



FINAL REPORT

Skilled Worker Shortage Study Committee

January 2008

MEMBERS

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Co-chairperson
Senator Brian Schoenjahn
Senator Roger Stewart
Senator Pat Ward
Senator Brad Zaun

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AUTHORIZATION AND APPOINTMENT

The Legislative Council established the Skilled Worker Shortage Study Committee in 2007 and authorized the Committee to meet for two days during the 2007 Legislative Interim. The Committee subsequently received authorization for a third meeting. The Committee was charged with considering educational system improvements and other options to address shortages of skilled workers.



Skilled Worker Shortage Study Committee

I. September 24, 2007, Meeting

Overview. At the Committee's first meeting, members heard from persons representing companies facing skilled worker shortages; the departments of Economic Development (DED), Workforce Development (IWD), and Education (DE); and representatives from community colleges.

Companies Facing Skilled Worker Shortages

- **Rockwell-Collins.** Mr. Rod Dooley, Senior Director of Talent Acquisition and Learning Development at Rockwell-Collins, headquartered in Cedar Rapids, provided members with information related to the company's heritage, products, growth areas, research and development investments, and employee base; reasons behind the nation's talent gap, recruitment difficulties and the global nature of the talent shortage; and the importance of talent development. Rockwell-Collins provides communications and aviation electronics systems for commercial and military customers throughout the world. Sales for the company are projected to reach \$4.3 billion for 2007. The minimum educational requirement for company employees is an undergraduate degree. Management skills are in short supply. Mr. Dooley recommended continuing the focus on improving graduation rates; enhancing initiatives to address the science, technology, engineering, and math pipeline; enhancing initiatives and education to ensure that diverse talent is developed; and creating stronger partnerships with industry to ensure proper programs are in place to prepare students for the workforce.
- **Deere & Company.** Mr. Don Dedobbelaere, Global Learning and Development Manager for Deere & Company, headquartered in Moline, Illinois, identified for members the advanced manufacturing skills Deere & Company needs, including salaried employees with knowledge, expertise, and skills in engineering, robotics, weld systems and technology, advanced machining systems, and laser cutting. Production and maintenance employees with skills in manufacturing processes, such as robotics operation and maintenance systems, such as programmable logic controllers and electronics in general, are also needed. The company could not have achieved what it has without the state's public postsecondary institutions, but he suggested there is still room for improvement in the state's public postsecondary institutions. He recommended that the state create new postsecondary programs and enhance and improve existing programs with additional resources focused on the areas of machining, production and maintenance welding, and assembly. He added that community colleges need more instructors, equipment, and programs; stability and continued support for job training programs offered to employers throughout the state; and shorter cycle time for student completion of community college skilled trade programs. Finally, he stated that the state needs an "Iowa" source for welding engineers.
- **Source Allies.** Mr. Matt Vincent, President of Source Allies in Des Moines, told members that his small business could be two to three times larger if it could find and retain software developers who meet the company's high standards. The demand for software developers is so high that persons who jump from job to job can increase their income by 30 to 50 percent. The result is that the company must spend an inordinate amount of time recruiting talented people. The company needs a pool of inspired, talented software developers who



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may or may not hold a degree. Nearly all of the people responding to a recent recruiting effort were H-1B visa holders (the number of people who may immigrate under an H-1B visa is capped at 65,000 for FY 2007-2008). Ninety percent of the company's employees are from Iowa. The company employed an intern from Iowa State University (ISU) and worked with a university incubator program this year and would be willing to increase that kind of participation in the future.

- **M's Machine & Manufacturing.** Ms. Candace Drahn, Vice President of Business & Marketing at M's Machine & Manufacturing in Monona, told members that the female-owned company is growing, and could grow another 30 percent if it could hire more people with the specific skill sets needed, including welders, electricians, and machinists. The jobs are becoming evermore technological, but the perception students and their parents have is that these are dirty factory jobs. Program cuts in her rural community have also hurt the company. She noted that grants and tax credits support a lot of programs her company relies on. She recommended increasing state jobs training and accelerated career education program funding, restructuring the Iowa New Jobs Training Program to make it available to more businesses, and correcting high school students' perception of manufacturing.

Department of Economic Development. Ms. Karen Merrick, Targeted Industries Division Administrator; Ms. Gail Kotval, Program Manager; Ms. Mary Klemesrud, Program Manager; Ms. Nichole Warren, Program Manager; and Ms. Kay Snyder, Communications Manager, joined to present the Committee with information about the final report regarding Iowa's Advanced Manufacturing Strategic Roadmap prepared for DED by the Battelle's Technology Partnership Practice, state job training programs, the Accelerated Career Education Program, the Education Workforce Development Committee, the Community College Equipment and Software Fund, Project Lead the Way, the Iowa Careers Consortium, and H.F. 829 (2007), which relates to the development and commercialization of businesses in the targeted industry areas of advanced manufacturing, bioscience, and information technology.

