

DRAFT

# Charting the Future

Minnesota State

Colleges and Universities

---

**Draft Report of the Strategic Workgroups**

Education of the Future

Workforce of the Future

System of the Future



**“The best way to predict the future is to invent it.”**

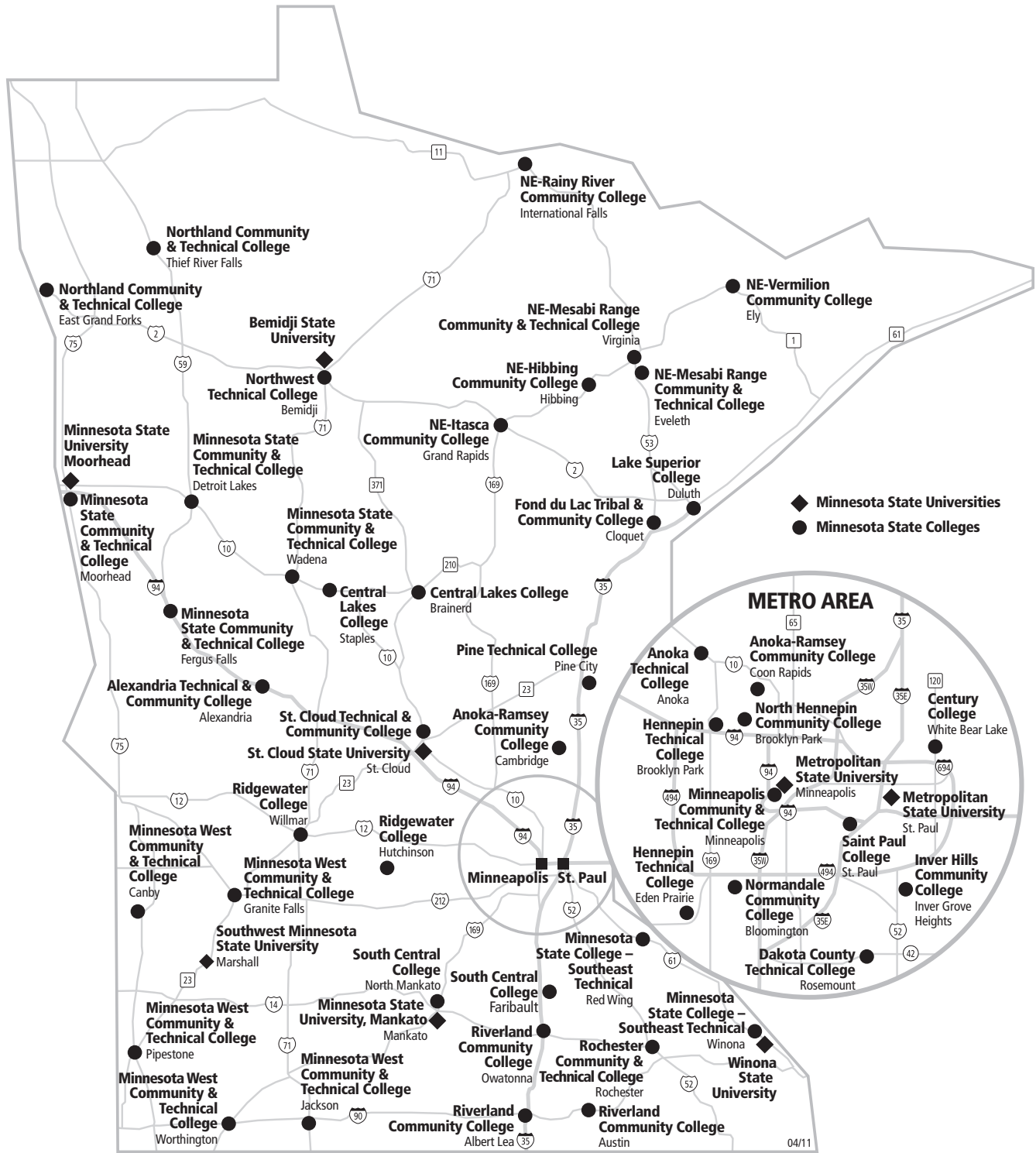
**— Alan Kay**

---

June 19, 2013

DRAFT

# Minnesota State Colleges and Universities



# Table of Contents

---

Transmittal Letter .....	i
Executive Summary .....	1
Serving Minnesota.....	5
Draft Recommended Strategic Priorities .....	10
Next Steps .....	25
Appendix 1: Chancellor’s Charge to the Workgroups.....	26
Appendix 2: Questions Posed to the Workgroups by the Chancellor.....	27
Appendix 3: Membership of the Workgroups .....	30
References.....	33



**Minnesota**  
STATE COLLEGES  
& UNIVERSITIES

30 7<sup>TH</sup> ST. E., SUITE 350  
ST. PAUL, MN 55101-7804

ph 651.201.1800  
www.mnscu.edu

June 19, 2013

Dear Chancellor Rosenstone,

We are pleased to share with you the draft report, *Charting the Future of Minnesota State Colleges and Universities*.

On November 19, 2012, you asked students, faculty, staff, presidents and trustees to participate in three workgroups to advise Minnesota State Colleges and Universities on the long-term strategic directions needed to ensure access to an extraordinary education for all Minnesotans; to meet Minnesota's workforce and community needs; and to deliver the most cost-effective, highest value education.

Higher education is undergoing dramatic changes in our students, in technology, in finances, and in the competition it is facing. These are exhilarating, yet challenging times at our colleges and universities as we strive to serve our students, our partners and our communities across the state.

Over the course of the last seven months, each workgroup met almost every three weeks to assess the questions you posed. You asked every workgroup member to serve as a steward of our colleges and universities, not as a representative of a particular constituency. Collectively, we brought an array of perspectives to our discussions and a willingness to think boldly and innovatively about our future. We actively discussed our options, debated the pros and cons of alternate pathways and deliberated on what strategic priorities to bring forth that have the most potential to move our system forward in light of the challenges we face.

The cumulative guidance from the three workgroups led to a decision to frame our joint response to the questions posed around six broad strategic priorities with supporting actionable strategic directions. The recommended strategic priorities and strategic directions outlined in this draft report reflect the feedback garnered from our three workgroups, emphasized strategies where there was strong agreement among workgroup members, and organized on thoughts around common themes identified across the workgroups.

Throughout our discussions, the workgroups broadly endorsed the perspective that we must strive to function less like autonomous institutions and more like a coordinated system of colleges and universities to ensure our competitiveness, effectiveness and relevancy in the years ahead. This bold shift from business as usual to a new way in which we work together towards these common objectives will require an intentional focus on: transformational change management, new competencies and developing a greater understanding of advancing technologies for our students, faculty, staff and leadership. Culturally, it will require a

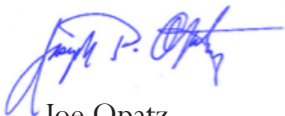
transformation of our colleges and universities and the system as a whole to become more intentional about leveraging our shared resources and human capacities in new ways to better meet the needs of students, employers and communities. Strong collaborative leadership at all levels will be needed to jointly move us towards improved student outcomes and to enable us to respond to our constituencies in this new age of higher education.

Recognizing the preliminary nature of this draft report, we are actively looking forward to broader consultation and dialogue that will occur among all constituencies. We hope the release of this draft report will mark the beginning of robust discussions among all stakeholders on the challenges we face and on the potential solutions we need to thrive and fulfill our shared mission. We look forward to seeking feedback and input from all stakeholders to ensure we have identified the right strategic priorities and the right actionable strategic directions to enable our colleges and universities to best serve our students and our community partners over the years ahead. Based on the input and guidance we receive in the coming months, our workgroups will reconvene, review the feedback provided and will make revisions to finalize our report to you by October 23, 2013.

Sincerely,



Scott Olson  
President, Winona State University  
Convener of the Education of the Future Workgroup



Joe Opatz  
President, Normandale Community College  
Convener of the System of the Future Workgroup



Ron Thomas  
President, Dakota County Technical College  
Convener of Workforce of the Future Workgroup

# Strategic Framework for Minnesota State Colleges and Universities

---

Minnesota State Colleges and Universities play an essential role in growing Minnesota's economy and opening the doors of educational opportunity to all Minnesotans. To that end, we will:

**1. Ensure access to an extraordinary education for all Minnesotans**

- Our faculty and staff will provide the best education available in Minnesota, preparing graduates to lead in every sector of Minnesota's economy.
- We will continue to be the place of opportunity, making education accessible to all Minnesotans who seek a college, technical or university education; those who want to update their skills; and those who need to prepare for new careers.

**2. Be the partner of choice to meet Minnesota's workforce and community needs**

- Our colleges and universities will be the partner of choice for businesses and communities across Minnesota to help them solve real-world problems and keep Minnesotans at the leading edge of their professions.
- Our faculty and staff will enable Minnesota to meet its need for a substantially better educated workforce by increasing the number of Minnesotans who complete certificates, diplomas and degrees.

**3. Deliver to students, employers, communities and taxpayers the highest value / most affordable option**

- Our colleges and universities will deliver the highest value to students, employers, communities and taxpayers.
- We will be the highest value / most affordable higher education option.

*Adopted by the Board of Trustees in January of 2012.*

# Executive Summary

---

## Charting the Future of Minnesota State Colleges and Universities Draft Report of the Strategic Workgroups

On November 19, 2012, Chancellor Rosenstone asked 46 students, faculty, staff, presidents and trustees to participate in three workgroups to advise Minnesota State Colleges and Universities on the long-term strategies needed to ensure access to an extraordinary education for all Minnesotans; to meet Minnesota's workforce and community needs; and to deliver the most cost-effective, highest value education. Each workgroup was asked to provide guidance on one of three broad topics: the education of the future, the workforce of the future and the system of the future, and was charged with recommending the broad strategic directions that we should take over the next five to ten years to best leverage the strengths of our colleges and universities to serve students and communities across Minnesota.

