rehabilitate hangar	$61,186	$42,818	City funds	$42,818	$0	Completed	4/27/2007
Ottumwa	Rehabilitate large hangar	$77,000	$50,000	City funds	$50,000	$0	Completed	10/15/2006
Sheldon	Construct new terminal/hangar	$364,000	$50,000	City funds, Federal Airport Improvement Program Grant	$0	$50,000	Construction in process	6/30/2008
Tipton	Rehabilitate hangars	$30,000	$15,459	City funds	$15,459	$0	Completed	4/27/2007
Washington	Rehabilitate hangar and fuel system	$22,600	$15,754	City funds	$15,754	$0	Completed	8/24/2006
Waverly	Replace fuel tanks	$15,000	$10,500	City funds	$10,500	$0	Completed	5/30/2006
	Beacon Tower Rehabilitation at Ames, Clinton, Council Bluffs, and Muscatine airports	$66,400	$56,266	City funds	$56,266	$0	Completed	9/30/2006
		$2,327,451	$750,000		$603,100	$146,900		

FY 2007 Health Restricted Capital Fund (HRCF)

Description of Project	FY 2007 Appropriated Funds	Total Estimated Cost	List of all revenue sources	FY 2007 Funds used	FY 2007 Remaining Funds Obligated	Status of project	Date Completed or Estimated Completion Date
Public Transit Infrastructure Grants (PTIG) - Vertical infrastructure improvements at facilities serving Iowa's public transit systems	$2,200,000	$5,325,005	Federal Transit Funds, Transit Agency Funds	$45,438	$2,154,562	Grants with eight transit systems executed 3/07, one additonal partial grant executed 7/07, one of original projects cancelled, all others are in progress	9/30/2008

FY 2007 Health Restricted Capital Funds - Public Transit Infrastructure Grants

Transit System	Description of Project	Total Estimated Project Cost	State Share	Other Revenue Sources	State Funds Paid To Date	Remaining Obligated	Status of Project	Date Completed or Estimated Completion Date
FY07 Projects - Approved March, 2007								
CyRide (Ames)	Expand operations/administration area of CyRide maintenance facility	$1,100,000	$880,000	Transit Agency Funds	$0	$880,000	Construction in progress	5/31/2008
City of Cedar Rapids	Construct transit portion of new downtown intermodal facility	$2,589,453	$455,000	Federal Transit Funds, Transit Agency Funds	$0	$455,000	Project being dropped due to city reorganization (Anticpate funds will be assigned to FY08 projects cut back to meet funding constraints)	NA
City of Davenport	Construct new transit hubs adjacent to regional shopping center and on campus of local university	$209,908	$167,926	Transit Agency Funds	$0	$167,926	Paving completed, shelters to be delivered in February and installed in March	3/31/2008
DART (Des Moines)	Renovate maintenance area of DART facility	$66,677	$53,341	Transit Agency Funds	$0	$53,341	Design work in progress	8/31/2008
City of Sioux City	Construct new parts storage building at transit maintenance facility	$50,000	$40,000	Transit Agency Funds	$0	$40,000	Construction nearly complete	3/31/2008
North Iowa Area Regional Transit (Mason City)	Construct a variety of projects to finish out recently constructed transit maintenance facility shared with City of Mason city	$72,900	$58,320	Transit Agency Funds	$0	$58,320	Construction nearly complete	3/31/2008
RIDES/Regional Transit Authority (Spencer)	Construct new satellite facility in Sheldon for transit vehicle storage and mainenance	$491,800	$200,000	Federal Transit Funds, Transit Agency Funds	$0	$200,000	Design work in progress, waiting on approval of federal grant	9/30/2008
Western Iowa Transit System (Carroll)	Expand transit mainenance and storage facility in Carroll	$587,500	$220,000	Federal Transit Funds, Transit Agency Funds	$0	$220,000	Design work in progress, waiting on approval of federal grant	9/30/2008
Partial FY08 Project - Approved July,2007								
Deleware, Dubuque and Jackson County Regional Transit Authority (Dubuque)	Construct new regional transit office, storage and maintenace facility in Dubuque (Partial project - See also FY08 RIIF-funded program)	$156,767	$125,413	Transit Agency Funds	$45,438	$79,975	Project has been bid, construction winter/spring	6/30/2008
	TOTAL	$5,325,005	$2,200,000		$45,438	$2,154,562		

Rail Revolving Loan and Grant Program (RRLG)
FY 2007 State Appropriation

Project	Project Description	Total Project Cost	RRLG Share	Other Revenue Sources	RRLG Funds Used	Remaining Obligated Funds	Status	Completion date
Iowa Renewable Energy (IRE)	Construct 4198 lineal feet of rail to serve new 30M gallon per year biodiesel plant	$1,258,530	$300,000	IRE private investment	$300,000	None	Complete	November, 2007
Metzler Automotive Profile Systems	Remove 544 feet of existing rail and reconstruct 495 feet of new track	$406,700	$60,000	City, Metzler Auto, BNSF Railroad	$60,000	None	Complete	December, 2007

The FY2007 state appropriation for the RRLG program was $235,000. The total amount of Rail Revolving Loan and Grant funding listed in this report is over $235,000 as a result of awarding additional funding from loan repayments.