Ms. Merrick noted that people are told not to go into information technology because the jobs are going overseas, which, she said, is a false assumption. She proposed that Iowa's citizens must meet the education requirements necessary to prepare them for opportunities as they arise. She also observed that articulation agreements between postsecondary institutions are not optimal. Ms. Kotval advised that students leaving Iowa's high schools must be better prepared to enroll in community college advanced manufacturing programs.

Department of Workforce Development. Ms. Elisabeth Buck, IWD Director; Ms. Paula Nissen, Manager, Strategic Initiatives Unit; Ms. Mary Lynn ReVoir, Lead Navigator, Disability Navigator Program; and Mr. Todd McGee, Program Planner 3 at IWD, provided an overview on how IWD is meeting workforce needs, including the New Iowan Centers, Disabled Veterans Outreach, IowaJobs.org, skills assessment (vacancy) survey, and the Navigator Program.

Ms. Nissen discussed planning efforts, needs assessments, workforce surveys, laborshed studies, and a partnership with DE on an upcoming effort related to education and wage record outcomes. Ms. ReVoir described the navigator initiative as a federal program created to respond to workforce shortage and assist persons with disabilities to seek and maintain employment. The federal government provides 90 percent of the funds, while the state provides a 10 percent match. Mr.



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McGee updated members about the many social networking and data opportunities offered online and through virtual reality programs, e-portfolios, the Heartland Talent Pipeline, Unemployment Insurance Call Centers, and National Career Readiness Certificates. Ms. Buck identified six potential program areas, issues, or target populations, including ex-offenders; women, workforce, and money; lifelong learning accounts; competitive skills scholarships; additional veterans services; and retaining Iowa's graduates.

Department of Education. Dr. Janice Friedel, Community Colleges and Workforce Preparation Division Administrator, and Mr. Kevin Fangman, Pre-K-12 Education Programs Division Administrator at DE, provided members with a review of some of the initiatives the department administers to support the state's need for a highly skilled workforce. Dr. Friedel spoke specifically about the development of the state plan for the federal law known as “Perkins IV”—The Carl D. Perkins Career and Technical Education Improvement Act of 2006 (Pub. L. No. 109-270)—enacted August 12, 2006, Project Lead the Way, Math-in-CTE, the National Career Clusters Project, and the connections between high school and community college career and technical education (CTE) programs.

Dr. Friedel noted that in recent years the General Assembly passed legislation (Code section 260C.18A) providing for development and implementation of career academies, using workforce training and economic development funds designed to provide a program of study consisting of courses at both the high school and community college levels to create a seamless transition to a postsecondary diploma or degree for students that is formally linked with postsecondary career and technical education programs.

Mr. Fangman described the model core curriculum and twenty-first-century learning skills, which include civic literacy, financial literacy, health literacy, technology literacy, and employability skills; Project Lead the Way, which is a national model for a linked middle/high school/college of engineering curriculum; and STEM (science, technology, engineering, and math) initiatives.

Community Colleges. Mr. Robert J. Denson, President, Des Moines Area Community College (DMACC); Ms. Barbara Crittenden, President, Southwestern Community College; Mr. Steven Ovel, Government Relations Executive Director, Kirkwood Community College; Mr. Al Clausen, Director of Industrial and Continuing Education, Hawkeye Community College; Mr. Jim Lindenmayer, President, Indian Hills Community College; and Mr. Joe Chiaramonte, Plant Manager, Midwest Metal Products, spoke to members about workforce development programs and collaborations the community colleges have with local businesses.

Mr. Denson noted that community colleges provide individuals with training in skilled trades which can result in the opportunity to earn \$40,000-\$50,000 annually. DMACC is working with central Iowa agencies and the Greater Des Moines Partnership to develop a Central Iowa Comprehensive Workforce System. All community colleges are working with high schools to help with career exploration and planning for high school students. He observed that all community colleges need increased capacity to respond to the skilled worker shortage.

Ms. Crittenden provided examples of how workforce training and economic development funds have been crucial to Southwestern's ability to increase program capacity. Mr. Ovel described state funding sources and distribution by formula to the state's 15 community colleges, DED planning requirements and the ongoing accountability process for state funding, the acceptable use of funds, targeted industry clusters, and performance reporting requirements. Mr. Lindenmayer noted



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that training programs involve large investments in equipment. Some programs may never result in the job placement levels expected, while others are very successful from the start.