Every workgroup participant was urged to serve as a steward of our colleges and universities, not as a representative of a particular constituency. The workgroups took our charge seriously and actively discussed the options, debated the pros and cons of alternate pathways and deliberated on what strategic priorities to bring forth that

would have the most potential to move our colleges and universities and our system as a whole, forward into the future.

This preliminary draft report strives to chart a path that will initiate broader discussion across all stakeholders to assess whether we have identified the right strategic priorities and strategic directions to position our colleges and universities to thrive in the years ahead. Recognizing the preliminary nature of this draft report, our workgroups are looking forward to the next phase of our work-- the broad consultation that begins with the release of this draft report. Over the next four months, all stakeholders will have multiple opportunities to provide input and feedback, both formally and informally, on the recommended strategic priorities and strategic directions before the workgroups finalize the report in October of 2013.

Based on the pervasive theme throughout our discussions, the workgroups jointly developed the following recommended guiding principle to set the stage for our work together in the years to come.

### RECOMMENDED GUIDING PRINCIPLE

Transform Minnesota State Colleges and Universities to better meet the needs of our students, our community partners and our state by:

- Forging deeper collaborations among our colleges and universities and system office.
- Fully leveraging our collective strengths, resources and human capital.

## Recommended Strategic Priorities

---

### 1. Better align our program offerings and services to state, workforce and learner needs by developing and implementing a statewide academic plan and a statewide master facilities plan.

---

#### Actionable Strategic Directions

- Design and deliver a comprehensive, statewide academic planning and program review process. This approach should facilitate the:
  - Development of new programs;
  - Redesign of existing programs to align with industry needs;
  - Identification of programs to be replicated;
  - Identification of programs to be relocated;
  - Audit of existing programs to identify gaps in our offerings and services; and
  - Elimination of unnecessary duplication of offerings.
- Leverage faculty expertise by providing greater opportunities for faculty across our colleges and universities to collaboratively design and deliver courses and programs for use across our system.
- Explore the feasibility of delivering selected programs online or in a blended format through a consortium of faculty members from different colleges and universities across our system, optimizing the expertise of the faculty and adhering to all Higher Learning Commission guidelines, residency and accreditation requirements.
- Establish a statewide facilities master plan that responds to the statewide academic plan with a goal of improved space utilization and lower operating and capital costs. This plan should include the potential use of technology to provide access to academic programs and services where appropriate.

- Seek opportunities for new institutional arrangements through additional mergers, regionalized colleges/universities, co-location or other joint administrative or educational arrangements.

### 2. Certify the competencies our graduates have mastered.

---

#### Actionable Strategic Directions

- Create a statewide certification mechanism for competency-based award of credit and degrees, including credit for prior learning.
- Create a faculty-driven process to define shared standards of student competencies within disciplines and departments. Focus initially on developing standardized learner outcomes for developmental education and gateway courses.
- Convene a faculty-driven, statewide process to develop consistent methods of evaluation for credit for prior learning experiences for course and credit equivalences across our colleges and universities.
- Work with other colleges and universities, partners in business and industry, and K-12 institutions where appropriate to create statewide competency-based exams to demonstrate student mastery.
- Expand students' applied learning opportunities aligned with industry recognized competencies such as apprenticeships, work-related or on-the-job training, internships or dual training models.
- Invest in faculty experiences with industry to enhance faculty knowledge of current and emerging technical and foundational skills and competencies, technology and equipment.
- Expand our colleges' and universities' participation in quality assurance measures



that are benchmarked with similar institutions through partnerships with other colleges and universities or through third party evaluations.

---

### **3. Increase access to our colleges and universities and accelerate the educational success of diverse students.**

---

#### **Actionable Strategic Directions**

- Target outreach to and engagement with diverse communities to expand partnerships to increase access, increase student success, and reduce the achievement gap.
- Expand and deepen partnerships with K-12 and adult basic education (ABE) to increase college readiness and promote opportunities for students who are college-ready to access college level courses tuition-free while high school.
- Cultivate stronger campus climates through strengthening intercultural competencies and focusing on providing for diversity among our faculty, staff and leadership.
- Promote the expansion of flexible scheduling options to meet student needs including weekend cohorts, blended learning and chunked courses.

---

### **4. Create a comprehensive, statewide e-education strategy.**

---

#### **Actionable Strategic Directions**

- Create a web-based portal as a single point of entry for our students seeking online educational programming and services using our colleges and universities existing, accredited range of e-education program offerings and services.

- Deliver an array of student and academic affairs services through e-education including:
  - Orientation to online learning and assessments to help learners determine whether online learning meets their needs;
  - Placement and proctored testing including authentication of the learner;
  - Library services;
  - Online tutoring and advising;
  - Online personal counseling; and
  - Student life and career placement services.

- Certify the quality of all new online courses and programs through a statewide, faculty-developed, academically rigorous standard for all new online courses.

---

### **5. Deliver leading edge continuing education and customized training to students and employers through statewide collaboration.**

---

#### **Actionable Strategic Directions**

- Establish a shared portfolio of replicable training solutions that can be delivered statewide.
- Provide opportunities for faculty across our colleges and universities to provide instruction or share expertise in curriculum design and delivery through continuing education and customized training in order to deliver high-quality, innovative programs and services to individuals and employers across the state.
- Strengthen the connection between academic programs and continuing education and customized training to serve as a research arm to develop new programs and rapid response to market.
- Secure sustainable funding sources through private-public partnerships to meet local, state and regional economic and workforce development needs.

---

**6. Enable recommended strategic priorities to be realized by redesigning the system's financial and governance model.**

---

**Actionable Strategic Directions**

- Transform the financial model to provide a means to fund a statewide service model that incorporates system office, college services, and university services.
  - Accelerate the building of shared services through the Campus Service Cooperative and similar efforts. Common services should be expanded to include: predictive analytics, course and program development, student support, and coordinated academic planning.
  - Negotiate changes to modify existing bargaining agreements to promote expanded collaboration and cooperation across our colleges and universities. This effort may consider the renegotiation and merging of agreements based on type of work performed rather than institutional type and/or the modification of the definition of workload to include options beyond duty day/credit hour. Contract modifications could also enable shared staff, shared assignments, and cross-campus worksites.
  - Reward colleges and universities for efforts that promote system success. Provide stronger incentives within the design of our allocation formula for colleges and universities to collaborate.
-

# Serving Minnesota

---

Minnesota State Colleges and Universities is the largest provider of higher education in the state of Minnesota. Our 24 colleges and seven universities annually serve over 430,000 students. This includes service to more than half of all Minnesota students who pursue an undergraduate credential. Our colleges and universities serve a continuum of learners from high school students looking to jumpstart their college experience, to traditional twenty year-olds seeking bachelor's degrees, to returning adults in search of a career change, to working professionals looking to position themselves for career advancement through additional training and certifications. We are the place of hope and opportunity where students from all walks of life and from every community across our state come to educate themselves - be it for employment or enrichment - in search of a better life.

Our students mirror the breadth and diversity of Minnesota. Our colleges and universities educate more students of color, low income and first generation students than any other higher education provider in the state. We are dedicated to serving veterans and their families as they transition to civilian life. Many of our students are multi-lingual with over 90 languages represented throughout our system. Our colleges value open access and provide a venue for learners to start a degree pathway. We pride ourselves on the number of Minnesotans we serve, not the number of applicants we turn away. We measure ourselves by the quality of our graduates, not the ACT scores of our incoming students.

Our colleges and universities operate 54 campuses in 47 Minnesota communities. We educate roughly 277,000 students in credit-based courses and an additional 157,000 students in non-credit courses annually. We are the single largest provider of customized training and continuing education in the state,

servicing roughly 179,500 employees from 6,000 Minnesota businesses each year. Our colleges and universities generate more graduates than any other higher education provider in the state with roughly 41,000 graduates annually. The vast majority of our graduates stay in Minnesota to continue their education or to work. Our campuses are vital to the economic success of Minnesota's regional economies and are a tremendous state resource.

The law to create the system passed the Minnesota Legislature in 1991 and went into effect in 1995 merging the state community colleges, technical colleges and state universities into one system. Eighteen years later, the system has consolidated, merged and aligned 45 colleges and universities into 31. Our educational programming remains vibrant by teaching students foundational and technical skills to enable them to be strong contributors to society and to have the ability to adapt to changing workforce needs. Our colleges and universities continue to be critical to Minnesota's economic and workforce development and serve as cultural centers for the communities in which we are located.

Our colleges and universities provide over 2,800 academic programs tailored to meet Minnesota's workforce needs and designed to develop the skill sets needed to prepare our learners to contribute to communities throughout the course of their lifetime. Our colleges and universities educate:

- 83 percent of the state's new nursing graduates.
- 85 percent of the state's new law enforcement graduates.
- 84 percent of new graduates in the construction trades.

- 90 percent of new graduates in mechanic technician fields.
- 38 percent of the state’s new business graduates.

We provide the workforce that is the engine of Minnesota’s prosperity. For example, the college in the nation with the largest number of graduates employed by Mayo Clinic is Rochester Community and Technical College. Mayo patients interact with professionals trained by our colleges and universities including: surgical and primary care nurses, surgical technologists, clinical lab scientists, health unit coordinators, health information management specialists, nursing assistants, and medical transcriptionists.

