

MINUTES

Skilled Worker Shortage Study Committee

September 24, 2007

MEMBERS PRESENT:

Senator William A. Dotzler, Jr., Co-chairperson Senator Brian Schoenjahn Senator Roger Stewart Senator Pat Ward Senator Brad Zaun Representative Roger Thomas, Co-chairperson Representative Doris Kelley Representative Dawn Pettengill Representative Art Staed Representative Jodi Tymeson

MEETING IN BRIEF

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Minutes prepared by: Amanda Knief, Legal Counsel, (515) 281-6048

- I. Procedural Business.
- II. Business and Industry Views of the Skilled Worker Shortage.
- III. Departmental Action to Correct the Skilled Worker Shortage in Iowa.
- IV. Community Colleges' Perspective on Skilled Worker Shortage Solutions.
- V. Community Colleges and Business Collaborative Programs.
- VI. Materials Filed With the Legislative Services Agency.



I. Procedural Business.

Overview. The initial meeting of the Skilled Worker Shortage Study Committee was called to order at 10:03 a.m. on September 24, 2007, in Room 22, at the Statehouse. Temporary co-chairpersons Senator Dotzler and Representative Thomas were elected permanent co-chairpersons of the Committee. The proposed rules were adopted by a voice vote. Upon conclusion of the presentations and discussion by the Committee, the meeting was adjourned at 4:03 p.m.

Next Meeting. The next meeting of the Committee is scheduled for Monday, October 15, 2007, at 10:00 a.m. in Room 103, the Supreme Court Chamber, at the Statehouse.

II. Business and Industry Views of the Skilled Worker Shortage.

A. Rockwell-Collins.

Overview. Mr. Rod Dooley, Senior Director of Talent Acquisition and Learning Development at Rockwell-Collins, addressed the concerns and plans of Rockwell-Collins relating to the skilled worker shortage the company is facing. He used a PowerPoint presentation with his testimony.

Rockwell-Collins builds and creates communications and aviations electronics systems for commercial and military applications worldwide. The company had \$4.3 billion in sales in fiscal year 2007. The high growth areas of the company include transformational defense communications, information management, and service and support. The company employs almost 19,000 people worldwide at 77 locations in 21 countries. The company's lowa workforce is about 10,000 and growing in Cedar Rapids, Coralville, Manchester, Decorah, and Bellevue. It is lowa's number one technology company, employing more than 3,600 engineers, scientists, and information technology workers. Of the 4,300 positions open in the company in 2007, 1,400 of them were filled in lowa.

Reasons for Gap. Mr. Dooley stated the following reasons for the skilled worker and talent gap:

- Aging of the industrialized world;
- Declining birth rates;
- · Declining college graduation rates; and
- Growing dropout rates in both college and high school.

Mr. Dooley said that Rockwell-Collins is particularly focused on addressing the last two. In 2012, the United States will need 18 million new college graduates, but will be 6 million short; especially in the field of computer science, where the numbers of students declaring computer science as their major has continually dropped and is 39 percent lower than in 2000. The company is focusing on the people who start college but drop out, seeing this group as a growth area for skilled workers.

Mr. Dooley emphasized to the Committee that recruiting talent alone will be insufficient because demand outweighs supply. By 2020, immigration will account for virtually all of the United States net workforce growth. The ability to bring in quality immigrant workers is severely restricted by



immigration caps which are reached earlier each year. Additionally, the United States population is declining between the ages 35-44, which is the talent pool for leadership positions. Companies struggle when hiring mature workers whose skills are obsolete due to the pace of technology; companies are unwilling to hire professionals lacking degrees; and companies are reluctant to look outside the traditional industry standard to look for skills. All of this will have to change in order to meet the demand for workers.

Business Solutions. Mr. Dooley gave the following examples of how the company can help solve its talent gap problems:

- Grow a development department to seek out individuals with appropriate skills;
- Extend the productive life of aging workers (to slow the impact of retiring baby boomers);
- Reduce the attrition of Generation Y employees by providing a means for them to manage their own development;
- · Assist nondegreed and alternative-degreed workers in building skills to allow the company to tap into nontraditional talent pools; and
- Prepare individual contributors for future leadership roles.

