

**MINNESOTA STATE COLLEGES AND UNIVERSITIES
BOARD OF TRUSTEES**

Agenda Item Summary Sheet

Committee: Academic and Student Affairs

Date of Meeting: March 17, 2010

Agenda Item: Centers of Excellence Update

Proposed
Policy Change

Approvals
Required by
Policy

Other
Approvals

Monitoring

Information

Cite policy requirement, or explain with reference to the Board of Trustees C C C C C C C C C C

the Board of Trustees

in April. This presentation is to provide background information on the work of the four centers of excellence prior to the evaluation presentation.

Scheduled Presenter(s):

- Linda L. Baer, Senior Vice Chancellor for Academic and Student Affairs
- Dennis Siemer, V-Tek Incorporated
- Laura Beeth, Fairview Health Services
- Student representative
- Ronald Bennett, Minnesota Center for Engineering and Manufacturing Excellence

Background Information:

In 2005, Minnesota State Colleges and Universities established centers of excellence in health care, manufacturing and engineering, and information security at four state universities and 21 community and technical colleges. This presentation will provide an overview of the four during 2008 and 2009.

The four centers are:

1. HealthForce Minnesota, Winona State University,
2. Advance IT Minnesota, Metropolitan State University,
3. 360° Manufacturing and Applied Engineering Center of Excellence, Bemidji State University, and
4. Minnesota Center for Engineering and Manufacturing Excellence, Minnesota State University, Mankato.

**BOARD OF TRUSTEES
MINNESOTA STATE COLLEGES AND UNIVERSITIES
*INFORMATION ITEM***

CENTERS OF EXCELLENCE UPDATE

BACKGROUND

How do the centers of excellence make an impact?

The four centers of excellence established by the Minnesota State Colleges and Universities are making a broad impact on the educational programs and services needed to prepare today's incumbent workers and tomorrow's skilled workforce.

Over the past four years, the centers have operated as entrepreneurial start-ups by advancing the state's critical industries of health care, manufacturing and engineering, and information technology. The centers are providing resources, nurturing innovative solutions and establishing productive collaborations. The centers of excellence have and will continue to empower people to transform their lives through educational and career attainment.

Advancing the system's strategic goals, the centers have made investments to recruit and retain students, improve the skills of workers, upgrade equipment, support faculty development, link programs and develop new curriculum. They educate employers on emerging technology and foster applied research programs, while gaining regional and national recognition for their own expertise. Further, the centers promote distance learning and other new ways to deliver education, particularly to students and workers in underserved rural communities.

The centers have built connections among K-12 schools, community and technical colleges, state universities and leading employers, in some cases bringing together competing companies to work together to solve problems. Through camps and other outreach programs, the centers offer hands-on opportunities to prepare young students, our talent pipeline, for careers of the future. The c

significant impact is the collective tendency to lose sight of the longer-term threats to economic competitiveness and well being. Based on past experience with labor shortages and demographic changes, the increasingly global nature of economic competitiveness, and the rapid evolution toward more technical sophistication in key industry clusters, these challenges require the

state. Leveraged dollars for innovation in fiscal year 2009 totaled more than \$1.16 million.

- Invested in more than 73 curriculum development projects and other programs since fiscal year 2006 to help advance health care practice. Projects include development of a health curriculum in Winona Public Schools; a mentorship program for nursing assistants on the White Earth Indian Reservation and Somalis in the Rochester area; and delivery of a bilingual health care curriculum in Spanish.
- Convened health providers and agencies across the state for a two-day summit to create a vision and develop a seven-step action plan for a Minnesota health delivery system.

Advance IT Minnesota

- Worked with academic and industry partners to develop innovative curricula in emerging competencies like Internet Protocol (IP) telephony network security, open source software, enterprise risk management, computer forensics, and information technology leadership. More than 12 new courses and significant lab upgrades have been realized with center support.
-

70 engineers in the next few years.

- Supported South Central College's new mechatronics program to launch a distance learning component. Center funds of \$70,000 leveraged with industry funding supports instructional costs of the mechatronics program.
- Supported summer camps for engineering and manufacturing career awareness for middle and high school students from the Iron Range to southern Minnesota. More than 1,000 students have been served using \$250,000 in center funds as seed money. Early evidence indicates these programs are helping to improve college and university enrollments in engineering and manufacturing.
- Organized, trained and evaluated 198 schools in Project Lead the Way, a hands-on technical education program in middle and high school. Project Lead the Way enrollments have increased 10 percent over 2009. Organized and provided training for university faculty to teach in summer training institutes.
- Supported the development of a new distance-based automation training program at Alexandria Technical College that has served more than 60 industry technicians. The project created a new delivery model that provides 24/7 accessibility for complete manipulation of hardware located anywhere across the world via the Internet.

360° Manufacturing and Applied Engineering Center of Excellence

-

degree in applied engineering. Through this grant, Bemidji State University also will add a biomedical emphasis to the applied engineering program.

- Sponsored 40 technology-based events including career fairs, day camps, and weeklong summer camps for more than 3,000 middle school and high school students.
- Between 2006 and 2008, technical manufacturing-related programs promoted by the center have graduated 207 percent more associate degrees, 34 percent more certificates and 25 percent more diplomas for a total of 39 percent more awards. Source: Wilder Research evaluation, January 2009.

For more information on center activities, contact:

Jane Foote, Director
HealthForce Minnesota
Winona State University
Phone: 507.285.7339 electronic mail: jfoote@winona.edu

Bruce Lindberg, Executive Director