Our colleges and universities focus on meeting the workforce needs of Minnesota and for good reason. A study by Andrew Carnevale projects that by 2018, 70 percent of jobs in Minnesota will require some form of a post-secondary education. One-half of those jobs are projected to require a bachelor’s degree and the other half are projected to require a certificate or associate’s degree (Carnevale, Smith & Strohl, 2010). As a result, our colleges and universities must stay focused on increasing the completion rates of post-secondary degrees among our population in order to provide the skilled workforce Minnesota needs to be prosperous. Yet, the painful reality is that there are still job openings, but many of the 165,000 Minnesotans who are unemployed do not have the education needed for the new economy.

Thus, our collective challenge and responsibility is to meet Minnesota’s need for an educated workforce and society. To meet this challenge, we must dramatically increase the number of people prepared for the jobs of the future. Our colleges and universities are well-positioned to play this pivotal role by providing Minnesotans and employers the range of educational and training programs and services needed for Minnesota to compete in an increasingly global economy.

## Challenges Facing Higher Education

We have made great progress in the last 18 years in realizing the advantages envisioned when the system was created. Students are more empowered. Students have more choices to utilize the partnerships between our colleges and universities through transfer agreements to complete their degree programs. There is much greater efficiency and effectiveness across our system operations.

However, changes have occurred since the creation of the Minnesota State Colleges and Universities system that are challenging our ability to ensure access to an extraordinary education for all Minnesotans, affecting our ability to be the partner of choice to meet our community and workforce needs, and impacting our ability to deliver the highest value, most affordable higher education option. These changes require us to rethink business as usual and find innovative and collaborative solutions to improve efficiency and effectiveness in meeting our collective mission of serving the students, communities and employers of Minnesota.

**Our students will grow significantly more diverse. More students will be from groups traditionally underrepresented in higher education, including students of color, low income students and first generation students.**

### Changing students

Population trends in Minnesota project a continued dramatic shift in student demographics over the next decade and beyond. Understanding these shifts in population and the impact they will have on our learner needs will enable the system to proactively chart our course and reform and redesign our educational models to better meet these emerging needs.

- The state’s population will continue to be increasingly concentrated in metropolitan areas, particularly in the Twin Cities metro area (see Figure 1).

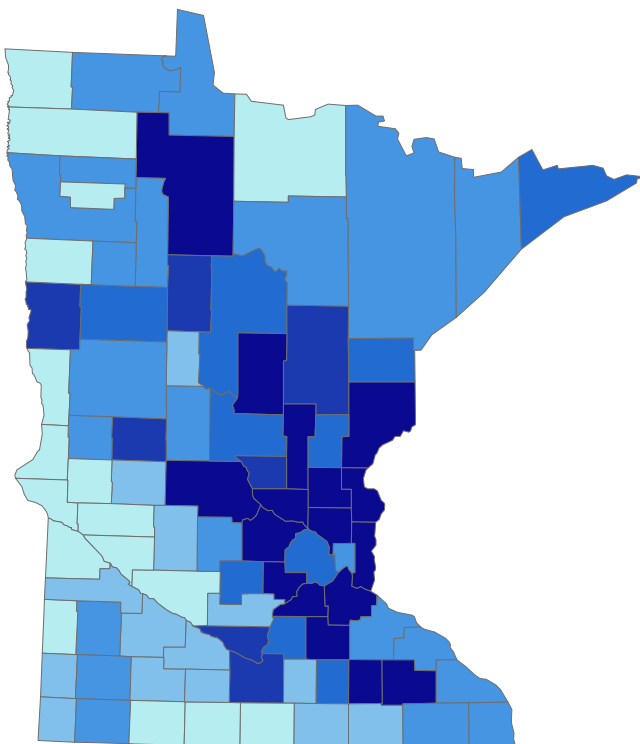
- Our students will grow significantly more diverse. More students will be from groups traditionally underrepresented in higher education, including students of color, low income students and first generation students. In fact, between the years of 2007 and 2011, all of the growth in full-time student headcount for both MnSCU colleges and universities was among students of color. One-half of the growth in part-time enrollments for our colleges and one-fourth of the growth in part-time enrollments for our universities were among students of color—underrepresented populations that have not historically been well-served in higher education.
- With the increasing need for post-secondary education, a growing segment of underprepared learners will seek an “on ramp” to a post-secondary degree. As

we intentionally blur the lines between secondary and post-secondary education to promote college readiness and post-secondary degree completion, the number of students served who are traditionally underrepresented is anticipated to grow.

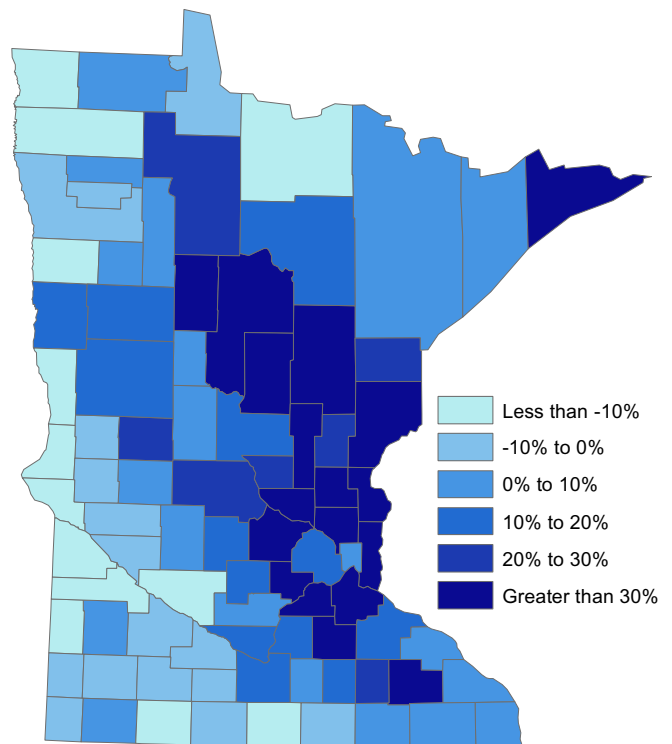
- Part-time enrollment is projected to grow across all segments of our student population. Part-time student headcount enrollment for the system grew by 22.2 percent between the fall of 2007 and fall of 2011, while full-time headcount increased by 2.4 percent.
- Students are increasingly enrolling in courses across multiple colleges and universities; in the last five years, our system has seen a 10 percent increase in this measure. Transfer students, including students with credit for prior learning experiences, comprise over 30 percent of our total systemwide

**Figure 1**  
**MINNESOTA POPULATION CHANGE**

1990 to 2010



Projected 2012 to 2040



Source: MN Department of Administration, Office of Geographic and Demographic Analysis

enrollment. These numbers are anticipated to continue to grow in the years to come.

- Learners are increasingly returning multiple times to our colleges and universities over the course of their lifetimes for enrichment, to update skills and to prepare for new careers.
- Students continue to need affordable higher education options. The number of students grappling with financial need is anticipated to continue to grow.
- Students are entering our colleges and universities with digital literacy and technological proficiency. They are seeking greater access to online and other technologically supported educational programming and services. Between 2007 and 2011, online enrollments have more than *doubled* and this trend is anticipated to continue.

### **The changing nature of work**

Jobs of the future will require some form of a post-secondary credential. Our graduates will need:

- Superior technical and communication skills, greater intellectual agility and capacity for independent, critical and imaginative thinking.
- Ability to apply knowledge resourcefully to new problems.
- Adeptness to embrace change and ambiguity with comfort.
- Experience working collaboratively.
- Preparation that is closer to the world of practice.
- Ability to think globally and work effectively across cultural and geographic boundaries, and have a deep appreciation for the diversity of others.
- The workplace of the future will change even more rapidly than it has over the past decade,

requiring quicker and more nimble responses from our colleges and universities to ensure our graduates are prepared for the changing nature of work and changes in the marketplace.

### **Focus on demonstrated competency of our graduates**

With its rising cost, higher education has been asked to demonstrate the capabilities of its graduates and the quality of their degrees. This focus will continue to be fueled by employers looking for employees prepared with both foundational and technical skill sets. Employers are beginning to value standards beyond degree completion including: learner outcomes, alternative credentials and competency-based credentials that are industry recognized (Workforce Assessments, 2012-2013). At the same time, new knowledge of learning and cognition is shaping the way we deliver education to maximize learning.

Students learn experientially and many come to our colleges and universities having mastered competency through prior learning. Thus, our system must continue to provide a rigorous standard to demonstrate credit for prior learning as course and credit equivalences. As our system looks to compete under this paradigm with a focused need for the certification of a learner's mastery of competencies, we have an opportunity to create mechanisms to certify outcomes for the learner, courses, programs and degrees which are widely accepted nationally. These standards must guide our colleges, universities and the system to continuously refine and improve our outcomes.

### **Resource shifts and pressures**

State funding of public higher education has been dramatically reduced over in the last decade. Ten years ago, state funding covered roughly two-thirds of a MnSCU student's education. Today, the state appropriation covers only roughly 40 percent of the cost of a MnSCU student's education with students and their families are covering the remaining 60 percent. These new economic realities have created a financial challenge for

many students and their families. In addition, it has highlighted the need for more affordable options for students seeking to participate in higher education. This is a more pressing issue than in the past as we expand our services to students and families of modest financial means. The rising costs of technology, security, utilities and health benefits also impact our available resources. Over the years ahead, our colleges will face even steeper competition for students, faculty and staff.

### **Technology shifts**

New technologies have changed the way students can learn from online platforms, to massively open online courses (MOOCs), to more individualized forms of instruction. The evolution of technology has enhanced communication, improved processes, increased access to information and knowledge, opened new mechanisms for assessment and provided new tools to facilitate learning through new delivery models. New technologies open the door to new ways of collaborating that did not exist 18 years ago when our system was formed. In the last decade alone, we have witnessed historic advancements in technology including: broadband internet, widespread wireless access in public spaces and dramatic growth in social media, video streaming, smart phones, tablets, and mobile applications. Advances in technology will continue to grow at a rapid pace. At the same time, new technologies have enabled others to enter the higher education market, creating additional competition for market share. Therefore, positioning our system to be responsive and proactive to these technological changes will require a change in culture, resources, and expertise.