Legislative Strategies. Mr. Dooley suggested that lowa's legislature could help in the following ways:

- Continue focusing on improving graduation rates, both high school and college;
- Enhance initiatives to address the science, technology, engineering, and math (STEM) pipeline:
- Enhance initiatives and education to ensure that diverse talent is developed; and
- Create partnerships with industry to ensure proper programs are in place to prepare students for the workforce.

В. Deere & Company.

Overview. Mr. Don Dedobbelaere, Manager of Global Learning & Development at Deere, told the Committee that the company is facing a shortage of workers with advanced manufacturing skills. Deere, with more than 12,000 employees, is the largest manufacturing employer in the state. Mr. Dedobbelaere said that 32 percent of Deere's salaried engineers can retire in five years; 35 percent of its salaried engineers have less than five years of experience; and 11 percent of its engineers will resign or move on in the next five years.

Mr. Dedobbelaere stated that manufacturing jobs are misunderstood; they are not just pushing a button or pulling a lever. Deere needs people with skills to program a machine to do a job and constantly make adjustments. Deere also needs people who can fix the machines when they break down because when one machine is not working, the whole line stops and money is lost. Deere also needs engineers, especially those who are multilingual, particularly in Spanish, Portuguese, Mandarin, and Russian.

Legislative Strategies. Mr. Dedobbelaere told the Committee that Deere recognizes that this is a complex issue, and offered the following suggestions to improve the situation:



- Enhance existing programs and create new programs in machining, production and maintenance welding, and assembly;
- Assist community colleges with obtaining instructors, equipment, and programs;
- Provide community colleges with stability and continued support for job training programs offered to employers throughout the state;
- Shorten the cycle times for student completion of community college programs for skilled trade programs (eliminate unnecessary courses); and
- · Create an lowa source for welding engineering.

C. Source Allies.

Overview. Mr. Matt Vincent is President of Source Allies, a small information technology firm in Des Moines. Mr. Vincent discussed the shortage of computer and software workers in the state. The five-year-old company employs about 20 software developers with between eight and 12 years experience in software development. The company focuses on providing assistance and support in the form of consulting to mortgage and health care businesses. The company has begun to license some products for sale.

Problem. Source Allies cannot keep up with the demand for its business. The company employees as a group spend a lot of time interviewing. The employees seek out individuals with a passion for software development, not necessarily those with the highest level of education or the most experience. Mr. Vincent stressed that there is a vicious cycle: a shortage of workers, salaries are pushed higher, and workers follow the money, resulting in a bigger push to find new workers, and the cycle begins again.

Discussion. In response to questions from the Committee, Mr. Vincent stated that the company has hired individuals with degrees from community colleges because the focus is on the individual and that person's passion for the work and his or her desire to improve. The company, which only works in the Des Moines area, recently took an intern from Iowa State University. This intern had previous experience working on software development, and so was a good fit. Mr. Vincent said this was a new approach for the company and was taken due to old ways of recruiting not working. For example, a Monster.com search, which can cost \$10,000, often yields only immigrant workers who have limited work visas and are unable to work in Iowa. Internet employment searches show how scarce the kind of worker the company wants really is. Much of the company's hiring is done by word-of-mouth because qualified individuals do not want to be bombarded by offers by strangers and strange companies resulting from a general listing.

Mr. Vincent stated that he believes the quality of the university graduates, rather than the quantity graduating, is the problem his company faces.

Mr. Vincent recommends that the state work to reverse the trend of people leaving the state. He said that it is harder to start a company and hold it together with so many people leaving the state.

D. M's Machine & Manufacturing.



Overview. Ms. Candace Drahn, Vice President of Business and Marketing at M's Machine & Manufacturing in Monona, discussed the inability of the company to expand its business due to a lack of skilled workers, the reasons behind the shortage, and possible solutions for the shortage.

Problem. Ms. Drahn told the Committee that manufacturing has become more high tech and skilled-based as the more repetitive, less-skilled work is moved abroad. This gap threatens the viability of United States manufacturers at a time when they are facing heavy competition overseas. The younger people available are bypassing factory jobs, viewing them as repetitive, dirty, and without much opportunity — a view that has not been helped by all the factory closings and headlines about manufacturing jobs moving abroad.

