

Executive Summary

2010 Evaluation of the Centers of Excellence

Entities established within the Minnesota State Colleges and Universities system

In 2005 the Minnesota State Legislature passed legislation and appropriated funding to create Centers of Excellence as part of the Minnesota State Colleges and University System (MnSCU). The MnSCU Board of Trustees designated the following Centers:

- Minnesota Center for Engineering and Manufacturing Excellence (MNCEME)
- HealthForce Minnesota
- Advance IT Minnesota
- 360° Manufacturing and Applied Engineering Center of Excellence

Evaluation during the first three years indicated a strong start for the Centers. This evaluation focuses on their fourth year. In particular, it examines six objectives of the Centers that reflect their unique, innovative, and interrelated set of functions that advance the mission of the system and its institutions:

1. Create new pathways for communication among all partners including industry, education, and learners
2. Identify industry opportunities and the related workforce preparation these opportunities require
3. Help learners discover and prepare for careers in center-aligned fields
4. Encourage cross-campus activity to strengthen courses, programs, and learning opportunities
5. Champion changes in the content and delivery of educational services
6. Produce revenue and leverage additional resources

Summary and conclusions

The Centers are showing a level of impact consistent with the time they have had to develop

The Centers provide a unique capacity in the system for meeting an interrelated set of six important goals. They provide added value to support system innovation and responsiveness to flagship economic sectors in the state. In each of the six objectives, we find strong evidence that they are creating impact at a level that is consistent with their four-and-a-half year time frame of existence.

In meeting these six objectives, Centers are also advancing the priorities of the overall system's current strategic plan. Examples include **increasing access, opportunity, and success** for students through their help for diverse learners to discover and prepare for careers. By identifying industry workforce needs – and championing the courses and programs needed to meet them – they are **enhancing the state's economic competitiveness** while also **promoting high quality programs and services**. Through cross-campus coordination, leveraging system capacities, and championing new delivery options, they are spearheading **innovation to meet educational needs**.

Centers are adapting with different strengths to meet different situations and priorities

From the outset, the Centers were designed with differences that fit unique industry sector needs and institutional capacities. The same considerations continue to shape varying developmental paths. For example, we see more new program development in the two Centers (360° and HealthForce) that have more academic partners. MNCEME, whose four-year programs have national accreditation whose standards limit transferability of first- and second-year credits, has focused the most on strengthening pre-college STEM training that can articulate into the front end of either two-year or four-year programs.

Advance IT works in a sector that itself serves a wide range of industries as well as nonprofits and government agencies. This sector began with the least well-developed industry associations. This Center, fittingly, has put the most effort into developing and convening industry networks and developing supports for Center alumni.

We would not expect equal successes across the board. By its nature, innovation presumes a readiness to embrace some less successful efforts as the price of discovering better methods. Both kinds of results produce valuable learning.

The Centers' position within the overall system still needs fine-tuning

The Centers are currently held accountable to create innovation in the system, but lack authority to make the changes to implement that innovation. They have been tasked to encourage cooperation in a basically competitive environment, and to develop new rules of engagement while existing policies and incentives still stand. It will be important to consider options to better align institutional and Center incentives, and give Centers more tools for creating and measuring the changes they are expected to produce.

In the current configuration, Centers are promoting ways of doing business that do not necessarily fit with current institutional practices. This is one likely reason why administrators gave Centers lower ratings than did faculty (and sometimes industry partners) on performance of some objectives. For example, the work to better align curriculum and develop new programs is time-consuming, often requires significant added administrative effort, and may not – especially not yet – show a corresponding benefit for the institution. Faculty, however, have a more direct view of the gains in student access, learning, and career readiness, and industry stakeholders are in a position to reap the most significant benefits when additional and better-prepared students complete their programs.

The role of administrators, however, is vital to the success and growth of the Centers. The accomplishments we observe to date are evidence of considerable willingness to discern, and work for, the larger good. To help extend a similar level of collaboration beyond the initial circle of Center supporters, the overall system should provide structures and processes to support and sustain this kind of collaboration.