Mr. Chiaramonte described his company's partnership with Kirkwood to implement training programs and establish a two-year associate of applied science degree, and how state funds, donations from various local companies, and the use of qualified operators employed by his company have made the efforts successful. Mr. Clausen, too, noted that the skilled worker programming is made possible by Iowa's investment in workforce development programs. Hawkeye is responding to businesses' immediate need for skilled workers by providing short-term, intermediate-term relief. The vision is to build a ladder concept where customers can step in and out of the educational process as needed.

II. October 15, 2007, Meeting – Testimony and Discussion

Overview. The Committee's second meeting agenda focused on preparing students, including nontraditional students, for the workforce.

Twenty-First-Century Skills and the Core Curriculum Project. Mr. Fangman; Mr. Jim Reese, Bureau of Instructional Services Chief; and Ms. Rita Martens, Lead Consultant on Development of twenty-first-century Skills Core Curriculum at the DE, provided members with information gathered by the Partnership for twenty-first-century Skills and incorporation of twenty-first-century learning skills within the Core Curriculum Project.

Mr. Fangman summarized the key findings of a nationwide poll of registered voters. The findings include the following: There is near universal agreement that teaching twenty-first-century skills is important to our country's future economic success, voters want schools to teach more than just basic skills, and voters expressed support for a broad range of twenty-first-century skills. Voters also shared their assessment of how well schools are doing in teaching twenty-first-century skills. Of the 14 skills listed, 90 percent or more of the voters ranked schools at less than nine on a 10-point scale in 12 of the skills assessed.

Ms. Martens described the purpose, status, and process of the Core Curriculum Project. The purpose of the project is to ensure that all Iowa students have access to a rigorous and relevant curriculum to prepare them for success in postsecondary education, the workforce, and the emerging global economy. Recommendations will be presented to the State Board of Education for action in April 2008.

Board of Regents Mathematics and Science Education Collaborative Initiative. Dr. Benjamin Allen, President of the University of Northern Iowa (UNI), reviewed the Board of Regents Mathematics and Science Education Collaborative Initiative, the goals of which are to improve mathematics and science performance of Iowa students, prepare more high-quality mathematics and science teachers for Iowa's schools, and promote statewide collaboration and coordination. He defined the challenges facing Iowa and the nation related to mathematics and science teacher shortages. Desired outcomes of the initiative include doubling the number of math and science teachers produced by Iowa's universities in three to five years; increasing the quality and quantity of science and mathematics coursework available to Iowa's pre-K-14 students; increasing the diversity of mathematics and science teachers; improving student performance; enhancing collaboration; and leveraging taxpayer investment in mathematics and science education.



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Dr. Allen observed that it helps to get students interested early in the profession of teaching mathematics and science and encourage them to see it as a valuable service, but, as an economist, he knows the problems of high student debt must be addressed and pay adjustments made in teacher salaries so that schools can compete in the market for mathematics and science graduates. The State Board of Regents will request \$5.5 million in state aid for the initiative, which includes funding for paid internships for FY 2008-2009.

Dual Enrollment. Dr. Michael C. Morrison, President, North Iowa Area Community College (NIACC), provided documents outlining dual enrollment partnerships with high schools and proposing dual enrollment recommendations. Dual enrollment programs outcomes are positive and the programs should be regarded as prototypes ready to be scaled up. The programs are especially valuable to students enrolled in rural high schools. Dr. Morrison thanked the General Assembly for providing \$2.5 million in annual funding (see Code section 469.10(3)) for workforce training and economic development programs and projects authorized under Code section 260C.18A, established in 2003. He noted that career academies and career pathway programs are efforts in place that help community colleges reach out to students who are not interested in an undergraduate degree. Dr. Morrison recommended that the General Assembly enact the following:

- An additional \$12.9 million for state general aid to community colleges.
- Phase-in a reliable and permanent fund (\$40 million to \$60 million) over a period of years for community colleges to plan and utilize to meet Iowa's critical workforce needs.
- Flexibility for community college boards to access local tax support to address critical workforce shortage issues.

Academic Performance of Community College Students. Mr. Greg Schmitz, President, Hawkeye Community College, described the associate of arts (AA) articulation agreement, sometimes called a 2+2 agreement, between community colleges and the regents universities. The agreement stipulates the requirements for an AA degree. A student who fulfills the requirements and maintains a 2.0 grade point average on all graded arts and sciences courses can enroll. Dr. Morrison noted that something must be done to remedy the problem experienced by students who graduate with an AA in business and find that their degree does not necessarily transfer. Admittance and the transfer of credits for students who have not completed the AA degree requires a course-by-course evaluation of the student's transcripts. He also noted that a 120-hour welding (an identified skills shortage area) program recently begun by the community college is totally filled. Both Dr. Morrison and Mr. Schmitz noted that companies are partnering with community colleges more and more to educate the companies' employees.