Despite the decline of manufacturing, it still proves to be a viable part of the economy. As of October 2006, 10 percent of the United States workforce was employed in the manufacturing sector and in 2005, United States manufacturing production totaled \$1.5 trillion or 12 percent of gross domestic product. The shortage of skilled manufacturing workers is largely a function of perception. It is up to the industry to change the perception of manufacturing, particularly among young people and their parents.

M's Machine & Manufacturing is experiencing this shortage. In order to stay ahead of the overseas competition, the company is becoming more high tech. Within the next two years, it will use automation by means of robots to address its overall worker shortage. The company has also experienced a lack of interest or maybe even knowledge of metal working as all of the surrounding high schools and even the technical schools have cut and will be cutting the metal working programs from their curriculums.

Training Strategy. Of its current workforce, 30 percent of the company's employees were hired with either education or previous experience pertinent to their jobs. The employee turnover is less than 1 percent; therefore, once new employees are hired and trained, the company has very little problem retaining them. However, because the majority of the workforce is unskilled, the company maintains an extensive training program for new employees. The probationary period with employees is at least 90 days and often times runs longer. Further, the company is located in a rural community and has trouble recruiting workers who hold a degree in machining. As mentioned previously, with the lack of knowledge of machining, the company has not been successful in attracting high school students to continue their education in the metal working industry.

The company has sought out training programs through the many resources available through community colleges, often times with funded grants or credits such as Code chapter 260 grants or the Iowa New Jobs Training Program. The company is also very fortunate to have training opportunities through Sandvik Coromat and Mori Seiki University. Another way to affect change would be to promote the manufacturing sector to the younger population through career day presentations or job fairs at the high school level. This would hopefully spark an interest in manufacturing that would bring back programs that have been cut from technical schools and colleges. Ms. Drahn noted that the company gets recruits from Southwest Wisconsin Technical College, which is going to cut its program, and Northeast Iowa Community College, which is also going to cut its program. Meanwhile, Iowa needs to continue the Code chapter 260E, 260F, and



260G training grants and programs and maybe even look into restructuring the lowa New Jobs Training Program to make it available to more businesses.

Discussion. During discussion with Committee members, Ms. Drahn noted that the company used to have students visit the company when there were metal-working classes at the high schools. Now that the classes have been cut, the high school officials feel that there is no time or interest in such an excursion. The company simply wants to let students and young people know that there is another option besides sitting behind a desk, which could encourage them to stay in school and go on to college for another year — for a purpose.

Ms. Drahn explained that the company began as a machine repair shop in 1981 and was associated with Deere & Co. In 1989, it was bought by the current female owner and began to grow as a manufacturing company — still associating with Deere. In 2000 the company built an addition; another addition was built in 2006. The workforce consists of 27 employees.

III. Departmental Action to Correct the Skilled Worker Shortage in Iowa.

A. Department of Economic Development (DED).

Battelle Institute Reports. Ms. Karen Merrick, Targeted Industries Division Administrator, DED, discussed the results of the Battelle reports commissioned by DED. The department commissioned the Battelle Memorial Institute's Technology Partnership Practice to outline strategies for enhancing lowa's biotechnology, advanced manufacturing, and information technology sectors, using input from industry and government leaders from across the state. The reports all showed a need to find skilled workers and foster a more diverse workforce in lowa. A positive result from taking action now includes being seen as an innovator in an industry, such as biofuels, making it easier to recruit new talent to the state. The reports also found a serious lack of management talent in the state pipeline and a need to speed up the time that information technology training takes place in community colleges as well as private and public universities and colleges.

The reports also show that lowans are not aware of many career opportunities available to skilled workers or the educational requirements needed for these positions. There are fewer enrolling in the programs offered at the universities and community colleges that do offer them and there is anecdotal evidence of poor public perception of the industry. A lack of focus in the K-12 system and in higher institutions on these kinds of opportunities hampers the ability of companies to find skilled workers. Articulated agreements between community colleges and four-year institutions are necessary so that students are not losing time, money, and credits on classes, and not lengthening the cycle time of getting a degree and getting into the workforce. Also, a strategy of cluster development of an industry and recruiting is a great approach to bringing new talent to the state. It shows workers there are multiple options and job security in a particular industry if they choose to relocate — they are not stuck in one particular job because it is the only employer of that kind in the area or state.