TREASURER OF STATE

Michael L. Fitzgerald
Treasurer of State
Capitol Building
Des Moines, IA 50319-0005

Telephone: (515) 281-5368
Fax: (515) 281-7562
E-Mail: treasurer@iowa.gov
www.treasurer.state.ia.us

February 1, 2008

To: Marcia Tannian
Legislative Service Agency

Fr: Stefanie Devin
Office of Treasurer of State

Re: RIIF Appropriation Report

For FY2007, two appropriations were made from the RIIF fund to this office. The first was $1,060,000 for County Fair Improvements. The second was $5,416,604 for Prison Bond Debt Service. In FY2008, a $1,590,000 RIIF appropriation was made for County Fair Improvements.

Each year, the treasurer's office transfers the entire County Fair Improvement appropriation to the Association of Iowa Fairs. The Association administers this money as directed in Iowa Code Chapter 174 and submits a report to the governor and general assembly each February 1st. The appropriation for Prison Bond Debt Service is used to pay the principal and interest that is due annually on correctional facility bonds.

DEPARTMENT OF VETERANS AFFAIRS

Iowa Veterans Home
Iowa's Health Restricted Capitals Fund Report
FY08 (July 1, 2007 thru June 30, 2008)

Dack Dining & Activity Room Expansion Project

Description of the Project

The Iowa Veterans Home Dack Care Building currently houses 168 nursing care residents on three floors. The existing dayrooms serve multiple resident needs with their primary function being a dining facility for those residents requiring feeding assistance. Each area is approximately 900 sq. ft. Iowa Veterans Home intends to add an additional 1,578 sq. ft. to each resident level. This would create sufficient space to accommodate all activities, recreational purposes and dining of residents on each unit. At present, we are restricted to allowing 23 residents to dine in each of these units, currently fulfilling only 40% of the need depending on the unit.

Progress of Work Completed

* IVH currently is in a contract with an architectural firm.
* DAS Design and Construction Department is assisting IVH with leading the project.

Total Estimated Cost of the Project

$3.8 million broken down to $2,470,000 federal funded and $1,330,000 state funded

NOTE: Federal government matches state funds 65%/35% (as shown above). We are in the queue for federal funding on this project (64th in ranking for 2008).

List All Revenue Sources Being Used to Fund the Project

$6,200,000 comes from Restricted Capitals HF 2782 (FY 2007 RIIF Appropriation Act). Approximately $3.8 million of this funding will be used for the Dack Dayroom Expansion Project. The balance of the infrastructure account will be applied towards our Master Plan building improvements. IVH has completed a Master Plan with an architectural firm. The Master Plan identifies future veteran population trends, health care needs etc.

Amount of Funds Expended through December 31, 2007

$123,987 to DAS Design and Construction Division for fees associated with procurement and contract negotiations.

Amount of Funds Obligated

Currently $105,793.87 has been spent on the design phase contract, amendments and agreements with the architect. The total contracted is $278,600.

Estimated Completion Date of the Project

FY 2010 with state funds and will await 65% match for federal reimbursement.

Iowa Veterans Home
Iowa's Health Restricted Capitals Fund Report
FY08 (July 1, 2007 thru June 30, 2008)

Master Plan, Phases 1 - 4

Description of the Project

The Iowa Veterans Home has developed a Master Plan to design and construct new buildings to facilitate a shift from an institutional environment to a home-like atmosphere. The Master Plan includes the following phases:

Phase 1 – Construct two new single story facilities; a 132-bed nursing home and a 60-bed pavilion (Pavilion 1) for nursing care. Upon completion, 150 residents currently located in the Loftus and Sheeler Buildings will be moved to the two new facilities. In addition, 42 residents currently located in the Dack Building will be moved to Pavilion 1.

Phase 2 – Construct a new single story 60-bed pavilion (Pavilion 2)
Upon completion, approximately 40% of the current residents in the Dack Building will be relocated to this facility. This move will facilitate the future relocation of Heinz Hall residents to the Dack Building, which will be converted from a nursing facility to a domiciliary and allow the demolition of Heinz Hall.

Phase 3 – Replace/renovate the Loftus Building to a new main entrance for the Iowa Veterans Home. The new main entrance will be the focus of the realigned main drive and will house the central switchboard, visitor reception, orientation tours for prospective residents and family members, as well al the historic heritage archive and museum display. The project also involves the remodel of the Sheeler Building to accommodate therapeutic and administrative services. The ground floor will provide new space for Physical and Occupational Therapies, Speech Therapy, Audiology, and the resident gym/exercise program. All administrative services will be consolidated on the second and third floors.

Phase 4 – The project will involve the relocation of the domiciliary residents currently residing in Heinz Hall to the Dack Building. Once Heinz Hall has been demolished a new single story 60-bed pavilion (Pavilion 3) will be constructed. Upon completion, 60 nursing care residents currently living in semi-private bedrooms in the Malloy Building will be relocated to Pavilion 3. The 60 rooms in the Malloy Building will be converted to private bedrooms and bathrooms at a minimal cost.

Progress of Work Completed

* IVH has completed the Master Plan contract with an architectural firm and is currently working on programming and detailed utilization of space.
* DAS Design and Construction Department is assisting IVH with managing the project.