Association of Iowa Workforce Partners (AIWP). Mr. Jerry Smith, Executive Director, Region 14, Matura Action Corporation; and Ms. Cathy Wiebel, Director, Region 9, Iowa@Work, advised members that, according to the IWD, manufacturing is still the state's top industry and the Iowa economy is projected to add more than 216,000 new jobs over the 2004-2014 time period. The AIWP is a group of workforce practitioners, including state agencies, community colleges, councils of government, community action agencies, and community service providers that shares best practices to improve the quality and quantity of workers and workforce services. Partners administer and operate federal programs for low-income adults, dislocated workers, and at-risk youth.



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Each of the 15 AIWP regions in the state operates a One-Stop Workforce Development Center for job seekers and employers. Funding for such programs and purposes are investments that yield high returns. Tuition assistance is important, but there is much need for remedial assistance for dislocated workers who have not been in an educational environment for many years. When a plant closes, community colleges must react swiftly to provide retraining. There are census tracts where only 20 percent of the people have a high school diploma or equivalency diploma, resulting in the need for programs that focus on lower skilled people in low-paying jobs.

Mr. Smith and Ms. Wiebel recommended development of an accelerated skills training fund for distribution of aid to regions based on factors such as unemployment rate, job growth, and shortages; and the creation of opportunities for at-risk youth to learn about and prepare for work in high-demand fields.

Liaison Advisory Committee on Transfer Students. Ms. Robin Shaffer Lilienthal, Vice Provost, Iowa Valley Community College; and from ISU, Mr. Marc Harding, Director of Enrollment Services, and Ms. Laura Doering, Senior Associate Registrar and Director of Transfer Relations, reviewed the ongoing efforts by community colleges and regents universities to reach course equivalency and program agreements. Ms. Shaffer Lilienthal described the purpose of the committee and reviewed the various agreements.

Ms. Doering noted that in response to the requirement in S.F. 601, enacted during the 2007 Legislative Session, the Board of Regents and DE have teamed together to create a Web Articulation Committee that plans to have a user-friendly credit transfer and articulation web site operating by July 1, 2008, which will allow Iowans to know at the time of enrollment in a community college whether the course credit will be accepted by the regents university of the student's choice, the category in which the university will apply the credit, and to which degree program or programs the university will apply the credit. The web site will allow community college students to enter courses and see how the courses will apply at regents universities and other Iowa institutions. A web site already available to students can be found at www.transferiniowa.org. Ms. Doering also noted that students transferring to ISU from a community college can enter into an admissions partnership program, which connects students with advisors at both schools.

Coordinating Council for Post-high School Education. Ms. Diane Gonzalez, Permanent Secretary to the Coordinating Council and Policy and Operations Officer for the State Board of Regents, described the council and its functions. The council is a voluntary association of higher education boards and institutional leaders made up of 25 voting members representing two- and four-year colleges and universities and schools, public and private, for-profit and nonprofit, offering higher education programs. The main functions of the council are coordinating postsecondary programs and gathering data. The council provides a forum for statewide cooperation, especially with regard to the establishment of new programs which may be duplicative or have a negative effect on existing programs. Its current activities include the use of e-transcripts and the reauthorization of the federal Higher Education Act.

Discussion. Committee members discussed the need for a third meeting. Co-chairperson Thomas noted that a third meeting would allow the Committee to reflect on the following three strategies he proposed: (1) funding, (2) workforce education, and (3) aligning state policies across workforce efforts. Co-chairperson Dotzler noted that he would like IWD to provide the Committee with more data.



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III. November 19, 2007, Meeting

Overview. At this, the third and final meeting, the Committee focused on the impact of skilled worker shortages on Iowa's economic base, apprenticeship programs, and the opportunities and barriers relating to employment of mature workers. The Committee invited additional testimony from DED and Rockwell-Collins representatives.

Department of Economic Development. Mr. Michael L. Tramontina, Director, DED, addressed human capital management, changes in the Iowa labor force from 2005 to 2006, and the slight increase in total state postsecondary institution enrollment of minority students. He recommended efforts to increase underrepresented populations in postsecondary training and education, provide internships during school and summers, showcase postsecondary employment opportunities, encourage college loan payment by private employers with state assistance, increase opportunities for civic engagement, identify business requirements for future opportunities, retool Code chapter 260F (*Iowa Jobs Training Act*) to better serve the targeted populations, expand state assistance to apprenticeship programs, allow training funds for English-as-a-Second-Language classes, tie postsecondary state assistance to workforce needs, educate parents about future employment opportunities, accelerate Main Street Iowa Program grants to leverage private investment, enhance recreational opportunities such as bike and water trails, tie the Workforce Housing Initiative to economic growth, and showcase diversity with Community Cultural Grants.