Career Programs. Ms. Mary Klemesrud, Program Manager at DED, discussed two specific program to assist the skilled worker shortage. The first is to spend \$250,000 to partner and



leverage to get information out about biotechnology and advanced manufacturing, especially in middle schools and high schools to dispel myths and educate about the skills needed and benefits of such a career. This program needs business and industry leaders and workers to visit and be visible in the schools to talk to the students to make the jobs real. The second program is to spend \$130,000 funding student competitions in targeted industries, such as cyber defense and robotics. These types of competitions develop students' skills and forge connections between students and employers. The competitions also raise the visibility of the industry and the jobs within it.

Skilled Employee Outreach. Ms. Kay Snyder, Communications Manager at DED, discussed how the department is reaching out to ex-lowans and marketing the state to draw new residents. Ms. Snyder described the lowa Careers Consortium (ICC), a public-private partnership created to meet lowa's need for highly skilled employees. Two of its specific missions are to market lowa differently, in a way to appeal to younger people, and to appeal to regional groups in a way that attracts new residents to rural lowa. One group targeted by DED is more than 215,000 alumni who have left the state. The traditional avenues of mailings and alumni receptions continue, but the ICC is seeking new ways to draw these alumni's attention back to the state.

A second target audience is minorities. The DED is conducting concentrated multicultural campaigns, going to different places geographically to seek new talent, exploring international markets, and running diversity campaigns in other markets. All of this is an effort to increase the diversity of lowa's workforce. Lastly, DED is continuing to focus on students. In January, a website targeted at students and young professionals will launch that will include not only employment information, but also provide social networking. This will provide a peer-to-peer level of communication to encourage discussion of job opportunities and mentoring.

Discussion. In response to questions from the Committee, Ms. Merrick stated that the Battelle Alliance membership consists of 55 people; a mix of business professionals, academics, and government officials. The Governor required that each member be an active participant in the process.

Ms. Merrick observed that developing partnerships with other state agencies to assist in informing guidance counselors and other school officials and community colleges would be key to helping high school students know what education they need to do skilled jobs. The problem is that for some of these programs there are no students, so effort must be made to get students into the pipeline.

Ms. Merrick stated that Iowa needs engineers, software developers, and skilled workers in manufacturing, but that there is not a job for every child no matter their skills. However, employers are not tapping the potential of the skills of the people available in the job market either. Training, retraining, and flexibility are all important for employers to fulfill their worker needs. Ms. Merrick stated that there is a real opportunity now to change the way we think about schooling, recruitment, workers, and skills in a manner that hasn't existed before because the innovation and technology of today did not exist even 10 years ago.

Ms. Snyder noted that the foundation message for the recruitment of alumni around the nation has always been the quality of life. What has changed are the factors that are stressed based on what



is important to alumni in different stages of their lives. The department keeps alumni up-to-date on what is happening in business and recreation in the state.

Ms. Merrick noted that \$250,000 was allocated to pay for tuition or for internships to help the smaller companies that cannot afford to provide the moneys themselves.

B. Department of Workforce Development (DWFD).

Overview. Ms. Elisabeth Buck, newly appointed Director of the DWFD, briefly addressed the Committee, suggesting possible programs to implement that would include: an ex-offender program; women, workforce, and money; lifelong learning accounts; competitive skills scholarships; additional veteran's services; and assistance with retaining lowa graduates.

Education Needs — Departmental Services. Ms. Paula Nissen, Manager of Strategic Initiatives Unit at DWFD, briefly addressed the Committee. Ms. Nissen told the Committee that right now there are enough students graduating with four-year degrees to meet the immediate needs, but what employers in the state need most are employees for technical jobs that only need a two-year degree or less. Ms. Nissen said that DWFD can provide communities with laborshed studies, which assess workforce availability, and workforce needs assessments, which assess current and future job vacancies. These surveys give Iowa and its communities the ability to document and illustrate the characteristics of the labor force, which in turn has proven to be a unique and effective tool for retaining and expanding businesses while also attracting prospective new employers into the area.