### **The culture of institutional autonomy and decentralization**

Our system values institutional autonomy and decentralization. Under current conditions, colleges and universities control the development and delivery of academic programs, instruction, student services, customized training, and most business operations. This culture is out of sync in a

**At a time when more and more people need higher levels of education than ever before to be prepared for the jobs that will enable Minnesota to compete globally, we must shift to value collaboration among our colleges and universities and partnerships with others to optimize our advantage over our alternatives.**

world where collaboration and synergy are needed to achieve quality and efficacy, to create efficiency and cost effectiveness, to better serve students and communities, and to remain competitive and relevant. In recent years, greater collaboration and promising practices that promote efficiency and effectiveness have developed among colleges and universities, and in the system, through the Campus Service Cooperative in the areas of: finance, human resources, financial aid processing, strategic sourcing, and information technology. In light of the challenges facing higher education, building a culture that promotes deeper collaboration among our colleges and universities to leverage our combined capacity to meet our collective needs will require intentional transformational leadership, a change in culture and a strategic focus on the change process.

At a time when more and more people need higher levels of education than ever before to be prepared for the jobs that will enable Minnesota to compete globally, we must shift to value collaboration among our colleges and universities and partnerships with others to optimize our advantage over our alternatives. Our colleges and universities must work together in new ways to build capacity as a system, to ensure Minnesotan's access to an extraordinary education, to be the partner of choice, to deliver the most cost effective and highest value education in order to meet our state's workforce needs and to ensure a prosperous Minnesota well into the future.

# Draft Recommended Strategic Priorities

---

## 1 Better align our program offerings and services to state, workforce and learner needs by developing and implementing a statewide academic plan and a statewide master facilities plan.

---

### Context

Our colleges and universities collectively offer over 2,800 academic programs across 54 campuses culminating with a range of credentials from certificates to doctorate degrees. Providing the people of Minnesota with the most accessible, highest-value, quality education in the nation is our core mission. In order to fulfill our mission, we must assure that our array of academic programs are aligned to the skills and knowledge graduates need to lead a productive life, aligned to the needs of our learners and aligned to the state's current and future workforce needs.

**In the years ahead, we must create a system that ensures that the combination of academic offerings allows for access to programming across the state, varies in delivery modes and provides a venue for preparing students to have the skills to continuously adapt to workforce needs into the future.**

Our academic course and program offerings provide students with the ability to choose their learning modality from face-to-face traditional classrooms, to blended courses, to fully online courses. Students can choose a combination of options, customized to their individual needs. In the years ahead, we must create a system that ensures that the combination of academic offerings allows for access to programming across the state, varies in delivery modes and provides a venue for preparing students to have the skills to continuously adapt to workforce needs into the future.

Currently, our colleges and universities determine their individual portfolio of course and program offerings at the local level with limited regional or state oversight. As a result, there is little joint course or program development and delivery across our colleges and universities. Therefore, there is variance among like-titled courses and programs across our colleges and universities, in terms of credits and learner outcomes. Although significant progress has been made to improve the transfer of courses and programs among our colleges and universities through the development of the SMART Transfer Plan, a tremendous opportunity exists to improve transfer and articulation for our students. This opportunity focuses on the development of competencies and learner outcomes at both the course and program level for students to master. Recognizing more than a third of our students have transfer credits, the creation of such an initiative offers a significant chance to improve the transfer and articulation of courses among our colleges and universities to ultimately improve degree completion.

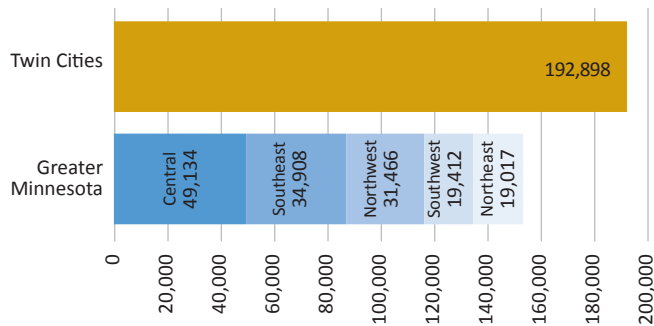
In recent years, through the good work of the partnering colleges and universities that comprise our Centers of Excellence, more regional programming has evolved to meet industry needs. Through the development of consortia arrangements among colleges and universities, faculty expertise is being used across our colleges and universities resulting in improved access and alignment of learner outcomes among courses and programs within a given industry sector, promoting more seamless transfer among our colleges and universities.

Although all technical programs have advisory boards, which provide input from business and



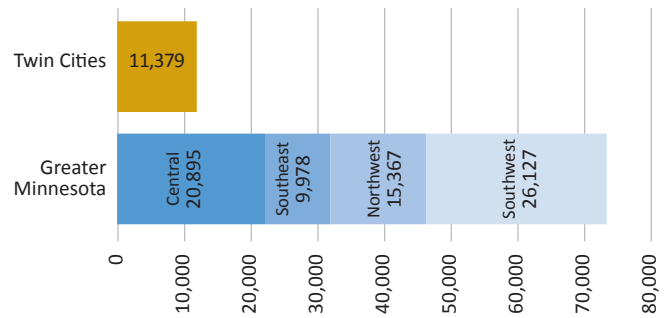
**Figure 2**  
**PROJECTED JOB GROWTH AND NET REPLACEMENT BY REGION**

Number of new and replacement jobs, 2010-2020



Source: MN Department of Employment and Economic Development

**Figure 3**  
**UNIVERSITY HEADCOUNT BY REGION, 2012**



Source: System Office Research, Planning and Policy

industry leaders in their design and identify discrete skills learners need in the field, this occurs primarily at the local level. Over the last year, however, deeper engagement with business and industry leaders has emerged at the regional and state level. Our colleges and universities actively partnered with Minnesota’s Department of Employment and Economic Development, the Minnesota Chamber of Commerce, and other partners to hold over 50 listening sessions across our state that engaged more than 1,450 people and 650 business leaders to help us understand the workforce needs of the future, with a focus on technical and foundational capacities. In addition, our colleges and universities have partnered with the Itasca Workforce Alignment Group to help engage business and industry and higher education to help collectively strategize on how to meet the state’s workforce needs. Based on the guidance provided to us by our business and industry leaders, in order for Minnesota to thrive, we will need our graduates to be better able to work in teams, have strong communication skills, demonstrate creativity and use analytical capacity.

Despite this progress, there is more for us to do to ensure that we are collectively turning out the right number of graduates, in the right places with the right skills. Our colleges and universities need up-to-date labor market projections at a state, regional and local level in order to justify

new program development or to validate the sunseting of a program when there are no longer viable employment opportunities. Our colleges and universities benefit by gathering business and industry leaders together statewide and regionally to help inform and advise our technical programs on specific areas that need to be redesigned or modified to meet industry standards. We benefit by having common data sources and metrics for analyzing the vitality of our programs. Our state benefits by our colleges and universities jointly deciding how to utilize our educational programming and services across our state to deliver access, how to scale capacity in our courses and program offerings and how to align to supply and demand to improve efficiency and effectiveness. Any newly developed academic planning process must be designed to provide a framework for evaluating and meeting state, regional and local needs.

Although our colleges and universities have made significant progress in improving the efficiencies of our facilities, there are still significant opportunities to maximize efficiencies in light of rising costs and response to changing population patterns across the state. Our educational delivery model is costly and does not respond quickly to population changes, resulting in a mismatch between our capacity and the demand for higher education. Minnesota’s population patterns have changed and will continue to shift in the years

**Figure 4**  
**CHARACTERISTICS OF ACADEMIC FACILITIES**

	INSTITUTION	CAMPUS	CENTER	SITE	CO-LOCATION
<b>ATTRIBUTES</b>	<ul style="list-style-type: none"> <li>Independent mission</li> <li>Accredited</li> <li>Local governance</li> <li>Brand/history</li> <li>Provides programs of study</li> </ul>	<ul style="list-style-type: none"> <li>Physical location</li> <li>Institutional property</li> <li>Delivers academic programs</li> </ul>	<ul style="list-style-type: none"> <li>“Condominium” space</li> <li>Generally leased</li> <li>Delivers academic programs based on local demand</li> <li>Flexible</li> </ul>	<ul style="list-style-type: none"> <li>Delivery of academic programs or individual courses</li> <li>“Hotel” space</li> <li>Very flexible</li> <li>Leverages partnerships</li> <li>Can be highly specialized</li> </ul>	<ul style="list-style-type: none"> <li>Delivers academic programs</li> <li>Takes advantage of available space</li> <li>Leverages local services</li> <li>Landlord/tenant</li> <li>Often facilitates shared programming</li> </ul>
<b>ACADEMIC</b>	<ul style="list-style-type: none"> <li>Accreditation</li> <li>Degree granting</li> <li>Direct instruction</li> <li>Online instruction</li> <li>Academic Support</li> <li>Customized training</li> </ul>	<ul style="list-style-type: none"> <li>Direct instruction</li> <li>Limited academic Support</li> </ul>	<ul style="list-style-type: none"> <li>Direct instruction</li> <li>Limited academic Support</li> </ul>	<ul style="list-style-type: none"> <li>Direct instruction</li> </ul>	<ul style="list-style-type: none"> <li>Direct instruction</li> <li>Shared academic support</li> </ul>
<b>INSTITUTIONAL SUPPORT</b>	<ul style="list-style-type: none"> <li>Executive</li> <li>Marketing</li> <li>Facilities</li> </ul>	<ul style="list-style-type: none"> <li>Limited</li> <li>Home institution</li> </ul>	<ul style="list-style-type: none"> <li>Limited</li> <li>Shared</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>Landlord institution</li> <li>Tenant - None</li> </ul>
<b>GOVERNANCE</b>	<ul style="list-style-type: none"> <li>Local shared governance</li> <li>Under Board of Trustees</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>Partner institutions share governance</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>Landlord institution</li> <li>Tenant - None</li> </ul>
<b>STUDENT SERVICES</b>	<ul style="list-style-type: none"> <li>Bursar</li> <li>Bookstore</li> <li>Advising/Counseling</li> <li>Student life</li> </ul>	<ul style="list-style-type: none"> <li>Limited</li> <li>Home institution</li> </ul>	<ul style="list-style-type: none"> <li>Limited</li> <li>Shared</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>	<ul style="list-style-type: none"> <li>Shared</li> <li>Limited for tenant</li> </ul>
<b>EXAMPLES</b>	<ul style="list-style-type: none"> <li>Winona State University</li> <li>M-State</li> <li>Pine Technical College</li> </ul>	<ul style="list-style-type: none"> <li>Central Lakes College, Staples</li> <li>M-State, Moorhead</li> </ul>	<ul style="list-style-type: none"> <li>University Center Rochester</li> </ul>	<ul style="list-style-type: none"> <li>7700 France</li> <li>North Branch High School</li> <li>MN West welding trailer</li> </ul>	<ul style="list-style-type: none"> <li>Minnesota State University, Mankato at Normandale Community College</li> </ul>

