

Skilled Workage Shortage Legislative Interim Study Committee Meeting:
Monday, Sept 24, 2007

Verbal comments presented by Dr. Janice Nahra Friedel, Administrator,
Division of Community Colleges and Workforce Preparation, Iowa
Department of Education (DE)

Judy Jeffrey is unable to attend this meeting. The theme of this committee's study is consistent with the comments Director Jeffrey delivered to a joint meeting of the Iowa Workforce Development (IWD) and Iowa Department of Economic Development (IDED) boards and the Iowa Association of Business and Industry (ABI) on June 13, 2007. I am distributing copies of her comments. Kevin Fangman's and my comments will highlight and complement Director Jeffrey's paper; Kevin and I will speak specifically to some of the initiatives of the DE to support the state's need for a high skilled workforce.

My comments will center on a few of the Department's initiatives to support efforts to instill in the new workforce entrants of Iowa and the incumbent workforce those knowledge and skills necessary for the high skilled, global economy of today and tomorrow. These include:

- The development of our state plan for Perkins
- Project Lead the Way (PLTW)
- Math-in-CTE
- The National Career Clusters project
- The connections between high school and community college career and technical education (CTE) programs.

I will close with some general conclusions drawn from our recent survey of community college program capacity.

Kevin will speak specifically about what the DE is doing to support career information and planning in our schools and the core curriculum.

Dr. Jeffrey's statements emphasized the PreK-14 state governance and coordination structure already in place, and Iowa's system of 15 comprehensive community colleges. In 2006, 121,753 students were enrolled in community college credit courses and programs and 287,073

individuals were enrolled in non-credit courses. One of every 4 Iowans between the ages of 18-64 enroll in a community college annually.

About 41% of the community college credit enrollment is in the career and technical programs, with the largest number of these enrolled in the health occupations, followed by business and then industrial technology programs.

Community colleges utilize environmental scanning, and national state and regional labor market information to determine new program development and to direct curricular revision. 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 Iowa Community College (NWCC)
- Wind energy at Iowa Lakes Community College (ILCC)
- Sign language and interpreter at Iowa Western Community College (IWCC)
- Dairy production at Northeast Iowa Community College (NICC)
- Laser optics at Indian Hills Community College (IHCC)
- Industrial instrumentation at Northwest Iowa Community College (NWCC)
- Entrepreneurship at North Iowa Area Community College (NIACC)
- Transportation and logistics at Iowa Central Community College (ICCC)
- Integrated home electronics at Western Iowa Tech Community College (WITCC)

Community colleges have a long history of partnership and collaboration with industry and business partners. Community colleges also have a long history of partnership and collaboration with the high schools that dates back to their origins. These partnerships have been enhanced by various state legislative initiatives and mandates. These include:

- 1989, SF 449 which mandated that all vocational programs be competency-based, model state standards be developed, that each high school provide three sequential units in four of six vocational

service areas, and that the high school programs be articulated to post-secondary (community college) programs. These criteria became were integrated in the criteria of the State Board of Education's program approval and the state's criteria for tech prep program.

- Supplemental weighting for shared programs between high schools and community colleges.
- Later state legislation included career academies, with concurrent enrollment and college credit opportunities for high school students. The DE has provided consultant support and professional development to the field in tech prep and career academies.

A career academy is 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.

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 (UI) and Iowa State University (ISU) colleges of engineering became affiliate universities. Iowa's implementation includes an important role for community colleges. Community colleges may be the best option for the provision of the more specialized courses within the PLTW program, and for students completing this curriculum who may choose to pursue a technical program, not necessarily a four-year degree in engineering. The Kern Foundation (Wisconsin) has been of great financial assistance to our schools, enabling Iowa teachers to participate in the required and training and professional development; the Division and a university partner have held annual PLTW Counselors conferences. Today we have 61 sites that are providing PLTW courses. The Division views PLTW as one of the state's primary vehicles of meeting the Perkins IV requirements for model programs of study. The IDED, community colleges and the Kern Foundation are working to provide financial support for teacher training and for the implementation of PLTW in our middle and high schools. The Regents' colleges of engineering are partners as well; Regents' faculty have reviewed the curriculum; they score the student assessments, award credit and provide teacher training. They are seeking funds to cover the institutional costs of the summer institutes for teachers and on-going professional development.

In recognition of the need to have greater integration of academics in CTE, and in response to the accountability measure related to the math performance of CTE students in Perkins IV, the Division of Community Colleges and Workforce Preparation is working with its DE K-12 counterparts, the community colleges, AEAs, high schools, and other state-wide math and CTE professional development initiatives to implement the national Math-in-CTE project. This year will involve awareness building and initial training of teachers, with implementation beginning next year.

The DE has developed an inventory of community college biotechnology initiatives and is working with the colleges as they pursue a coordinated statewide response to this growing industry. We convened seven focus groups of high school, community college, and four-year college and university biology and biotechnology teachers along with business representatives to discuss employer needs and the linkage of the courses and programs across the various levels. The DE then awarded minigrants to community colleges to continue these discussions last year through a Perkins reserve fund established for this purpose.

Additionally, the Division of Community Colleges and Workforce Preparation staff is working with the K-12 sector and the Board of Regents in assembling an inventory of STEM initiatives occurring around the state.