Total Estimated Cost of the Project

The total estimated cost of the Master Plan's construction projects is $99,906,673, broken down as follows:

Phase 1 – $41,177,163 with $26,765,156 federal and $14,412,007 state funded
Phase 2 - $14,592,900 with $9,485,385 federal and $5,107,515 state funded
Phase 3 - $19,436,059 with $12,633,438 federal and $6,802,621 state funded
Phase 4 - $24,700,551 with $16,055,358 federal and $8,645,193 state funded.

NOTE: Federal government matches state funds 65% / 35% (as shown above).
We are in the queue for federal funding on the following:
Phase 1 - 39th in ranking for 2008
Phase 2 - 138th in ranking for 2008
Phase 3 - 169th in ranking for 2008
Phase 4 - 137th in ranking for 2008

List All Revenue Sources Being Used to Fund the Project

Total funds available since inception of construction account is $16,980,473 broken down as follows:

$6,200,000 from Restricted Capitals HF 2782 (FY 2007 RIIF Appropriations Act)
$6,208,528 from Iowa Veterans Home carry forward from FY 2006
$ 532,000 from RIIF Appropriation HF 911 (FY 2008 RIIF Appropriations Act)
$4,039,945 from Iowa Veterans Home carry forward from FY 2007
($3,800,000) Dack Dayroom Expansion Project

Amount of Funds Expended/Obligated

To date, DAS fees and the Master Planning contract have been expensed from our general fund.

Estimated Completion Date of the Project

The estimate time frames for completion of each Phase are as follows:

Phase 1 – Between September 2008 and December 2010
Phase 2 – Between May 2008 and November 2009
Phase 3 – Between January 2011 and August 2015
Phase 4 – Between May 2014 and December 2016

APPENDIX A

INFRASTRUCTURE AND TECHNOLOGY APPROPRIATIONS AND RECOMMENDATIONS – ALL INFRASTRUCTURE FUNDS

Infrastructure and Technology Appropriations Recommendations - All Infrastructure Funds

	Actual 2007		Estimated FY 2008		Dept Request	Gov Rec FY 2009		Appropriations Previously Enacted			
	Appropriation	Fund	Appropriation	Fund	FY 2009	Recommendation	Fund	FY 2009	Fund	FY 2010	Fund
Administrative Services - Capitals											
Administrative Services - Capitals											
Major Maintenance	$ 10,000,000	VIF	$ 40,000,000	VIF	$ 40,000,000	$ 32,000,000	RIIF	$ 40,000,000	VIF	$ 0	
New State Office Bldg	37,585,000	RC2	3,600,000	RIIF	23,300,000	20,000,000	RC3	23,300,000	RIIF	12,657,100	RIIF
Capitol Interior/Exterior	6,830,000	RC2	6,300,000	RIIF	6,200,000	6,900,000	RIIF	0		0	
Complex Utility Tunnel	0		260,000	RIIF	5,309,200	5,309,200	RIIF	0		0	
Cap Comp Elect Dist Upgrade	800,000	RCF	3,460,960	RIIF	4,470,000	4,470,000	RIIF	0		0	
ITE Pooled Technology	3,358,334	TRF	3,810,375	TRF	6,000,828	4,059,088	TRF	0		0	
Mercy Capitol Acquisition	0		0		0	3,400,000	RC2	0		0	
Routine Maintenance	2,536,500	RIIF	5,000,000	RIIF	20,000,000	3,000,000	RIIF	0		0	
Hoover Bldg HVAC Improve	0		1,320,000	RIIF	1,500,000	1,500,000	RIIF	0		0	
Property Acquisition	500,000	RC2	1,000,000	RIIF	1,000,000	1,000,000	RIIF	0		0	
I3 Operations	0		2,000,000	RIIF	0	1,000,000	TRF	0		0	
Terrace Hill Maintenance	75,000	RIIF	0		956,000	956,000	RIIF	0		0	
Terrace Hill Roof Repair	700,000	RCF	0		0	0		0		0	
DHS-CCUSO Renovation	0		750,000	RIIF	829,000	829,000	RIIF	829,000	RIIF	0	
Energy Plant & Additions	0		998,000	RIIF	623,000	623,000	RIIF	0		0	
Install Pre-Heat Piping for Lucas Building	0		0		300,000	300,000	RC2	0		0	
Cap. Complex Master Plan	0		0		250,000	250,000	RIIF	0		0	
Cap. Complex Alt. Energy System	0		0		200,000	200,000	RC2	0		0	
Hoover Security/Fire Walls	0		0		165,000	165,000	RIIF	0		0	
Workforce Bldg Asbestos	0		1,000,000	RIIF	12,000,000	0		0		0	
Replace Court Ave Bridge	0		0		6,000,000	0		0		0	
East Parking Lot Restoration	0		0		3,070,000	0		0		0	
Energy Plant Fire Protection	0		0		2,000,000	0		0		0	
Leases/Assistance	1,824,500	RIIF	1,824,500	RIIF	1,824,500	0		0		0	
West Capitol Terrace	0		1,600,000	RIIF	1,050,000	0		0		0	
Statewide Demolition Funding	0		0		1,000,000	0		0		0	
Grimes Office Bldg Planning	0		0		750,000	0		0		0	
Service Oriented Architecture	0		254,992	TRF	254,992	0		0		0	
Enterprise Resource Planning I/3	-1,500,000	RCF	1,500,000	RIIF	0	0		0		0	
Sidewalk & Parking Lot Repairs	0		1,650,000	RIIF	0	0		0		0	
Vehicle Dispatch Fleet Relocation	0		350,000	RIIF	0	0		0		0	
Workers' Monument	0		200,000	RIIF	0	0		0		0	
Toledo Education & Infirmary	5,030,668	RC2	3,100,000	RIIF	0	0		0		0	
Toledo Powerhouse	1,521,045	RC2	0		0	0		0		0	
Toledo Powerhouse	7,035,000	RIIF	0		0	0		0		0	
Woodward Wastewater Facility	2,443,000	RC2	0		0	0		0		0	
Disabled Veterans Memorial	0		50,000	RIIF	0	0		0		0	
Total Administrative Services - Capitals	$ 78,739,047		$ 80,028,827		$ 139,052,520	$ 85,961,288		$ 64,129,000		$ 12,657,100	