Future considerations

The level of impact observed to date leads to a conclusion that continued funding of the Centers is merited. The same amount of money spread among institutions would be unlikely to achieve the same goals. The Centers focus funds on common purposes and provide convening and facilitation to craft a shared work plan and help partners maintain accountability to each other for working together. Additional decision-making authority or system incentives to back up these purposes should be considered.

Given the current challenges inherent in Centers' structure, the system should not assume that the current configuration of the Centers is the best for the long term. Different options should be considered. Is it necessary to identify a single lead institution? If so, should there be limits on the kind of institution that is so designated? Could more than one university be included? Should the unit of affiliation continue to be entire institutions, or could individual programs be considered Center partners? The system will be best served if a wide variety of options are considered.

Evaluation methods and data sources

Data for this report come from three main sources. First, each Center provided reports on their industry involvement, outreach and marketing activities, and leveraged funding. Second, Wilder surveyed leaders of major statewide industry associations, agencies, and peer organizations to assess Center visibility and reputation. Third, Wilder surveyed 80 faculty and administrators in associated institutions, and industry and K-12 partners, who are most knowledgeable about the Centers' activities and the effects these have had to date on students, programs, institutions, and industry. The survey went beyond obtaining opinions and focused on concrete examples of the ways in which the Centers were meeting their objectives.

Data on programs and program graduates were also obtained from system administrative records. This information was not available for this report, but will be provided subsequently.

Findings: Outreach and engagement

Centers' work to engage partners and raise awareness and support for their work shows continuing growth in:

- The number of businesses and other organizations participating in and informing the work
- The number of K-12 students, schools, and dislocated workers and other adults who receive activities and support for career awareness and preparation
- The number and type of connections made through web pages and other social media to raise awareness of the Centers' fields and their career opportunities, and their associated academic programs that prepare students for those careers.

Findings: Visibility and recognition

The reputation survey found widespread awareness of the Centers' existence and one or more aspects of their activities. Responses suggest an encouraging view of the purposes and activities of the Centers, including their observations that the Centers help the system and its institutions respond more nimbly to industry needs, develop and align curriculum to support student transfer, offer new learning options, and meet industry needs for a highly skilled workforce.

Findings: Evidence of impact

Of the six objective areas, the first three are initial steps that help to lay the groundwork for the latter three. Not surprisingly, these earlier steps show the greatest evidence of impact by the Centers of Excellence. However, for the length of time they have been in existence, the Centers also show sound accomplishments on the remaining objectives.

1. Create new pathways for communication and collaboration among industry leaders, education and learners

Over 90 percent of stakeholders reported evidence that the Center had ***“helped to increase communication among colleagues in different programs or institutions,”*** including two-thirds of stakeholders who said it helped “a lot.” In follow-up questions, large majorities of respondents reported that Center involvement put them in touch with new colleagues; introduced new ideas or resources to industry firms or to the sector; introduced new ideas and resources to programs and institutions; and helped position institutions with key industry or related partners. Examples of impacts include:

Industry is so much more aware of what is being offered. And MnSCU is more aware of our needs. Before HealthForce, I had never been asked about our needs. *(Industry partner)*

There is a better understanding of how to align outcomes in courses with separate educational goals and a better understanding of the alignment of courses as related to articulation agreements. *(Advance IT administrator)*

2. Identify industry opportunities and innovations, and the workforce preparation they require

Over 90 percent of stakeholders reported that the Center helped ***“increase communication between educators and people in industry,”*** including 60 percent who reported it helped “a lot.” In follow-up questions, majorities reported that Center activities had caused educators to become more aware of current innovation or challenges in industry, and that students were being better prepared for careers as a result of Center activities. Examples of impacts they described include:

Educators are coming with more information now to industry functions and are much better equipped to ask appropriate questions to ascertain industry needs. *(360° industry partner)*

The regular interaction between college leadership and the industry advisory board have made it obvious that those interactions are needed regularly, and that education representatives need to listen more than they speak. *(MNCEME administrator)*

3. Help learners of all ages discover and prepare for careers within Center focused industries

Over 90 percent of stakeholders reported that the Center ***“helped learners become more aware of careers in the field,”*** including 65 percent who reported it helped “a lot.” In addition, 89 percent of stakeholders reported that the Center ***“helped learners become better prepared for careers in the field,”*** including 61 percent who reported it helped “a lot.”