Persons With Disabilities. Ms. Mary Lynn ReVoir, Lead Navigator of the Disability Navigator Program at DWFD, discussed putting Iowans with disabilities to work. Disability Navigator was created to respond to the workforce shortage, in particular to assist job seekers with disabilities to seek and maintain employment; enhance the workforce system to serve customers with disabilities; and assist employers to recruit, hire, and retain persons with disabilities as part of their workforce. Ms. ReVoir told the Committee that 193,000 people between ages 21 and 64 in Iowa have disabilities, which is 11.6 percent of the population. This service is meant to assist existing workforce programs which experience high incidences of persons with disabilities, such as Family Investment Program recipients, veterans, ex-offenders, and mature workers. It was also created to assist employers with job accommodations, federal Americans With Disabilities Act compliance, tax incentives, disability etiquette and other training, and other resources and tools to embrace a diverse workforce.

Technology Solutions. Mr. Todd McGee, Program Planner 3 at DWFD, discussed innovative technology solutions for recruiting people to the state. Mr. McGee said that the Internet and online technology is the biggest challenge and opportunity for lowa to recruit new workers. Mr. McGee specifically mentioned Facebook and Second Light websites as places where employers and states have already begun interfacing with internet users. He also discussed the use of data, including licensing, registration, and inspection. Mr. McGee also told the Committee about a biotechnology talent pipeline that Missouri and Kansas had agreed to along the I-70 corridor. Iowa



and Nebraska have now sought to make this a four-state talent pipeline and are in talks to make it work.

C. Department of Education (DOE).

Overview. Dr. Jan Friedel, Community Colleges and Workforce Preparation Division Administrator at DOE, spoke to the Committee about the DOE initiatives to support efforts to instill in the new workforce entrants of Iowa and the incumbent workforce the knowledge and skills necessary for the high-skilled global economy. The initiatives include: the development of our state plan for federal Perkins IV; Project Lead the Way (PLTW); Math-in-Career and Technical Education; the National Career Clusters Project; and the connections between high school and community college career and technical education (CTE) programs.

Community College Programs. Dr. Friedel told the Committee that in 2006, 121,753 students were enrolled in community college credit courses and programs and 287,073 individuals were enrolled in noncredit courses. About 41 percent of the community college credit enrollment is in CTE programs, with the largest number of these programs enrolled in the health occupations, followed by business, and then industrial technology programs. Community colleges may conduct their own surveys and assessments, and every program utilizes an advisory committee of local and regional employers in the development, evaluation, and revision of career and technical programs. Regions of the state have unique programs, identified through the regional assessments developed by the community colleges. Examples include: power line at Northwest Community College; wind energy at lowa Lakes Community College; and laser optics at Indian Hills Community College.

In October 2005, the Division of Community Colleges and Workforce Preparation formed a state leadership team for PLTW, a national model for a linked middle/high school/college of engineering curriculum. Under the leadership of the division, both the University of Iowa and Iowa State University Colleges of Engineering became affiliated. Iowa's implementation includes an important role for community colleges. The Kern Foundation in Wisconsin has been of great financial assistance to our schools, enabling Iowa teachers to participate in the required training and professional development. Today Iowa has 61 sites that are providing PLTW courses.

In recognition of the need to have greater integration of academies of CTE, and in response to the accountability measure related to the math performance of CTE students in Perkins IV, the division is working with its K-12 counterparts, community colleges, area education agencies, high schools, and other statewide math and CTE professional development initiatives to implement the national Math-in-Career and Technical Education Project. This year will involve awareness building and initial training of teachers, with implementation beginning next year.