Infrastructure and Technology Appropriations Recommendations - All Infrastructure Funds

	Actual 2007		Estimated FY 2008		Dept Request	Gov Rec FY 2009		Appropriations Previously Enacted			
	Appropriation	Fund	Appropriation	Fund	FY 2009	Recommendation	Fund	FY 2009	Fund	FY 2010	Fund
Agriculture and Land Stewardship											
Agriculture and Land Stewardship											
Weights & Measures Scale Trucks	$ 0		$ 0		$ 555,000	$ 0		$ 0		$ 0	
Total Agriculture and Land Stewardship	$ 0		$ 0		$ 555,000	$ 0		$ 0		$ 0	
Blind Capitals, Department for the											
Department For The Blind Capitals											
Blind Building Renovation	$ 4,000,000	RC2	$ 0		$ 0	$ 869,748	RIIF	$ 0		$ 0	
Total Blind Capitals, Department for the	$ 4,000,000		$ 0		$ 0	$ 869,748		$ 0		$ 0	
Corrections Capital, Department of											
Corrections Capital											
Iowa State Penitentiary	$ 0		$ 0		$ 121,175,000	$ 130,677,500	PBF	$ 0		$ 0	
Iowa Correctional Inst. for Women	0		0		51,430,000	67,979,000	RC3	0		0	
CBC Des Moines Expansion	0		0		21,000,000	16,000,000	RC3	0		0	
Mt. Pleasant/Rockwell City Kitchens	0		0		12,500,000	12,500,000	RC3	0		0	
Comm. Treatment Resource Centers	0		0		0	10,000,000	RC3	0		0	
CBC Waterloo Bed Expansion	0		0		6,833,334	5,833,333	RC3	0		0	
CBC Ottumwa Bed Expansion	0		0		6,833,333	5,833,333	RC3	0		0	
CBC Sioux City Bed Expansion	0		0		6,833,333	5,833,333	RC3	0		0	
DOC A & E Funding	0		0		0	1,000,000	RIIF	0		0	
Iowa Corrections Offender Network	500,000	TRF	500,000	TRF	500,000	500,000	TRF	0		0	
Project Manager	0		0		0	500,000	RIIF	0		0	
Major Maintenance	0		0		36,440,000	0		0		0	
Newton Bed Expansion	0		0		25,300,000	0		0		0	
*Security Improvements***	0		0		2,000,000	0		0		0	
Iowa State Penitentiary Electrical Lease	333,168	RIIF	333,168	RIIF	0	0		0		0	
Anamosa Dietary Renovation	0		1,400,000	RC2	0	0		0		0	
Anamosa Boiler	0		25,000	RIIF	0	0		0		0	
Fort Dodge CBC Facility	1,000,000	RC2	2,450,000	RIIF	0	0		0		0	
DOC Capitals Request	0		5,495,000	RIIF	0	0		0		0	
Prison System Study	500,000	RIIF	500,000	RIIF	0	0		0		0	
CBC Cedar Rapids Mental Health Facility	1,000,000	RC2	1,300,000	RIIF	0	0		0		0	
Davenport CBC Facility	3,750,000	RC2	0		0	0		0		0	
Total Corrections Capital	$ 7,083,168		$ 12,003,168		$ 290,845,000	$ 256,656,499		$ 0		$ 0	

Infrastructure and Technology Appropriations Recommendations - All Infrastructure Funds