ahead. The majority of jobs and population will reside in the metro area, in particular in the Twin Cities, yet the majority of our university capacity exists in greater Minnesota (see Figure 2 and Figure 3).

In the years ahead, our colleges and universities will need to seek opportunities for new institutional arrangements through additional mergers, regionalized colleges/universities, co-location or other joint administrative and educational arrangements. They will need to consider the replacement of some full-service campuses with a suite of flexible delivery options

including centers or sites that deliver programs and services online and/or in partnership with other colleges and universities, school districts, and community-based organizations (see Figure 4).

## Recommended Strategic Directions

- Design and deliver a comprehensive, statewide academic planning and program review process. This approach should facilitate the:
  - Development of new programs;
  - Redesign of existing programs to align with industry needs;
  - Identification of programs to be replicated;
  - Identification of programs to be relocated;
  - Audit of existing programs to identify gaps in our offerings and services; and
  - Elimination of unnecessary duplication of offerings.
- Leverage faculty expertise by providing greater opportunities for faculty across our colleges and universities to collaboratively design and deliver courses and programs for use across our system.
- Explore the feasibility of delivering selected programs online or in a blended format through a consortium of faculty members from different colleges and universities across our system, optimizing the expertise of the faculty and adhering to all Higher Learning Commission guidelines, residency and accreditation requirements.
- Establish a statewide facilities master plan that responds to the statewide academic plan with a goal of improved space utilization and lower operating and capital costs. This plan should include the potential use of technology to provide access to academic programs and services where appropriate.
- Seek opportunities for new institutional arrangements through additional mergers, regionalized institutions, co-location or other joint administrative or educational arrangements.

# 2

## Certify the competencies our graduates have mastered.

### Context

The Higher Learning Commission, our accrediting body, mandates evidence-based assessments of what our students have learned tied to the specific competencies they have mastered through their participation in courses and programs. Rigorous evaluation measures of the quality of our courses, programs and colleges and universities for accountability and continuous improvement purposes are increasingly being demanded by our students, Minnesota taxpayers and the employers of our graduates. Over the last few years, our colleges and universities have made significant progress in identifying student learner outcomes for our programs and many of our colleges and universities are participating in a new multi-state assessment initiative. As we continue to delve deeper into demonstrating the competencies our learners have mastered, we must work together to further refine student learner outcomes and the mastery of competencies at the course level and, where appropriate, partner with other like colleges and universities to establish benchmarks for evaluation purposes.

**The development of a statewide system of credit for prior learning and for competency based assessments would allow students to have the option to accelerate their degree completion and provide a mechanism to assure they will not be required to duplicate learning they have already accomplished.**

In addition, students come to our colleges and universities with prior knowledge and relevant experience. Through statutory language, our colleges and universities are required to grant credit equivalences for competency-based national challenge exams, American Council on Education (ACE) recommendations, and military experience.

Many of our colleges and universities also offer students an opportunity to demonstrate their learning through a portfolio assessment or through a credit by exam process. A recent study by The Council for Adult and Experiential Learning, *Fueling the Race to Post-Secondary Success*, highlighted the benefits for students being awarded credit for prior learning as a means to validate prior learning, accelerate degree completion and reduce the cost of higher education. In fact, this multi-institutional study found that students with credit for prior learning credits were 2.5 times more likely to persist to graduation than students without credit for prior learning (Klein-Collins, 2010). Students of color who were granted credit for prior learning showed similar gains in degree completion (see Figure 5).

Currently, our approach to credit for prior learning has relied on implementation predominately by individual colleges and universities with limited statewide or regional coordination. As such, students are often unaware of the opportunities to demonstrate their competency in a subject through credit for prior learning. As a result, there is wide variation across our colleges and universities in course equivalencies for national exams and for the transferability of credit for prior learning.

The development of a statewide system of credit for prior learning and for competency based assessments would allow for students to have the option to accelerate their degree completion and provide a mechanism to assure they will not be required to duplicate learning they have already accomplished. In addition, students who are able to demonstrate their learning through the use of competency-based assessments or credit for prior learning options should be able to do so in a cost-effective manner.

Creating a statewide process for certifying credit for prior learning, maximizing our faculty expertise by discipline and through creating partnerships

Figure 5

### PRIOR LEARNING ASSESSMENT (PLA) IMPACT ON GRADUATION RATES BY RACE/ETHNICITY

	Associate's Degree	Bachelor's Degree	Other	No Degree
Hispanic, Non-PLA Students	6%	6%	1%	86%
Hispanic, PLA Students	17%	47%	0%	36%
Black non-Hispanic, Non-PLA Students	9%	17%	1%	74%
Black non-Hispanic, PLA Students	16%	40%	0%	45%
White non-Hispanic, Non-PLA Students	10%	19%	1%	70%
White non-Hispanic, PLA Students	14%	44%	0%	41%

Source: The Council for Adult & Experiential Learning, *Fueling the Race to Post-Secondary Success*

with third party nonprofits specializing in widely accepted challenge exams or in industry recognized credentials, provides a venue for our colleges and universities to jointly create a national model tied to learner outcomes. In addition, a statewide focus on credit for prior learning also allows an opportunity for exploring the feasibility of creating pathways for students to demonstrate their mastery of competencies attained in our non-credit offerings for possible credit equivalences at our colleges and universities.

With the onset of the national development of MOOCs, our new statewide mechanism for credit for prior learning will seek to enhance opportunities to certify learning and the mastery of competencies that might take place for students through this venue. The American Council on Education has already begun certifying MOOCs for course and credit equivalences. Our new process must involve, where appropriate, determining credit and/or course equivalencies for students who attend our campuses and either:

- arrive with learning demonstrated through this venue, or
- augment their learning through leveraging MOOCs in the future and want to demonstrate competencies for what they have learned.

### Recommended Strategic Directions

- Create a statewide certification mechanism for competency-based award of credit and degrees, including credit for prior learning.
- Create a faculty-driven process to define shared standards of student competencies within disciplines and departments. Focus initially on developing standardized learner outcomes for developmental education and gateway courses.
- Convene a faculty-driven, statewide process to develop consistent methods of evaluation for credit for prior learning experiences for course and credit equivalences across our colleges and universities.
- Work with other higher education institutions, partners in business and industry, and K-12 institutions where appropriate to create statewide competency-based exams to demonstrate student mastery.
- Expand students' applied learning opportunities aligned with industry recognized competencies such as apprenticeships, work-related or on-the-job training, internships or dual training models.
- Invest in faculty experiences with industry to enhance faculty knowledge of current and emerging technical and foundational skills and competencies, technology and equipment.
- Expand our colleges' and universities' participation in quality assurance measures that are benchmarked with similar institutions through partnerships with other higher education institutions or through third party evaluations.

# 3

## Increase access to our colleges and university and accelerate the educational success of diverse students.

### Context

The diversity of backgrounds and life experiences of our learners is a hallmark of a Minnesota State Colleges and Universities education. In the years ahead, the diversity of our students will soar. We will continuously need to adjust our academic offerings and student support services to better meet the needs of all of our learners.

Our colleges and universities currently serve:

- 60 percent of Pell grant recipients enrolled in higher education in Minnesota.
- 62 percent of students of color enrolled in higher education in Minnesota.

In the years to come, the traditional K-12 pipeline will shrink in the short term and the state’s population will grow significantly more diverse. According to our state demographer, by 2035, Minnesota’s population will be 25 percent non-

white. Latinos, black and Asian populations in Minnesota will more than double in the next 30 years (McMurry, 2009).