Concerns. Dr. Friedel warned the Committee that many community college programs are operating at capacity. A study of programs needed but for which the community colleges are unable to offer due to a lack of facilities, equipment and technology, or faculty expertise include: rapid prototyping, laser technology, robotics/automation, public safety training, environmental studies, radiology technician, optometric technician, certified occupational therapy assistant, physical therapy assistant, video production certificate, and applied automotive technician. All the community colleges report that they have more qualified applicants than capacity permits for health



occupations programs. Student demand also exceeds program capacity in the areas of climate control, welding, web design, software testing, automotive technology, power-line technology, civil and construction engineering, engineering technology, building trades, culinary arts, electrical construction trades, heating ventilation and air conditioning, hotel and restaurant management, veterinarian assistant, diesel agricultural technology, graphic design, mortuary science, information technology network administration, and computer-aided drafting and design.

Teaching Strategies. Mr. Kevin Fangman, Prekindergarten-12 Education Programs Division Administrator at DOE, discussed new strategies to challenge children to think more creatively and to encourage their interest in math and science. Mr. Fangman also discussed focusing on teaching strategies and improving teacher application of collaborative learning methods so that all students have beneficial experiences from these exercises.

Discussion. In response to members' questions, Dr. Friedel noted that there are tools in place to help integrate information to assist guidance counselors in high schools. Dr. Friedel also stated that e-portfolio is web-based and that students can access and modify it for as long as they wish to maintain it — through college and beyond. She also observed that program undercapacity at community colleges is a national problem.

IV. Community Colleges' Perspective on Skilled Worker Shortage Solutions.

Dr. Robert Denson, President of the Des Moines Area Community College, told the Committee that capacity is the major issue. Dr. Denson stated that there are four-year waiting lists. Dr. Denson asked the Committee to help the community colleges build capacity so that the community colleges can draw in students.

Dr. Barbara Crittenden, President of Southwestern Community College (SCC), highlighted the problem of capacity in two ways: waiting lists for existing programs and the need for new programs to be added. For example, in the area that SCC serves, both a machinist program and electrical technician program are needed to meet the needs of new employees and potential employees.

V. Community Colleges and Business Collaborative Programs.

Kirkwood. Mr. Steven Ovel, Government Relations Executive Director at Kirkwood Community College (KCC), told the Committee that the future viability of lowa depends on its ability to respond to this shortage, and that community colleges are strategic assets because they are affordable, accessible, and high quality. Mr. Ovel explained to the Committee that community colleges are actively engaged with businesses in creating joint programs to meet the needs of the communities and the businesses. Mr. Ovel expects that an investment of \$40-\$60 million in lowa's community colleges is necessary in order to address capacity issues.

Midwest Metal Products. Mr. Joe Chiaramonte, Plant Manager at Midwest Metal Products, Co., shared with the Committee the formation of a specific certificate program with KCC to create a pool of employees for the company. The company was turning away business, as much as 30 percent, because it couldn't find enough skilled workers. Mr. Chiaramonte noted that the company advertises in newspapers, online, radio, and visits the high schools, but is disappointed that tech

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programs have disappeared. Mr. Chiaramonte said the U.S. Department of Labor now allows apprentices at the age of 16 and there are camp programs for children in middle school, so they are trying to teach children at any age and as early as possible to be interested in the field.

Hawkeye. Mr. Al Clausen, Director of Industrial and Continuing Education at Hawkeye Community College (HCC), told the Committee that in northeast lowa employers are telling him that two-year degrees are not necessary and that it is more important to shorten the time between when the student enters the program and when the student completes the program.

Discussion. In response to questions from Committee members, Mr. Ovel stated that only the plant fund levy money has been used for infrastructure needs, and in the past six years the community colleges have been successful in passing bonds with the public. However, the amount of the bonds passed versus the costs of starting a program or increasing the size of a facility are inequitable, and there is no point in starting a program if the materials and facilities are not state-of-the-art so that the students can walk right into jobs.

Mr. Ovel stated that there are definite instructor shortages. The community colleges use adjuncts as stopgaps, and must hire above the salary schedule in order to get full-time qualified and specialized instructors. Mr. Ovel added that an investment needs to be made in teacher training. Most of the instructors come from companies and businesses — the places the students will go to work.

Co-chairperson Dotzler commented that the estimate that lowa will be 150,000 workers short in 2012 seems improbable because today's presentations indicate that lowa is already short on workers. The state is losing work and companies are being stifled because of it. The real issue that has come to light today is that there is a skilled worker education shortage.