	Actual 2007		Estimated FY 2008		Dept Request	Gov Rec FY 2009		Appropriations Previously Enacted			
	Appropriation	Fund	Appropriation	Fund	FY 2009	Recommendation	Fund	FY 2009	Fund	FY 2010	Fund
Cultural Affairs Capital											
Cultural Affairs Capital											
Great Places Capitals	$ 3,000,000	RC2	$ 3,000,000	RIIF	$ 3,000,000	$ 2,000,000	RIIF	$ 0		$ 0	
*Historic Preservation***	800,000	RIIF	1,000,000	RIIF	1,000,000	0		0		0	
*Battle Flags***	220,000	RIIF	220,000	RIIF	220,000	0		0		0	
Technology	0		0		125,000	0		0		0	
Veteran's Oral Histories	1,000,000	RIIF	0		0	0		0		0	
American Gothic Visitors Center	250,000	RIIF	0		0	0		0		0	
Kimball Organ Restoration	0		0		80,000	0		0		0	
Total Cultural Affairs Capital	$ 5,270,000		$ 4,220,000		$ 4,425,000	$ 2,000,000		$ 0		$ 0	
Economic Development Capitals											
Economic Development Capitals											
ACE Infrastructure	$ 5,500,000	RC2	$ 5,500,000	RIIF	5,500,000	$ 5,500,000	RIIF	$ 0		$ 0	
Community & Tourism Grant	5,000,000	RIIF	5,000,000	RIIF	5,000,000	5,000,000	RIIF	5,000,000	RIIF	5,000,000	RIIF
*Workforce Development & Training Fund***	0		2,000,000	RIIF	2,000,000	0		0		0	
Targeted Industries Infrastructure	0		900,000	RIIF	900,000	0		0		0	
Port Authority	80,000	RIIF	0		0	0		0		0	
*Regional Sport Authorities***	0		500,000	RIIF	500,000	0		0		0	
Total Economic Development Capitals	$ 10,580,000		$ 13,900,000		$ 13,900,000	$ 10,500,000		$ 5,000,000		$ 5,000,000	
Education Capital											
Education Capital											
ICN Part III Leases & Maintenance Network	$ 2,727,000	TRF	$ 2,727,000	TRF	$ 2,727,000	$ 2,727,000	TRF	$ 0		$ 0	
Community College Infrastructure	2,000,000	RC2	2,000,000	RIIF	2,000,000	2,000,000	RIIF	2,000,000	RIIF	0	
IPTV Equipment - Generators	0		0		0	1,602,437	TRF	0		0	
IPTV Equipment - Digital Translator	0		0		0	701,500	TRF	0		0	
IPTV Capitals Equipment	0		1,275,000	RIIF	2,303,937	0		0		0	
*Enrich Iowa***	1,200,000	RIIF	1,000,000	RIIF	1,000,000	0		0		0	
Iowa Learning Technologies	500,000	TRF	500,000	TRF	0	0		0		0	
Education Data Warehouse	0		600,000	TRF	0	0		0		0	
Digital TV Conversion	2,300,000	TRF	0		0	0		0		0	
Analog Transmission	1,425,000	TRF	0		0	0		0		0	
Uninterruptible Power Supply	315,000	TRF	0		0	0		0		0	
NEICC Ag Safety	0		35,000	RIIF	0	0		0		0	
Total Education Capital	$ 10,467,000		$ 8,137,000		$ 8,030,937	$ 7,030,937		$ 2,000,000		$ 0	
Ethics and Campaign Disclosure											
Campaign Finance Disclosure Commission											
Electronic Filing	$ 39,100	TRF	$ 0		$ 0	$ 0		$ 0		$ 0	
Total Ethics and Campaign Disclosure	$ 39,100		$ 0		$ 0	$ 0		$ 0		$ 0	

Infrastructure and Technology Appropriations Recommendations - All Infrastructure Funds

	Actual 2007		Estimated FY 2008		Dept Request	Gov Rec FY 2009		Appropriations Previously Enacted			
	Appropriation	Fund	Appropriation	Fund	FY 2009	Recommendation	Fund	FY 2009	Fund	FY 2010	Fund
Human Rights, Department of											
Integrating Justice Data Systems	$ 2,645,066	TRF	$ 2,881,466	TRF	$ 1,839,852	$ 1,839,852	TRF	$ 0		$ 0	
Total Human Rights, Department of	$ 2,645,066		$ 2,881,466		$ 1,839,852	$ 1,839,852		$ 0		$ 0	
Human Services Capital											
Human Services - Capital											
CSRU Payment Processing Equip	$ 0		$ 272,000	TRF	$ 0	$ 0		$ 0		$ 0	
Health/Safety/Loss	0		0		1,010,000	0		0		0	
Major Projects	0		0		3,162,500	0		0		0	
Maintenance	0		0		303,000	0		0		0	
Residential Treatment Center	300,000	RIIF	0		0	0		0		0	
Nursing Facility Financial Assist.	0		1,000,000	RIIF	0	0		0		0	
Total Human Services Capital	$ 300,000		$ 1,272,000		$ 4,475,500	$ 0		$ 0		$ 0	
Iowa Finance Authority											
Iowa Finance Authority											
IFA Water Quality Grants	$ 4,000,000	FES	$ 4,000,000	RIIF	$ 4,000,000	$ 0		$ 0		$ 0	
Transitional Housing	1,400,000	RIIF	0		0	0		0		0	
*State Housing Trust Fund***	0		2,500,000	RIIF	3,000,000	0		0		0	
Total Iowa Finance Authority	$ 5,400,000		$ 6,500,000		$ 7,000,000	$ 0		$ 0		$ 0	
Iowa Telecommunications & Technology Comm											
Iowa Communications Network											
ICN Platform Redundancy - Fiber Loop	$ 0		$ 0		$ 2,320,000	$ 2,320,000	TRF	0		0	
ICN Equipment Replacement	1,997,500	TRF	2,067,000	TRF	2,190,123	2,190,123	TRF	0		0	
Generator Replacement	0		0		2,283,742	0		0		0	
Total Iowa Telecommunications & Technology Comm	$ 1,997,500		$ 2,067,000		$ 6,793,865	$ 4,510,123		$ 0		$ 0	
Iowa Workforce Development											
Iowa Workforce Development											
Worker's Comp. Appeal System	$ 0		$ 500,000	TRF	$ 0	$ 0		$ 0		$ 0	
Outcome Tracking System	0		580,000	TRF	0	0		0		0	
Total Iowa Workforce Development	$ 0		$ 1,080,000		$ 0	$ 0		$ 0		$ 0	
Law Enforcement Academy											
Law Enforcement Academy											
ILEA	$ 0		$ 0		$ 100,000	$ 0		$ 0		$ 0	
ILEA Technology Projects	50,000	TRF	0		115,000	0		0		0	
Total Law Enforcement Academy	$ 50,000		$ 0		$ 215,000	$ 0		$ 0		$ 0	