This year, the DE is coordinating the development of the State Perkins IV Plan, which is due to the USDE Office of Vocational and Adult Education (OVAE) in April 2008. This new legislation recognizes the need for CTE programs in high skilled high demand fields and the need for strong linkage between the secondary and post-secondary sectors. The Perkins bill also encourages states to articulate CTE post-secondary programs to four-year degree programs. Again, Iowa has a head start on this through the Bachelor of Applied Studies (BAS) at the UI and the Bachelor of Applied Management Technology (BAMT) at several independent colleges. Perkins is trying to take the nation where Iowa has been, in terms of secondary to post-secondary program linkage and collaboration. This is to the credit and vision of the legislature and the public policy Iowa has that supports linked programs and their funding.

We have convened a state-wide stakeholders group representative of businesses and industries, labor, various state agencies, parents, schools, community colleges, regent universities, independent colleges and

universities, and the proprietary colleges, teacher prep programs, teachers, administrators, counselors, parents and students. We have five stakeholder subcommittees working on components of the plan. In many ways, Perkins IV strives to take the nation where Iowa has been. US Congressional members and staff, as well as staff from the USDE OVAE have visited Iowa to explore our secondary to community college connections: in 2006, 19.8% of Iowa 12th graders enrolled in a CTE course, were enrolled through a 28E Agreement with a community college.

In preparation for the development of our state Perkins IV plan, the DE contracted for a third-party review of CTE in Iowa, to indicate the state's preparedness for moving forward with meeting the requirements of the new federal Perkins legislation, and to recommend how we might re-engineer CTE in Iowa to more closely align with education reform, workforce development and economic development and to meet the needs for a highly skilled, globally competent workforce. The State Board at its November 13th meeting will review the consultant's report and its recommendations. Additionally, the DE Division of Community Colleges and Workforce Preparation has convened a state group of CTE constituents to examine the structure of CTE in relationship to the national career clusters, and their recommendations will be forthcoming to the DE shortly.

Let me provide some background information on the National Career Clusters Project. In the 1990's, the USDE, working together with the states developed the National Career Clusters Model; this 16-cluster framework provides a modern configuration in which to structure all current and future occupations. The community college programs are structured using this framework, and our federal CTE reporting/Perkins reporting utilizes this structure as well; we have been working to realign Iowa's CTE structure around the national clusters and this will take a code change.

In 2007, 109,923 high school students are enrolled in CTE programs; More than three quarters of all 12 graders will have taken a CTE course during their high school years. In 2006, 19% of all 12th graders were enrolled in a CTE program through a 28e agreement with a community college. The enrollment data supports the increasing role of community colleges in delivering CTE to both the high school and adult populations. Community colleges provide Iowans with life-long access to skills training and educational opportunities...through CTE, adult basic education (ABE),

general educational development (GED), basic skills certifications, short-term training, industry/customized training.

Community colleges understand the value of partnerships and have the ability to leverage public investments to prepare and build our workforce, as exemplified through the Accelerated Career Education (ACE) Program (260F), career academy programs with our high school partners, the New Jobs Training Program (260E), the Iowa Jobs Training Program (260F) and the Workforce Training and Economic Development Fund. This year the Workforce Training and Economic Development Fund will provide \$11 ½ mil from three revenue streams: \$7 mil from the Iowa Values Fund, \$2 ½ mil from the Iowa Power Fund, and \$2 mil from the Infrastructure Fund. These funds are distributed to community colleges according to the state general aid distribution formula and are focused on targeted industries programs or renewable fuels.

As you may know, many community college programs are at capacity. So, though we hear from many sources of the need for increased numbers of nurses, our programs are at capacity. The Division just concluded a program capacity survey of the community colleges, which revealed a number of programs that the community colleges have identified are needed in their area but are unable to develop and offer due to lack resources for facilities, equipment and technology, and lack of available faculty expertise. These include non-credit short-term vocational programs of rapid prototyping, laser technology, robotics/automation, public safety training and such credit programs as: environmental studies, radiology technician, optometric technician, certified occupational therapy assistant, physical therapy assistant, video production certificate, applied automotive technician.

All community colleges reported having more qualified applicants than capacity would permit for the health occupations programs. For instance, NICC reported having a program capacity of 96 students in its Associate Degree Nursing/Practical Nursing Program, 96 enrolled, and 69 additional students who met the admission requirements could not be enrolled due to enrollment limitations; NICC had 103 that could not get into their radiologic technology program.

Student demand exceeded program capacity in such program areas as Climate control, welding, all health occupations programs, 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, Veteranian assistant, diesel agricultural technology, graphic design, mortuary science, information technology network administration, computer-aided drafting and design.

Additionally, one community college noted lack of science laboratories, particularly chemistry and physics, prevented over 200 students from enrolling in science courses that are required for many programs or needed for AA or AS programs. Colleges have expanded their capacity by establishing additional tracks i.e. certificates, diplomas, and 2 year options to meet differing student and industry needs. They have increased capacity in the Health occupations by implementing evening, and weekend programs, and adding career academies at other sites.

In closing, it is important that the community colleges continue to have the flexibility to identify, develop and provide programs that meet their regional needs.