Professional Developers of Iowa. Ms. Maureen Elbert, President, Professional Developers of Iowa (PDI) and Executive Director, Kossuth/Palo Alto Economic Development Corporation; Mr. Jim Gossett, Executive Director, Carroll Area Development Corporation; and Mr. Jason White, Legislative Chair of PDI and Executive Director, Midwest Partnership Corporation, presented information about PDI and the statewide Laborshed Studies Program, described the successful Kossuth County Intern Program, and presented the following PDI recommendations:

- Bolster the state's jobs training programs (Code chapters 260E and 260F); the state's community enhancement programs, such as Vision Iowa, Community Attraction and Tourism, and Main Street Iowa; and other state programs that involve workforce training.
- Empower regional workforce investment boards to coordinate workforce programs in their regions, communicate these programs to job-seekers and employers, assess gaps in existing services, and creatively develop solutions; and grant the boards the funding and decision-making authority to make a difference.
- Provide visibility to current workforce programs through enhanced marketing.
- Recognize the regional IWD offices as the point-of-contact for workforce development programs in the region.
- Extend funding for the regional marketing program initiated several years ago by DED to allow for expanded regional workforce efforts.
- Consider establishing and assessing two regional pilot areas (one rural-based and the other based in an urban area) that implement the above objectives.

Apprenticeship Programs. Mr. Richard Moon, Director of Training, Iowa Electrical Apprenticeship for International Brotherhood of Electrical Workers (IBEW) Locals 347, 231, 288, and 704, Des Moines, and former Office of Apprenticeship State Director, United States



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Department of Labor (DOL), noted that registered apprenticeship programs and enrolled apprentices are often supported by a coalition of management, labor, and government. The programs offer well-paying jobs, marketable skills, and formal certification to apprentices upon completion of the programs. He recommended that efforts be made to increase awareness in the value of apprenticeship in Iowa. He provided the Committee with a list of the apprenticeship programs officially recognized by DOL's Office of Apprenticeship.

Mr. Tom Fey, representing the Central Iowa Building and Construction Trades Council, introduced Mr. Mike Wilcher, Financial Secretary-Treasurer and Business Manager, Iron Workers Local 111, Rock Island, Illinois; Mr. Bob Veal, Apprenticeship Coordinator, Heartland Regional Council of Carpenters, Des Moines; and Mr. Robert Gilmore, Business Manager, International Union of Painters & Allied Trades District Council 81, Des Moines. Mr. Gilmore described Local Union 246's painting and drywall finishing apprenticeship program and the issues facing the industry, including increasing costs of training, and the seasonal nature of the construction business. He recommended fully funding high school vocational education programs and improving the quantity and quality of apprenticeship program applicants. Mr. Veal extolled the "earn while you learn" aspect of apprenticeship programs, in which students not only avoid incurring student debt but make a good living wage while learning a trade. He observed that apprenticeship program opportunities are not generally well-known. Mr. Wilcher described joint labor-management apprenticeship programs, which are funded by dues paid by members and are overseen by DOL. He also described how the program benefits contractors, individual students, and the government. He recommended that the Committee consider implementing legislation which would require anyone awarded a contract for a publicly financed project to have an apprenticeship program, increase funding for high school industrial arts or industrial technology programs, and increase grant and scholarship funding for apprenticeship training programs.

Mature Worker Opportunities and Barriers. Mr. Anthony Carroll, Associate State Director for Advocacy, AARP, and Ms. Phyllis Anderson, Mature Worker Coordinator, Department of Elder Affairs (DEA) described the advantages and barriers to employing workers over the age of 50.

Ms. Anderson also described the Senior Community Service Employment Program, which is administered by DOL and contracted through DEA and other sponsors such as AARP; provided an overview of DEA's activities and noted that DEA cannot meet current needs without more resources; and provided an overview of the work of the State of Iowa Taskforce, which includes raising awareness of opportunities for mature workers and their communities, identifying the barriers to labor market participation, and developing a plan for ongoing work to carry out goals established by the Governor.

Mr. Carroll familiarized members with the results of a study conducted by AARP, which resulted in a report titled, "The Business Case for Workers Age 50+." AARP Iowa and DEA collaborated to produce a similar report focused on Iowa's businesses and mature workers titled, "The Business Case for Iowa's 50+ Workers." The reports debunk myths regarding mature workers and identify strategies and best policies and practices for recruiting and attracting mature workers to the workplace. The Iowa report identifies leading Iowa companies recognized for mature worker-friendly practices and describes what employers can do to find and keep mature workers.