Infrastructure and Technology Appropriations Recommendations - All Infrastructure Funds

	Actual 2007		Estimated FY 2008		Dept Request	Gov Rec FY 2009		Appropriations Previously Enacted			
	Appropriation	Fund	Appropriation	Fund	FY 2009	Recommendation	Fund	FY 2009	Fund	FY 2010	Fund
Management, Department of											
Management, Department of											
Standing Appropriation - Environment First Fund	$ 35,000,000	RIIF	$ 40,000,000	RIIF	$ 40,000,000	$ 24,500,000	RIIF	$ 40,000,000	RIIF	$ 40,000,000	RIIF
Standing Appropriation - Vertical Infrastructure Fund	15,000,000	RIIF	50,000,000	RIIF	50,000,000	0		50,000,000	RIIF	0	
Total Dept. of Management - Standing Appropriations	$ 50,000,000		$ 90,000,000		$ 90,000,000	$ 24,500,000		$ 90,000,000		$ 40,000,000	
Natural Resources Capital											
Natural Resources Capital											
Honey Creek Resort Park - RIIF	$ 0		$ 0		$ 8,000,000	$ 4,900,000	RIIF	$ 0		$ 0	
Honey Creek Resort Park - RCF	0		0		0	3,100,000	RCF	0		0	
Volga Lake Recreation Area	0		750,000	RIIF	750,000	750,000	RIIF	0		0	
Carter Lake Improvements	0		500,000	RIIF	500,000	500,000	RIIF	0		0	
*Lakes Restoration & Water Quality***	8,600,000	ENDW	8,600,000	RIIF	8,600,000	0		0		0	
State Park Infrastructure	0		2,500,000	RIIF	2,500,000	0		0		0	
Lewis & Clark	0		0		2,000,000	0		0		0	
Resource, Conservation, & Dev Projects	300,000	FES	0		0	0		0		0	
Lake Darling State Park Shelter	250,000	RIIF	0		0	0		0		0	
Regional Center	0		0		300,000	0		0		0	
Green Valley	0		0		100,000	0		0		0	
Lake Delhi Improvements	0		100,000	RIIF	100,000	0		0		0	
IA's Special Areas	1,500,000	RIIF	0		0	0		0		0	
Mines of Spain Park	0		100,000	RIIF	0	0		0		0	
Total Natural Resources Capital	$ 10,650,000		$ 12,550,000		$ 22,850,000	$ 9,250,000		$ 0		$ 0	
Parole, Board of											
Parole Board											
Technology Projects	$ 75,000	TRF	$ 0		$ 0	$ 0		$ 0		$ 0	
Total Parole, Board of	$ 75,000		$ 0		$ 0	$ 0		$ 0		$ 0	

Infrastructure and Technology Appropriations Recommendations - All Infrastructure Funds