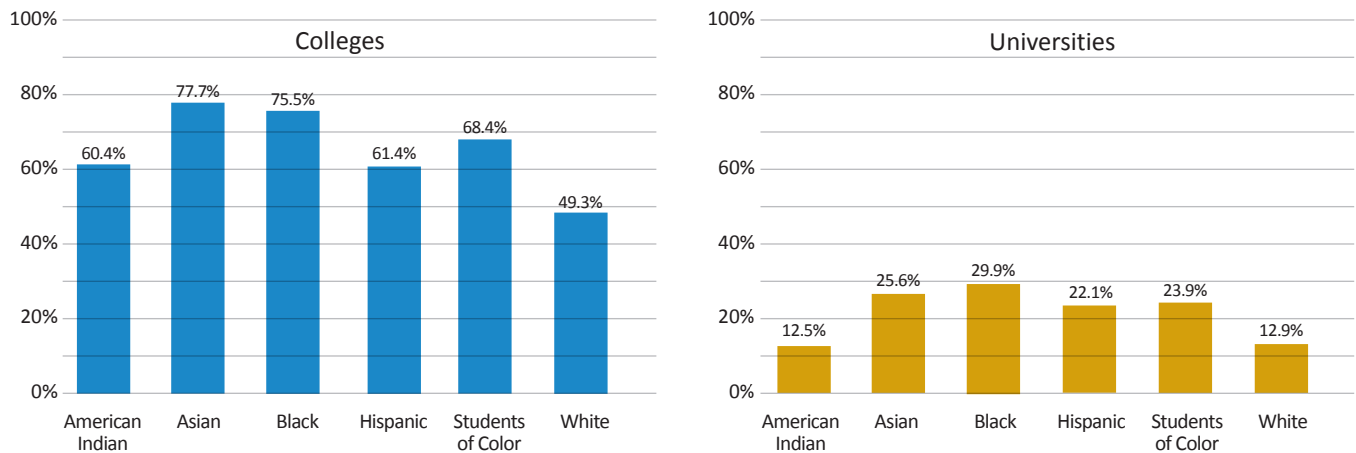
Our collective challenge is to ensure populations that historically have not yet been well-served by higher education have a different outcome: one of success and degree completion. Yet, our state currently has one of the largest achievement gaps in the country with 50 percent of students of color and American Indian students not graduating high school on time. In addition, too many of those who do graduate high school on time (regardless of color) are not ready for college-level learning at our colleges and universities. These achievement and aspiration gaps highlight the urgency for our colleges and universities to proactively work with our partners to collaboratively focus on finding and scaling effective solutions that promote equity and student success for all learners.

Our colleges and universities are making modest progress in closing our achievement gap, but there

**Figure 6**  
**GAPS IN COLLEGE READINESS**

MnSCU students of color are more likely to take developmental courses than white students

Percent of first-time entering students who take one or more developmental courses in their first two years.



Source: System Office Research and Planning analysis

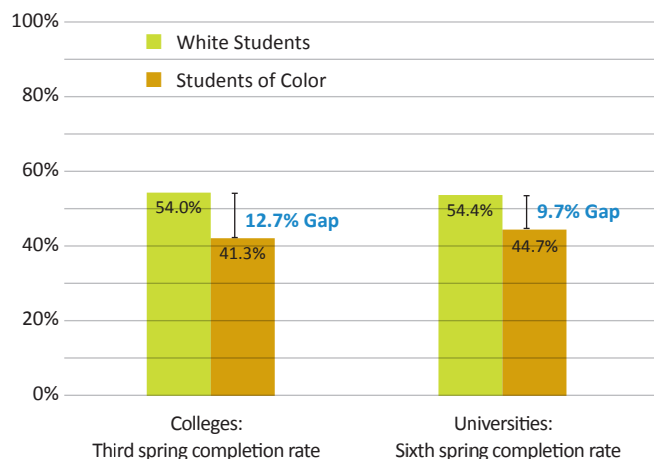
is more to do. Gaps in academic preparation and gaps in financial resources are the two largest factors impacting the achievement gap—accounting for about two-thirds of the gap (see Figure 6 and Figure 7). Therefore we must strengthen our partnerships with K-12 and adult basic education to promote college readiness and begin to leverage tuition-free opportunities to mitigate financial barriers faced by our students. Together we must also strengthen our development of intercultural competencies among our students, faculty and staff to promote dialogue that fosters greater understanding of the impact our cultural experiences have on learning and on preparing our students to thrive in a global economy. We must jointly reach out to diverse communities to seek their partnership and guidance on how to promote engagement and success in higher education among learners from these communities.

Our student demographic trends also highlight that our population will continue to be divided equally by age and by enrollment status, with growth projected in adult learners and those attending our colleges and universities on a part-time basis. Our population will continue to consist of a significant segment of students who enter our programming with transfer credits, enroll in multiple MnSCU colleges and universities over

**Figure 7**

**GAPS IN COMPLETION**

MnSCU students of color have lower completion rates than white students



Source: System Office Research and Planning analysis

the course of their lifetime, increasingly demand online and blended/hybrid course delivery modes based on emerging technological advances and seek flexible scheduling options.

**These achievement and aspiration gaps highlight the urgency for our colleges and universities to proactively work with our partners to collaboratively focus on finding and scaling effective solutions that promote equity and student success for all learners.**

The analysis of our overall student population trends must guide our joint response to envision the future of higher education and position the learners' needs at the center of what we do. Our challenge is to assure we deliver the educational programming and services all students need to succeed.

**Recommended Strategic Directions**

- Target outreach to and engagement with diverse communities to expand partnerships to increase access, increase student success, and reduce the achievement gap.
- Expand and deepen partnerships with K-12 and adult basic education (ABE) to increase college readiness and promote opportunities for students who are college-ready to access college level courses tuition-free while in high school.
- Cultivate strong campus climates through strengthening intercultural competencies and focusing on providing for diversity among our faculty, staff and leadership.
- Promote the expansion of flexible scheduling options to meet student needs including weekend cohorts, blended learning and chunked courses.

# 4

## Create a comprehensive, statewide e-education strategy.

### Context

Over the last decade, online education has emerged to be a significant segment of our course delivery strategy systemwide. Currently, 22 percent of our system’s student full year equivalences are fully online. Online course offerings are double that of blended course offerings. Together we offer 372 completely online programs and 10,662 online courses (see Figure 8 and Figure 9). The role of e-education

**As new technology solutions and professional development of faculty in e-education environments emerge, additional programs and courses will continue to build capacity in offering fully online pathways to degree completion.**

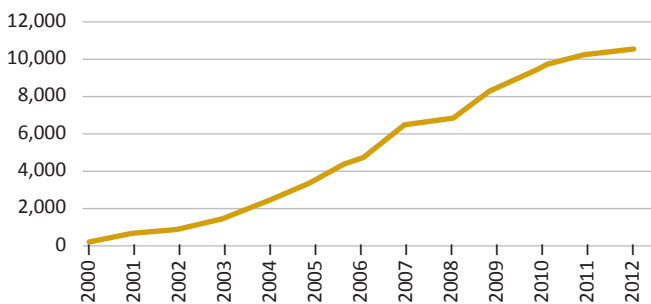
is anticipated to grow in the years ahead, as students seek more flexibility in the scheduling of course offerings, leverage available offerings across our colleges and universities to meet their program requirements and become more familiar with technological advances.

Our comparative advantage in e-education should include: the depth and breadth of our faculty expertise, the volume and variety of courses and programs, the quality of instruction in our online courses, the opportunities for faculty teams across our colleges and universities to collaboratively create high quality resource materials, our ability to produce greater efficiencies, and the level of quality student support services available through a new statewide collaborative.

In the years to come, fully online courses can and should be used in a variety of content disciplines as a course delivery strategy. The Minnesota Transfer Curriculum and other gateway courses should be available in a new statewide approach to meet the growing needs of our students across the system in a fully online venue. Specific programs such as computer science, information technology, business, health and education have been early adopters of online education. Yet, as new technology solutions and professional development of faculty in e-education environments emerge, additional programs and courses will continue to build capacity in offering fully online pathways to degree completion.

**Figure 8**  
**TRENDS IN MNSCU ONLINE COURSE OFFERINGS**

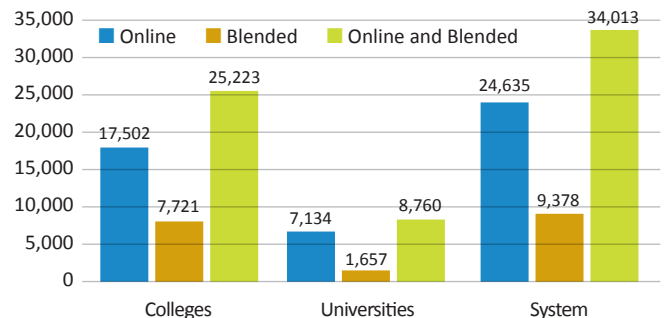
Online credit course sections



Source: System Office Research, Planning and Policy

**Figure 9**  
**2012 ONLINE AND BLENDED ENROLLMENT (FYE)**

Online enrollment is more than double that of blended learning



Source: System Office Research, Planning and Policy



Since their development, MOOCs have gained national attention as a possible game changer in higher education. Our response to the MOOCs movement should be multi-faceted, but should not at this time include investing in the development of MOOC course content at the tune of \$250,000 to \$500,000 a course. Instead, we should seize the opportunity to certify competencies attained through a MOOC and utilize open resource materials, as appropriate, for supplemental content resources. Recognizing there is current legislation on the American Council of Education recommendations for credit for prior learning, students coming to our colleges and universities having ACE certified MOOCs can and should be accommodated through our new statewide credit for prior learning system. The open resource nature of MOOCs also allows faculty and students to use their content as additional or supplemental resources. It can also potentially provide the resources to explore the feasibility to piloting expansion of flipped classroom methodology (lectures are available online for students to access anytime outside of class, instructional time devoted to clarify and expand students understanding of course materials).

A recent report from the Sloan Consortium, *Changing Course: Ten Years of Tracking Online Education in the United States*, shows older students, technologically-savvy students and students who have traditionally done well in higher education courses tend to perform as well in online venues as they do in traditional classroom settings. The study also cautioned, however, many students do not perform as well in an e-education environment (Allen & Seaman, 2013). There may be cases in which a fully online course delivery strategy may not be an appropriate venue, such as developmental course offerings for students who are significantly underprepared for college level learning or courses where the technology today cannot sufficiently replicate the lab experiences needed for technical skill development. However, as technology advances continue to emerge and as overall proficiencies in technology increase, this

delivery venue may grow as a viable option for a greater range of students.