Business Recruitment and Retention Efforts. Rockwell-Collins representatives Mr. Thomas R. Hobson, Senior Manager, State Government & Public Affairs; Ms. Jenny Becker, Manager, K-12



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Education Partnership Program; and Ms. Valerie Akiens, Manager, University Relations, provided an overview of partnerships and activities Rockwell-Collins engages in to meet the needs of the company's diverse workforce and area schools.

Ms. Becker described efforts and activities employed to increase K-12 student interest in STEM careers; as well as other projects promoting mathematics and science skills, activities, and tutoring; reading, writing, mentoring, and communication skills; and real-world applications, such as job shadowing and high school internships. Ms. Akiens described the company's University Relations Model, which involves partnerships with key universities (including ISU and the University of Iowa) and select universities (including the University of Northern Iowa) and off-campus and diversity sourcing. Hundreds of students participate in Rockwell-Collins' student programs each year, resulting in a full-time hire rate of between 75 and 80 percent. Mr. Hobson stressed the importance of partnerships between business, education, government, and the local community.

Mr. Hobson recommended increasing partnerships with business and their local communities, community engagement in STEM projects, use of local regional intermediaries to act as a clearinghouse and liaison between business and other entities, and providing support for state cooperative initiatives in which students alternate between full-time college and full-time work assignments over a 12-month period.

IV. Recommendations

The Committee unanimously recommended the following:

Connecting Young People to the World of Work

- Encourage the appropriate legislative committees to review the state's "model" core curriculum in Iowa school districts and to include twenty-first-century skills, specifically employability skills.
- Encourage the appropriate legislative committees to develop any changes needed to align career and technical core areas for K-12 and postsecondary education institutions to specific industry skill priorities to enhance initiatives to address the science, technology, engineering, and math (STEM) pipeline.
- Increase graduation rates at all levels of education.
- Use teacher internships developed in collaboration and partnership with private industry and business to ensure that educators are up to speed on applied skills in the workplace.
- Increase the participation in AmeriCorps, Job Corps, Jobs for America's Graduates Program, intermediary networks, and civic involvement.
- Encourage partnerships with employers, school districts, and local governments and state agencies to prepare students for the workplace and create awareness of the types of rewarding careers available locally. These could include the following:
 - Implement a job shadowing and mentoring initiative with targeted industries with the opportunities for hands-on activities.
 - Encourage manufacturers to host field trips starting in middle school.



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- Develop an Iowa employer ambassador program that provides outreach services to parents and career counselors with information about future employment opportunities and the needed skills for those jobs.
- Develop programs which allow youth to acquire on-the-job experience and “soft skills” needed to keep future jobs.
- Connect career counselors with the employment opportunities of today’s workforce.
- Target populations with barriers to employment to enhance their skills.

Training and Retraining Workers in Iowa

- Encourage local governments and state agencies to better promote and market Iowa’s current programs aimed at developing working adults’ skills and financial incentives available to employers.
- Encourage the appropriate legislative committees to find ways to eliminate the gap between traditional education grants and loan programs for the unique financial needs of Iowa’s adult workers and Iowa’s dislocated workers.
- Enhance initiatives and education opportunities to ensure that Iowa has more diversity and diverse talents in the workforce.
- Increase the capacity of community colleges to train and retrain the existing workforce by phasing in increases in the Workforce Training and Economic Development Funds (Code section 260C.18A).
- Encourage community colleges to create and expand capacity for short-term articulated certificate programs for critical shortage areas, including using equipment and trainers provided through programs under the Workforce Training and Economic Development Funds.
- Encourage the appropriate legislative budget subcommittee to consider funding for future workforce needs assessment surveys (vacancy surveys).
- Expand the capacity for postsecondary educational institutions to respond to the critical skilled needs of Iowa’s workforce.
- Increase awareness of and involvement in Iowa’s apprenticeship programs.

Recruitment of Workers

- Market Iowa’s high-tech job opportunities to targeted audiences.
- Use Iowa’s postsecondary institutions, which include the community colleges, as a recruitment tool to bring in out-of-state students.
- Continue to enhance the capacity of Iowa communities to create a better quality of life for residents.
- Encourage veterans to stay in Iowa and recruit veterans to Iowa by marketing Iowa’s Military Service Homeownership Assistance Program and veterans’ job opportunities.
- Promote regional marketing using collaboration of state and local resources.