	Actual 2007		Estimated FY 2008		Dept Request	Gov Rec FY 2009		Appropriations Previously Enacted			
	Appropriation	Fund	Appropriation	Fund	FY 2009	Recommendation	Fund	FY 2009	Fund	FY 2010	Fund
Public Defense Capital											
Public Defense Capital											
Gold Star Museum	$ 0		$ 1,000,000	RIIF	$ 2,000,000	$ 2,000,000	RIIF	$ 2,000,000	RIIF	$ 1,000,000	RIIF
STARCOMM	1,000,000	RIIF	2,000,000	RIIF	1,600,000	1,600,000	RIIF	1,600,000	RIIF	0	
STARCOMM	600,000	RC2	0		0	0		0		0	
Camp Dodge Elect. Dist. Upgrade	0		0		526,000	526,000	RC2	0		0	
Ottumwa Armory Addition/Alteration	0		1,000,000	RIIF	500,000	500,000	RC2	0		0	
Camp Dodge Water Project Phase 3	0		400,000	RIIF	410,000	410,000	RIIF	0		0	
Facility/Armory Maintenance	0		1,500,000	RIIF	1,750,000	0		0		0	
Davenport Aviation Readiness Center	0		0		1,500,000	0		0		0	
Camp Dodge Storm Shelter & Office	0		0		1,368,000	0		0		0	
Perry Readiness Center	0		0		900,000	0		0		0	
Audubon Readiness Center	0		0		900,000	0		0		0	
Mount Pleasant Readiness Center	0		0		900,000	0		0		0	
Knoxville Readiness Center	0		0		900,000	0		0		0	
Shenandoah Readiness Center	0		0		900,000	0		0		0	
Spencer Readiness Center	689,000	RC2	0		0	0		0		0	
Charles City Readiness Center	0		0		900,000	0		0		0	
Oelwein Readiness Center	0		0		900,000	0		0		0	
Iowa Falls Readiness Center	0		0		900,000	0		0		0	
Newton Readiness Center	0		0		700,000	0		0		0	
Camp Dodge Swimming Pool Pavilion	0		0		500,000	0		0		0	
Cedar Rapids Readiness Center	0		0		100,000	0		0		0	
Middleton Readiness Center	0		0		100,000	0		0		0	
Muscatine Readiness Center	0		0		100,000	0		0		0	
Technology Upgrades	75,000	TRF	111,000	TRF	80,000	0		0		0	
Camp Dodge Readiness Center	100,000	RIIF	50,000	RIIF	0	0		0		0	
Iowa City Readiness Center	1,444,288	RC2	1,200,000	RIIF	0	0		0		0	
Waterloo Aviation Readiness Center	1,236,000	RC2	500,000	RIIF	0	0		0		0	
Newton Readiness Center	0		400,000	RIIF	0	0		0		0	
Eagle Grove Readiness Center	0		400,000	RIIF	0	0		0		0	
Law Enf./Natl Guard Shoot House	0		500,000	RIIF	0	0		0		0	
Total Public Defense Capital	$ 5,144,288		$ 9,061,000		$ 18,434,000	$ 5,036,000		$ 3,600,000		$ 1,000,000	
Public Health, Department of											
Public Health, Department of											
Regional Env. Public Health & Emergency Mgmt	$ 100,000	RIIF	$ 0		$ 0	$ 0		$ 0		$ 0	
Total Public Health, Department of	$ 100,000		$ 0		$ 0	$ 0		$ 0		$ 0	

Infrastructure and Technology Appropriations Recommendations - All Infrastructure Funds

	Actual 2007		Estimated FY 2008		Dept Request	Gov Rec FY 2009		Appropriations Previously Enacted			
	Appropriation	Fund	Appropriation	Fund	FY 2009	Recommendation	Fund	FY 2009	Fund	FY 2010	Fund
Public Safety Capital											
Public Safety Capital											
AFIS Lease Purchase	$ 550,000	TRF	$ 560,000	TRF	$ 560,000	$ 560,000	TRF	0		0	
Ottumwa Post 14	0		0		2,700,000	0		0		0	
ISP Garage Land Acquisition	0		0		1,000,000	0		0		0	
Capitol Complex Upgrades	0		0		750,000	0		0		0	
Iowa System Redundancy	0		0		500,000	0		0		0	
Radio Replacement	0		0		450,000	0		0		0	
Fire Service Training	2,300,000	RIIF	0		0	0		0		0	
Law Enforcement Training Track	800,000	RIIF	0		0	0		0		0	
Land, Radio Console, Equipment	2,400,000	RCF	0		0	0		0		0	
Fire Service Training	2,000,000	RC2	0		0	0		0		0	
Technology Projects	943,000	TRF	1,900,000	TRF	134,000	0		0		0	
Mason City Patrol Post	-2,400,000	RCF	2,400,000	RIIF	0	0		0		0	
Regional Fire Training Facility	0		1,400,000	RIIF	0	0		0		0	
Emergency Response Training Facility	0		2,000,000	RIIF	0	0		0		0	
Total Public Safety Capital	$ 6,593,000		$ 8,260,000		$ 6,094,000	$ 560,000		$ 0		$ 0	
Regents Capital											
Regents Capital											
ISU - Renewable Fuels Building	$ 0		$ 5,647,000	RIIF	$ 14,756,000	$ 14,756,000	RIIF	$ 14,756,000	RIIF	$ 11,597,000	RIIF
SUI Hygienic Laboratory	8,350,000	RIIF	15,650,000	RIIF	12,000,000	12,000,000	RIIF	12,000,000	RIIF	0	
Fire Safety and Deferred Maint	0		1,000,000	VIF	50,000,000	10,000,000	RIIF	0		0	
SUI Center for Regenerative Medicine - Inst for Biomed Disc	0		10,000,000	RIIF	10,000,000	10,000,000	RIIF	10,000,000	RIIF	10,000,000	RIIF
*Tuition Replacement***	10,329,981	RIIF	10,329,981	RIIF	0	0		0		0	
ISU-Veterinary Lab	2,000,000	RIIF	600,000	VIF	0	0		0		0	
Major Renovation/Repairs	6,200,000	RIIF	0		0	0		0		0	
Major Renovation/Repairs	10,000,000	RC2	0		0	0		0		0	
Bioscience Infrastructure	5,000,000	VIF	0		0	0		0		0	
Bioscience Infrastructure	1,800,000	RIIF	0		0	0		0		0	
Endowments and Salaries	5,000,000	RIIF	0		0	0		0		0	
Bioscience Program	8,200,000	RIIF	0		0	0		0		0	
Novel Proteins Facility	1,000,000	RIIF	0		0	0		0		0	
UNI - Playground Safety	500,000	RIIF	0		0	0		0		0	
UNI - MyEntreNet	0		235,000	TRF	0	0		0		0	
Total Regents Capital	$ 58,379,981		$ 43,461,981		$ 86,756,000	$ 46,756,000		$ 36,756,000		$ 21,597,000	
Revenue, Dept. of											
Revenue, Department of											
SAVE Appropriation	$ 10,000,000	RIIF	$ 10,000,000	RIIF	$ 10,000,000	$ 10,000,000	RIIF	$ 10,000,000	RIIF	$ 10,000,000	RIIF
Total Revenue, Dept. of	$ 10,000,000		$ 10,000,000		$ 10,000,000	$ 10,000,000		$ 10,000,000		$ 10,000,000	