In addition to offering courses and programs online, we must develop a suite of companion fully online student support services to meet the needs of our online learners and provide access to these services for students across our colleges and universities regardless of their home campus.

### Recommended Strategic Directions

- Create a web-based portal as a single point of entry for our students seeking online educational programming and services using our colleges' and universities' existing, accredited range of e-education program offerings and services.
- Deliver an array of student and academic affairs services through e-education, including:
  - Orientation to online learning and assessments to help learners determine whether online learning meets their needs;
  - Placement and proctored testing including authentication of the learner;
  - Library services;
  - Online tutoring and advising;
  - Online personal counseling; and
  - Student life and career placement services.
- Certify the quality of all new online courses and programs through a statewide, faculty-developed, academically rigorous standard for all new online courses.

---

# 5

## Deliver leading edge continuing education and customized training to students and employers through statewide collaboration.

---

### Context

Our graduates are regularly returning to our colleges and universities multiple times over the course of their lifetimes, be it to update their skills or to provide opportunities for enrichment. Continuing education and customized training have become essential services offered by our colleges and universities to help individuals update their skills and to improve business productivity, flexibility and agility. Workforce instruction and contract training are noted for their important role in meeting shifting workforce demands and for providing skills in a way that is flexible and responsive. Continuing education and customized training serves students at convenient times that do not match a traditional semester schedule, provides skills-based training, and develops customized solutions that quickly and flexibly meet the training needs of employers and employees.

**We must move towards a system that encourages sharing of unique or investment-intensive education offerings and services among our colleges and universities to enable replication as appropriate across our system.**

Strengthening and growing our colleges' and universities' continuing education and customized training services should promote rapid response to market, provide for agility in course development, encourage investment in research and development to support academic programs and provide the ability for employment-based certifications or evidence of experiential learning.

Our current model of continuing education and customized training departments is competitive and primarily driven by local colleges and universities – competitive *within* their institutions for resources and expectations to generate revenues and competitive *with* other MnSCU colleges and universities for market share and first-to-market offerings. In addition, this competition masks the growing pressures our colleges and universities face for market share from private training providers, for-profit higher education, corporate training departments and industry associations.

Despite the need for relevant and responsive workforce training across our state to meet the skill attainment goals of individuals throughout their careers and to improve employer productivity, our current model lacks the opportunity to maximize our system's comparative advantage. Today, colleges and universities independently develop continuing education and customized training solutions locally and have limited opportunities for jointly developed trainings or delivery across our colleges and universities. Instead, we must move towards a system that encourages sharing of unique or investment-intensive education offerings and services among our colleges and universities to enable replication as appropriate across our system. Working together, the customized training and continuing education divisions of our colleges and universities will be able to use their network of expertise and curriculum resources to strengthen the workforce in a manner that is financially sustainable and competitive in the marketplace of training solutions.

## Recommended Strategic Directions

- Establish a shared portfolio of replicable training solutions that can be delivered statewide.
- Provide opportunities for faculty across our colleges and universities to provide instruction or share expertise in curriculum design and delivery through continuing education and customized training in order to deliver high-quality, innovative programs and services to individuals and employers across the state.
- Strengthen the connection between academic programs and continuing education and customized training to serve as a research arm to develop new programs and rapid response to market.
- Secure sustainable funding sources through private-public partnerships to meet local, regional and state economic and workforce development needs.

# 6 Enable the recommended strategic priorities to be realized by redesigning the system's financial and governance model.

## Context

In the 18 years since our merger, our system of colleges and universities has made progress in improving efficiencies and streamlining processes. We have instituted common systems to deliver online courses and basic student services. We have cut administrative overhead by reducing the number of colleges and universities from 45 to 31 through mergers and alignments. We rank 40th out of 50 comparable state systems in the U.S. in overall administrative spending per student. The system office budget is 24 percent smaller than it was four years ago, with fewer administrators in the system office than a decade ago. We have begun to realize greater efficiency and effectiveness in system operations through the establishment of the Campus Service Cooperative and the implementation of the Information Technology

Service Delivery Strategy. These efforts have reduced the cost of educating a student by 12 percent in the last 10 years.

Despite our progress, significant opportunities remain for continued improvement in the efficiency and effectiveness of our business practices. Our current culture is built on competition, local autonomy, and decentralization rather than collaboration and cooperation as a system of interconnected colleges and universities. We can and must move our system forward by realizing the power of our colleges and universities working together to lead our system, through restructuring colleges and universities through mergers and new types of alignment, adopting common business practices and developing the governance model that provides system leadership across the entire enterprise.

**Figure 10**  
**SERVICE DELIVERY MODEL**

PERSON BASED (delivered by colleges and universities)	TECHNOLOGY BASED (shared, available anywhere)	
	<i>Administrative services</i>	<i>Student services</i>
Bursar	Enterprise Resource Planning system (ISRS)	Learning management system
Program marketing	Enterprise IT Systems	Online services (registration, bill pay, etc.)
General maintenance	Financial aid processing	Degree audit
Economic development	Payroll	Course/program inventory
Community interaction	Business services	Credit for prior learning
Human resources	Legal counsel	Online tutoring
Direct instruction	Collective bargaining	Online advising
Degree granting	Lobbying	IT helpdesk
Advising/counseling	Audit	Customized training
Academic programs	Institutional research	
Customized training delivery	System marketing	
Student life	Human resources	

Our colleges and universities have reduced administrative expenses through the merger of several individually accredited colleges into a single accredited institution and the alignment of colleges under a single administrative structure. However, the marginal reduction in administrative costs realized through aligning colleges and universities has declined as the use of shared services has increased across the system. To continue the trend of reducing administrative costs and improving services, we must not only continue to explore the option of merging institutions, but also develop a suite of flexible delivery options to expand access and enhance outreach to underserved communities while seeking opportunities to shrink our physical footprint to reduce operating costs and increase financial sustainability.

**We can and must move our system forward by realizing the power of our colleges and universities working together to lead our system, through restructuring colleges and universities through mergers and new types of alignment, adopting common business practices and developing the governance model that provides system leadership across the entire enterprise.**

The function of the system office and the roles of our colleges and universities are best determined by the services they provide and their expertise (see Figure 10). For example, the system office is the service provider for the distribution of our state allocation, our learning management system, legal services and internal auditing among other functions. However, all services to our colleges and universities are not provided exclusively from the system office. For instance, document management services for the system are provided by Minnesota State University Mankato. Winona State University provides support and guidance on our Microsoft SharePoint collaboration. Minnesota State Community and Technical College provides systemwide support for payroll and financial aid processing. In these examples, governance is

## Recommended Strategic Directions

- Transform the financial model to provide a means to fund a statewide service model that incorporates system office, college services, and university services.
- Accelerate the building of shared services through the Campus Service Cooperative and similar efforts. Common services should be expanded to include: predictive analytics, course and program development, student support, and coordinated academic planning.
- Negotiate changes to modify existing bargaining agreements to promote expanded collaboration and cooperation across our colleges and universities. This effort may consider the renegotiation and merging of agreements based on type of work performed rather than institutional type and/or the modification of the definition of workload to include options beyond duty day/credit hour. Contract modifications could also enable shared staff, shared assignments, and cross-campus worksites.
- Reward colleges and universities for efforts that promote system success. Provide stronger incentives within the design of our allocation formula for colleges and universities to collaborate.

built based on the services delivered rather than around the location where the service is being provided. Thus, shared services can be provided from anywhere within the system and should be located near the provider and expertise.

Minnesota State Colleges and Universities' total budget exceeds \$1.8 billion annually. Employee compensation makes up 66 percent of total expenditures, leaving \$613 million for purchased

services, supplies, facilities and other expenses. State appropriation, tuition, and financial aid provide 77 percent of total revenue. Tuition and fees are collected and retained by the colleges and universities. The system office distributes the state allocation to the colleges and universities through an algorithm known as “the allocation framework.”

The allocation framework distributes the majority of the funding based on student FYE and the inherent costs of programs. The framework funds operations and incents efficiencies, however, it is insensitive to different tuition rates or other alternative revenue streams, and agnostic to geographic location.

The allocation framework and overall financial model do not provide a clear method of funding

systemwide shared services. The focus on enrollment can be a barrier to cooperation and collaboration in the development, delivery and joint marketing of academic programs. Finally, the allocation of revenue lags expenses resulting in a lack of funding for investment in new program development and innovation.

We must develop a new approach to system financing that encourages cooperation and clearly enables shared services across our colleges and universities as well as those delivered by the system office or the Campus Service Cooperative. We must also develop a statewide approach to funding new and innovative academic programming and encouraging colleges and universities to collaborate to build capacity to meet our collective mission to serve Minnesota.

# Next Steps

---

The release of this draft report is intended to mark the beginning of an intensive four month period (June 19, 2013 to October 14, 2013) of broad consultation and discussion. During this time, there will be multiple opportunities for all stakeholders to provide input and feedback, both formally and informally, on the recommended strategic priorities and strategic directions.

We look forward to the chancellor engaging with members of the Board of Trustees, bargaining unit leaders, students, presidents, the cabinet, and college and university administrative leaders to formally seek feedback and input.

Broader consultation and feedback will be sought beginning on June 20, 2013, with the launch

of a website that will include the posting of an electronic link to the report and a bibliography of all of the reference articles and data reviewed by the workgroups. The website will also provide a mechanism for faculty, students, and staff to provide suggestions and offer feedback on the report. The website can be found at:

<http://www.mnscu.edu/strategicworkgroups/>

In October 2013, each of the workgroups will reconvene to review the feedback given and revise the draft report based on the collective input and consultation with the broader community. By October 23, 2013, we will forward the final report to Chancellor Rosenstone.