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- Encourage partnerships of loan forgiveness and grant programs to reduce the debt of Iowa's graduates who remain and work in Iowa.
- Increase and enhance Iowa's housing capacity to aid in the recruitment of workers.
- Raise visibility, awareness, appreciation of, and opportunities for mature workers in their communities. Review policies that create barriers for reemployment of mature workers.

Strategy Statement. These are important strategies for the General Assembly to review and prioritize in order to address Iowa's skilled worker shortage. These strategies need to be developed in collaboration with private business and industry. In addition, current workforce training and education programs should be reviewed for relevance and effectiveness to determine continuation, modification, or elimination.

V. 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 web page:

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

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1. PowerPoint submitted by Michael Tramontina, DED.
2. "PDI: Vision, Action, Growth," submitted by Jason White.
3. "Kossuth County Intern Program," submitted by Maureen Elbert.
4. "Laborshed Analysis: Carroll County, Iowa," submitted by Jim Gossett.
5. "Leveraging Registered Apprenticeship as a Workforce Development Strategy for the Workforce Investment System," submitted by Rick Moon.
6. "Quick Facts: Number of Registered Apprentices," submitted by Rick Moon.
7. "Office of Apprenticeship (DOL) List of Officially Recognized Apprenticeable Occupations," submitted by Rick Moon.
8. "Talking Paper on National Registered Apprenticeship," submitted by Rick Moon.
9. "Registered Apprenticeship: Building a Skilled Workforce in Iowa for the 21st Century," submitted by Rick Moon.
10. "Projected Demand for Craft Labor," submitted by Mike Wilcher.
11. "New Trends in Training and Education," submitted by Mike Wilcher.
12. "Training and Education Funds," submitted by Mike Wilcher.
13. "NASTAD: Economic Impact of Registered Apprenticeship Costs & Benefits," submitted by Mike Wilcher.
14. "Educating Tomorrow's Workforce," Benefits Compensation Digest, submitted by Mike Wilcher.



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15. "A Looming 'Tsunami' of Baby Boomer Retirements," submitted by Phyllis Anderson.
16. "Business Case for Iowa's 50+ Workers," submitted by Anthony Carroll.
17. "Planning for Tomorrow's Talent Needs in Today's Competitive Environment: Executive Summary," submitted by Anthony Carroll.
18. "Planning for Tomorrow's Talent Needs in Today's Competitive Environment: Full Report," submitted by Anthony Carroll.
19. "Engineering Experiences/K-12 Business Education Partnership/Student Programs," submitted by Jenny Becker and Valerie Akiens.
20. "CSI: Corridor STEM Initiative," submitted by Tom Hobson.
21. "Technology Track," IOWA TODAY, submitted by Tom Hobson.
22. "Grants to Provide After-School Programs in Math, Science," The Gazette, submitted by Tom Hobson.
23. "Engineering Experiences: To Engage and Motivate Students," submitted by Jenny Becker.
24. E-mail to Sue Monahan from Roger Stewart Forwarding E-mail and Recommendations from Gary M. Mohr, Eastern Iowa Community College.
25. Written Testimony Submitted to the Committee by the Iowa Commission on the Status of Women.
26. "Issue Brief: Workforce Issues in LTC," submitted by the Iowa Health Care Assn. and the Iowa Center for Assisted Living.
27. Labor Shortage Summary submitted by Kerry Koonce.
28. Letter Forwarded by Representative Tymeson from Judy Winkelpleck, Iowa Council for International Understanding.
29. Written Testimony Received from Kevin Holzhauser, South Central Iowa Building Trades Council.

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1. "Partnership for 21st Century Skills — Beyond the Three Rs — Preparing U.S. Students for a Global Workforce," Kevin Fangman, DE.
2. "21st Century Learning Skills Within the Core Curriculum Project," Rita Martens, DE.
3. "Mathematic and Science Education: Collaborative Initiative," Dr. Benjamin Allen, University of Northern Iowa.
4. "Meeting the Skilled Worker Shortage Through Dual Enrollment," Dr. Michael Morrison, North Iowa Area Community College.
5. "Dual Enrollment Recommendations."