Infrastructure and Technology Appropriations Recommendations - All Infrastructure Funds

	Actual 2007		Estimated FY 2008		Dept Request	Gov Rec FY 2009		Appropriations Previously Enacted			
	Appropriation	Fund	Appropriation	Fund	FY 2009	Recommendation	Fund	FY 2009	Fund	FY 2010	Fund
Secretary of State											
Secretary of State											
Voting Machine Reimburse	$ 0		$ 2,000,000	RIIF	$ 0	$ 0		$ 0		$ 0	
Total Secretary of State	$ 0		$ 2,000,000		$ 0	$ 0		$ 0		$ 0	
State Fair Authority Capital											
State Fair Authority Capital											
State Fair Capitals	$ 1,000,000	RC2	$ 0		$ 0	$ 0		$ 0		$ 0	
Agri. Exhibition Center	0		3,000,000	RIIF	0	5,000,000	RIIF	0		0	
Total State Fair Authority Capital	$ 1,000,000		$ 3,000,000		$ 0	$ 5,000,000		$ 0		$ 0	
Transportation Capital											
Public Transit Infrastructure	$ 2,200,000	RC2	$ 2,200,000	RIIF	$ 2,200,000	$ 2,200,000	RIIF	$ 0		$ 0	
Recreational Trails	2,000,000	RC2	2,000,000	RIIF	3,000,000	2,000,000	RIIF	0		0	
Commercial Air Service	1,500,000	RC2	1,500,000	RIIF	1,500,000	1,500,000	RIIF	0		0	
General Aviation Grants	750,000	RC2	750,000	RIIF	1,500,000	750,000	RIIF	0		0	
*Rail Revolving Loan & Grant Fund***	235,000	RIIF	2,000,000	RIIF	2,000,000	0		0		0	
Aviation Improvements	564,000	RIIF	0		0	0		0		0	
Aviation Authority Assistance	0		20,000	SAF	0	0		0		0	
Total Transportation Capitals	$ 7,249,000		$ 8,470,000		$ 10,200,000	$ 6,450,000		$ 0		$ 0	
Treasurer of State											
Treasurer of State											
County Fair Improvements	$ 1,060,000	RIIF	$ 1,590,000	RIIF	$ 1,590,000	$ 1,590,000	RIIF	$ 0		$ 0	
Prison Infrastructure Bond Debt Service	5,416,604	RIIF	0		0	0		0		0	
Total Treasurer of State	$ 6,476,604		$ 1,590,000		$ 1,590,000	$ 1,590,000		$ 0		$ 0	

Infrastructure and Technology Appropriations Recommendations - All Infrastructure Funds

	Actual 2007		Estimated FY 2008		Dept Request	Gov Rec FY 2009		Appropriations Previously Enacted			
	Appropriation	Fund	Appropriation	Fund	FY 2009	Recommendation	Fund	FY 2009	Fund	FY 2010	Fund
Veterans Affairs Capitals											
Veterans Affairs Capital											
Veterans Home	$ 6,200,000	RC2	$ 532,000	RIIF	$ 20,555,329	$ 20,555,329	RC3	$ 0		$ 0	
*Home Ownership Program***	0		1,000,000	RIIF	1,600,000	0		0		0	
Veterans Affairs Capital Improvements	0		0		180,000	0		0		0	
Veterans Affairs Technology	0		0		15,000	0		0		0	
Total Veterans Affairs Capitals	$ 6,200,000		$ 1,532,000		$ 22,350,329	$ 20,555,329		$ 0		$ 0	
Total Transportation, Infrastructure, and Capitals*	$ 273,438,754		$ 272,014,442		$ 695,407,003	$ 499,065,776		$ 171,485,000		$ 90,254,100	

*The totals have been adjusted in order to avoid double counting due to the reflection of the standing appropriations from RIIF to VIF in the spreadsheet as well as the appropriations out of VIF. These totals do include the RIIF standing appropriation to the Environment First Fund.

**Items in italics are the appropriations that the Governor is recommending moving from RIIF to the General Fund in FY 2009.

Funding Sources

ENDW = Endowment for Iowa's Health Account
FES = Federal Economic Stimulus Fund
PBF= FY 2009 Prison Bonding Fund
RC2 = Endowment for Iowa's Health-Restricted Capitals Fund
RC3 = FY 2009 Tax-Exempt Restricted Capital Fund
RCF = Restricted Capital Fund - Tobacco Settlement Trust Fund
RIIF = Rebuild Iowa Infrastructure Fund
SAF = State Aviation Fund
TRF = Technology Reinvestment Fund
VIF = Vertical Infrastructure Fund