In follow-up questions, large majorities reported that the Centers' work had led to more student interest in the field, and more realistic ideas about careers in the field. Examples of impact include:

Internships and job opportunities are posted [on the web site]; students can go there any time. Also, there are opportunities for students to go to conferences where they can make connections and learn about job opportunities. *(Advance IT administrator)*

MNCEME institutions are validating it [Project Lead the Way] with articulation agreements and put their money where their mouth is. Opportunity for admission is tangible from you to us. *(MNCEME K-12 Project Lead the Way partner)*

In a survey of Project Lead the Way (PLTW) contacts across the state, 88 percent of respondents (mainly K-12 teachers and administrators) rated the support they received from MNCEME's PLTW coordinator as "extremely effective" (50%) or "very effective" (38%). Over half (53%) report their programs would suffer major changes if this support were no longer available, and 11 percent more report that their programs would cease to exist without the support.

4. Encourage cross-campus activity that strengthens learner opportunities and creates premiere course offerings

Three-quarters (75%) of respondents reported that the Center "**helped to increase cross-campus cooperation to strengthen learning opportunities,**" including 39 percent who reported that it helped "a lot." Over half of faculty and administrators reported at least one example of cross-campus activity that was not in place prior to the Centers, including shared positions and courses, articulation agreements, and other intercampus agreements. Respondents offer the following examples of advantages of the activity:

Individuals can pick the correct courses for their goals, rather than only the ones offered locally, with no need to repeat courses. There is more cooperation between colleges. (360° industry partner)

[The advantage is a] lack of redundancy, and very few gaps in the curriculum, because we talk a lot. (HealthForce faculty)

5. Champion changes in content and delivery to meet the workforce needs of tomorrow

Three-quarters (75%) of respondents reported that the Center "**contributed to changes in content or delivery of educational services,**" including 36 percent who said it contributed "a lot." High proportions of all respondents were able to "**name a process or product developed with the help of the Center that addresses an industry or workplace need better than before.**" In addition, the great majority of faculty and administrators were able

to "**name a process or product developed with the help of the Center that addresses an educational need better than before.**" These innovations include articulation agreements and educational pathways, novel course delivery mechanisms, new and strengthened curricula, internships, activities for engaging students and enhancing their learning, and many others.

6. Produce revenue and leverage resources to power these objectives

Two-thirds (67%) of respondents reported that the Center "**helped departments or programs acquire other funding or resources,**" including 34 percent who said it helped "a lot." Two-thirds also reported the Centers had helped departments or programs partner with or leverage capacities elsewhere in the system to strengthen their work (or, in the case of industry respondents, serve industry better). Examples include:

Regional conversations allow for leveraging and cooperation among individual campuses that we would otherwise not have access to. (HealthForce faculty)

Just being part of MNCEME and its name recognition helps to open doors with business, and when looking at grant monies. (MNCEME administrator)

The Center helped us provide a third-party service/entity to bring resources together - we couldn't do it by ourselves. (Advance IT administrator)

Faculty and administrators believe their association with the Centers, and their partnership with others through the Centers, are factors that strengthen the grant proposals they submit for outside funding. During 2009, they documented a total of just over \$9.7 million in such funding leveraged by the Centers, an increase over prior years. This includes approximately \$5.7 million from public sources and just over \$4 million from private sources. Most of these funds support the work of associated departments and programs, while 6 percent was available directly to the Centers to support their own operations.

For more information

This summary presents highlights of the full report of the same title. For more information about this report, contact Ellen Shelton at Wilder Research, 651-280-2700 or Todd Harmening at the Office of the Chancellor, Minnesota State Colleges and Universities, 651-201-1856. Authors: Ellen Shelton, Greg Owen, and Brian Pittman. April 2010

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