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6. Iowa Legislative Services Agency — Fiscal Services handout, "Enrollment of High School Students at Community Colleges."
7. "Community College Presidents' Report on College Placement Educational Opportunities for High School Students," February 2006.
8. "Iowa Community College Transfer Students Perform Exceptionally Well at the Regents' Institutions," October 2007.
9. "Dual Enrollment — What Does the Research Say?"
10. "Progress Report: An Evolutionary Path Toward a More Seamless Delivery System/Making the Senior Year Count: A Focus of Outcomes."
11. "Progress Report: Longitudinal Studies of Tech Prep Classes of 1997, 1998, 1999, 2000, and 2001."
12. Greg Schmitz, Hawkeye Community College, Handout.
13. "Presentation to the Skilled Worker Shortage Study Committee," Assoc. of Iowa Workforce Partners, Jerry Smith and Cathy Wiebel.
14. Robin Shaffer Lilienthal and Mark Harding, Liaison Advisory Committee on Transfer Students, The Public Connection — Fall 2004 and Fall 2006.
15. "A Message Regarding the 2006 Iowa College and University Enrollment Report," Diane Gonzalez.
16. E-mail from Jeff Berger with attachment, "K-12 and Community College Math and Science Initiatives 2007."
17. Testimony submitted by Tom Fulcher, Education Director, Associated Builders and Contractors of Iowa.

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1. "Skilled Worker Shortage," Rod Dooley, Rockwell-Collins.
2. "Deere & Company: Future Skills Needed," Don Dedobbelaere, Deere & Company.
3. "Building a Quality Workforce: Targeted Industries HF 829 — FY 2008," Information Sheet, Iowa Department of Economic Development (DED).
4. "Building a Quality Workforce: Targeted Industries HF 829 — FY 2008," Graph, DED.
5. "Accelerated Career Education Program," Information Sheet, DED.
6. "Employee Training Programs," Information Sheet, DED.



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7. "100-Day Plan — Stakeholder Focus Groups," Information Sheet, Iowa Department of Workforce Development (IWD).
8. "Meeting the Workforce Needs of Today and Tomorrow," Powerpoint by Paula Nissen, Mary Lynn ReVoir, Todd McGee, and Elisabeth Buck, IWD.
9. "Iowa Jobs," Information Sheet, IWD.
10. "Iowa Workforce Development Provides Essential Services Affecting Nearly Every Business and Iowan," Information Sheet, IWD.
11. "Job Seeker Services," Brochure, IWD.
12. "Business Services," Pamphlet, IWD.
13. "Quad Cities Laborshed Area — Workforce Characteristics: Advanced Manufacturing," Information Sheets, IWD.
14. "Quad City Region — Laborshed Analysis," Brochure, IWD.
15. "Quad City Region — Workforce Vacancy Assessment," Brochure, IWD.
16. "Executive Summary of Heartland Talent Pipeline Proposal," Handout, IWD.
17. "Skills Advantage Certificate Summary Report: Jan 1, 2006 — Aug 31, 2007," Graphs, IWD.
18. "Disability Program Navigator Initiative," Brochure — Mary Lynn ReVoir, IWD.
19. "The Iowa Navigator Program," Concept Paper — Mary Lynn ReVoir, IWD.
20. "2005 Disability Status Reports: Summary," Cornell University, IWD.
21. "Disability Program Navigator Grantees: Format for Quarterly Narrative Reporting," Handout — Mary Lynn ReVoir, IWD.
22. "Take a Look... Making a Difference: Iowa Disability Program Navigator Success Stories — 9th Quarter," Handout — Mary Lynn ReVoir, IWD.
23. "Meeting Iowa's Workforce Challenge," Comments, Judy Jeffrey, DE.
24. "A Great Place to Reach Your Potential," Foldout, DE.
25. "Project Lead the Way PLTW," Handout, DE.
26. "Project Lead the Way Implementation by Course," Chart, DE.
27. "Verbal Comments Presented by Dr. Janice Nahra Friedel," DE.



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28. "Legislative Skilled Worker Shortage Study Committee," Comments, Rob Denson, Des Moines Area Community College.
29. "Central Iowa Comprehensive Workforce System," Rob Denson, Des Moines Area Community College.
30. "Community Colleges of Iowa, Workforce Training and Economic Development Fund, Handout," Steve Ovel, Kirkwood Community College (KCC).
31. "Community Colleges of Iowa, Workforce Training and Economic Development Fund: FY 2007 Estimated Expenditures," Handout, Steve Ovel, KCC.
32. "Community Colleges of Iowa, Workforce Training and Economic Development Fund: FY 2008 Estimated Expenditures," Handout, Steve Ovel, KCC.
33. "Manufacturing a Winning Partnership," Prospective Article, Fabricators & Manufacturers Assoc, Int'l, Steve Ovel, KCC.
34. "Hawkeye Community College: Cedar Falls Center for Business and Industry," Handout, Al Clausen.
35. "Tough Choices or Tough Times" publication, National Center for Education and the Economy, 2007.
36. "Workforce Development and the States" by Michelle Larson-Krieg.
37. 2007 Workforce Development Bills, National Conference of State Legislatures (NCSL), July 2007.
38. Table of State Workforce Development Initiatives, NCSL, Updated July 2007.

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