VI. Materials Filed With the Legislative Services Agency.

The following materials listed were distributed at or in connection with the meeting and are filed with the Legislative Services Agency. The materials may be accessed from the <Additional Information> link on the Committee's internet page:

http://www.legis.state.ia.us/aspx/Committees/Committee.aspx?id=219.

- 1. "Skilled Worker Shortage," Rod Dooley, Rockwell-Collins.
- 2. "Deere & Company: Future Skills Needed," Don Dedobbelaere, Deere & Co.
- 3. "Meeting the Workforce Needs of Today and Tomorrow," PowerPoint presentations by Paula Nissen, Mary Lynn ReVoir, Todd McGee, and Elisabeth Buck, DWFD.
- 4. "Building a Quality Workforce: Targeted Industries HF 829 FY 2008," Information Sheet, DED.
- 5. "Building a Quality Workforce: Targeted Industries HF 829 FY 2008," Graph, DED.
- 6. "Accelerated Career Education Program," Information Sheet, DED.
- 7. "Employee Training Programs," Information Sheet, DED.
- 8. "100-Day Plan Stakeholder Focus Groups," Information Sheet, DWFD.



- 9. "lowa Jobs," Information Sheet, DWFD.
- 10. "Iowa Workforce Development Provides Essential Services Affecting Nearly Every Business and Iowan," Information Sheet, DWFD.
- 11. "Job Seeker Services," Brochure, DWFD.
- 12. "Business Services," Pamphlet, DWFD.
- "Quad Cities Laborshed Area Workforce Characteristics: Advanced Manufacturing," Information Sheets, DWFD.
- 14. "Quad City Region Laborshed Analysis," Brochure, DWFD.
- 15. "Quad City Region Workforce Vacancy Assessment," Brochure, DWFD.
- 16. "Executive Summary of Heartland Talent Pipeline Proposal," Handout, DWFD.
- 17. "Skills Advantage Certificate Summary Report: Jan 1, 2006 Aug 31, 2007," Graphs, DWFD.
- 18. "Disability Program Navigator Initiative," Brochure Mary Lynn ReVoir, DWFD.
- 19. "The Iowa Navigator Program," Concept Paper Mary Lynn ReVoir, DWFD.
- 20. "2005 Disability Status Reports: Summary," Cornell University, DWFD.
- 21. "Disability Program Navigator Grantees: Format for Quarterly Narrative Reporting," Handout Mary Lynn ReVoir, DWFD.
- 22. "Take a Look...Making a Difference: Iowa Disability Program Navigator Success Stories 9th Quarter," Handout Mary Lynn ReVoir, DWFD.
- 23. "Meeting Iowa's Workforce Challenge," Comments, Judy Jeffrey, DOE.
- 24. "A Great Place to Reach Your Potential," Foldout, DOE.
- 25. "Project Lead the Way PLTW," Handout, DOE.
- 26. "Project Lead the Way Implementation by Course," Chart, DOE.
- 27. "Verbal Comments Presented by Dr. Janice Nahra Friedel," DOE.
- 28. "Legislative Skilled Worker Shortage Study Committee," Comments, Dr. Robert Denson, Des Moines Area Community College.
- 29. "Central Iowa Comprehensive Workforce System," Dr. Robert Denson, Des Moines Area Community College.
- 30. "Community Colleges of Iowa, Workforce Training and Economic Development Fund," Handout, Steve Ovel, Kirkwood Community College.
- 31. "Community Colleges of Iowa, Workforce Training and Economic Development Fund: FY 2007 Estimated Expenditures," Handout, Kirkwood Community College.
- 32. "Community Colleges of Iowa, Workforce Training and Economic Development Fund: FY 2008 Estimated Expenditures," Handout, Kirkwood Community College.



- 33. "Manufacturing a Winning Partnership," Prospective Article, Fabricators & Manufacturers Assoc., Int'l., Kirkwood Community College.
- 34. "Hawkeye Community College: Cedar Falls Center for Business and Industry," Handout, Al Clausen, Hawkeye Community College.

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