# Appendix 1

## Chancellor's Charge to the Workgroups

---

November 19, 2012

Despite this world of change around us, the basic architecture of the Minnesota State Colleges and Universities system – the relationship among our community and technical colleges, our universities and the system office – has been remarkably unchanged.

In light of the changes that have occurred and that will likely occur over the years ahead,

- What should be the MnSCU education of the future?
- How should MnSCU meet the future workforce needs of Minnesota?
- What should be the MnSCU system of the future?

Addressing these challenges is not only critical to the future of Minnesota State Colleges and Universities, it is critical to our students, critical to the communities we serve, and critical to the businesses, civic and cultural institutions across the state who count on us to help them solve real-world problems, prepare Minnesotans for work, and help Minnesotans at the leading edge of their professions. Addressing these challenges is critical to Minnesota's economic vitality. Minnesota State Colleges and Universities cannot continue to play their crucial role in growing Minnesota's economy and opening the doors of educational opportunity to all

Minnesotans unless we address the large, macro changes that have occurred and will continue to occur over the years ahead.

The challenges pose foundational questions – questions that go to the very heart of how we should carry out our mission. As challenging as the changes have been, and as challenging as they will be over the years ahead, we cannot shy away from our responsibility to think critically about these questions. We must create the bold and innovative models of the future – models that will enable our colleges and universities to better meet their responsibilities to the people of Minnesota.

To forge strategies for the future – for the education of the future; for meeting Minnesota's future workforce needs; and for working together as a system of colleges and universities – three workgroups are being formed and charged with recommending the broad strategic directions that MnSCU should take over the next five to ten years.

Each workgroup should develop a strategic vision and strategic direction and identify the collaborative strategies that will best leverage the strengths of our colleges and universities to serve students and communities across Minnesota.

Steven J. Rosenstone, Chancellor



# Appendix 2

## Questions Posed to the Workgroups by the Chancellor

---

### Education of the Future

As we think about the changes in our students, changes in technology, changes in the nature of work, changes in the world in which our graduates will work, and the multiple careers that our graduates will hold, how can we best prepare graduates for work, life, and citizenship? What should a MnSCU education of the future look like? What are the roles of undergraduate education, graduate and professional education, and life-long learning?

#### Questions to consider include:

- 1. What will the students of the future look like; what are their needs; and how should we meet them? How can learning be better driven by the needs of the learners?**
  - What strategies should we use to ensure access and success for technologically savvy students, students returning to college to prepare for new careers, as well as students who come from communities that traditionally have been underserved by higher education?
  - How do we prepare students for careers in a world that is increasingly diverse, increasingly global, and increasingly technological?
  - If people will return to our colleges and universities multiple times over the course of their careers, how might we think differently about the relationship learners should have with our colleges and universities?
- 2. How should new knowledge about learning and cognition shape how we teach and facilitate learning?**
- 3. How can we reimagine higher education in ways that will continue to improve the effectiveness of our academic programs and reduce costs to make them more financially accessible to students?**
- 4. What should be the role of e-education in MnSCU? What is our comparative advantage?**
  - What kinds of courses, academic programs, and students are best served by e-education? How should e-education increase access to our courses from afar, allow students to take courses at convenient times and places, and enable greater individualization of instruction?
  - What model should be used to develop and deliver high quality, cost-effective e-education?
  - How should teams of faculty work together to develop courses that can be shared system-wide and beyond? What partnerships should we forge with other educational institutions or entities to develop course materials, provide technological infrastructure, or academic support – partnerships that would advance access, quality and cost-effectiveness? How can we best leverage free instructional materials (e.g. “Massively Open Online Courses” – MOOCs)?
  - How should we define and measure quality?
  - In sum, how should we use technology to enhance effective education, reduce its costs, and increase access? For what kind of programs? For what kind of learners?
- 5. Higher education has traditionally awarded credit and degrees upon the completion of a number of courses and credits rather than on how well students demonstrate specific skills,**

no matter how, when, or where they learned these skills. How should we move from credit-based to proficiency-based degrees? How should we increase credit for prior learning?

6. **How should the role of the faculty and academic support staff change over the years ahead? What skills and capabilities will faculty and academic support staff need to enable them to effectively deliver the education of the future? What kind of support and infrastructure will they need to be successful?**

## Workforce of the Future

Meeting the workforce needs of Minnesota is a core responsibility of Minnesota State Colleges and Universities. Our graduates are key to the economic growth of communities throughout the state. We deliver on this responsibility in three ways: by producing graduates who have the foundational and technical skills needed for the work that needs to be done; through partnerships with business and industry; the Department of Employment and Economic Development and its Workforce Centers; and through our programs that deliver advanced customized training to over 120,000 employees each year.

Looking at the changes ahead in the nature of work and the skills graduates will need:

1. **How should we ensure that our academic programs are aligned with Minnesota's community, regional and statewide workforce needs so they deliver graduates with the foundational and technical skills needed for the jobs of today as well as tomorrow?**
2. **How should we increase the collaboration among our colleges and universities to ensure regional and statewide responses to Minnesota's workforce needs? How should we deepen our partnerships with business and industry? What should be the model for vocational training? Should business**

**and industry play a greater role, as it does, for example, in Germany's Dual Vocational Training System (TVET)?**

3. **How can we strengthen our partnerships with DEED and the state's Workforce Centers? What additional partnerships with government and community organizations should be forged?**
4. **How can our customized training, professional development, and continuing education programs better serve learners as well as business and industry?**

- How should we advance the quality of our customized training, professional development, and continuing education programs and expand the range of services that we provide?
- What should be the model, goals and outcomes going forward? How can we move beyond customized training to comprehensive workplace solutions for employers in Minnesota and beyond? How should we increase collaboration among our colleges and universities?
- How should we work collaboratively with business and industry to help shape, create, and model the innovative workplace of the future?
- What barriers need to be overcome to develop an effective workforce strategy for Minnesota? How should they be overcome?

## System of the Future

In light of all the changes that have occurred since the founding of the system and that will occur over the years ahead, and in light of the changes that will occur in MnSCU's education and workforce strategies, what should the MnSCU system of the future look like?

- 1. How should we serve communities across Minnesota in light of changing demographics, changing finances, changing educational needs, and changing technology? What is the role of the campus? What should the campus of the future look like? What academic services should be created on each campus and what services should be provided to all campuses in a collaborative fashion? What new, more agile, flexible arrangements, such as “academic centers” or “sites,” should be used to meet the location needs of students? Should some programs be offered by a consortium of institutions?**
    - graduates prepared for the jobs and professions needed to meet Minnesota’s workforce needs
    - service to communities across our state
    - cost-effectiveness
    - innovation and entrepreneurial activity
    - long-term financial sustainability
  - 2. What should be the system’s competitive advantage and how should it be achieved?**
  - 3. What strategies should be used to incent the outcomes we strive to achieve?**
    - academic quality and student success
    - access and affordability
  - 4. What changes should be made to the overall structure of MnSCU – the nature of the campuses, the relationship among the colleges and universities, and the role of the system office? What responsibilities should reside with the campuses, what should be handled centrally, and what services should be provided in a coordinated fashion (for example, through the Campus Service Cooperative)? How should coordination and collaboration be achieved? How do we design a system that is responsive to the changes going forward?**
-

# Appendix 3

## Membership of the Workgroups

---

### Education of the Future

Name	Position	Affiliation
Ron Anderson	President, Century College	Leadership Council
Margaret Anderson Kelliher	Trustee	Board of Trustees
Nancy Black	Faculty, Metropolitan State University	IFO (President)
Dawn Erlandson	Trustee	Board of Trustees
Alexandra Griffin	Student President, Winona State University	MSUSA
Adam Klepetar	Director First Year and Transition Programs St. Cloud State University	MSUAASF (President)
Doug Knowlton	Vice Chancellor, Academic and Student Affairs	Leadership Council
Lisa Larson	Chief Academic Officer, Hennepin Technical College	Technical College
Devinder Malhotra	Provost, St. Cloud State University	University
Chris McCoy	Interim Vice Chancellor, Information Technology	Leadership Council
Greg Mulcahy	Faculty, Century College	MSCF (President)
Scott Olson (convener)	President, Winona State University	Leadership Council
Steve Sabin	Student, Central Lakes College	MSCSA (President)
Karen Hynick (staff)	Chancellor's Fellow	System Office

## Workforce of the Future

Name	Position	Affiliation
Donna Brauer	Faculty Minnesota State University, Mankato	IFO (Academic Affairs Coordinator)
Suzanne Ciebiera	Customized Training Services Hennepin Technical College	MAPE
Brenda Dickinson	Dean of Customized Training Normandale Community College	Technical College
Diane Dingfelder	Dean of Continuing Education Winona State University	University
Dick Hanson	President, Bemidji State University	Leadership Council
Joyce Helens	President, St. Cloud Technical and Community College	Leadership Council
Kevin Lindstrom	Faculty Anoka Technical College	MSCF
Moriah Miles	Student, Minnesota State University, Mankato	MSUSA (State Chair)
Barbara Oertel	Director, Warrior Services Center Winona State University	MSUAASF
David Paskach	Trustee	Board of Trustees
Louise Sundin	Trustee	Board of Trustees
Ron Thomas (convener)	President, Dakota County Technical College	Leadership Council
Kyle Vanderflute	Student, Lake Superior College	MSCSA
Wendy Walentiny	Office and Administrative Specialist Anoka Technical College	AFSCME
Mary Rothchild (staff)	Senior System Director of Workforce	System Office

## System of the Future

Name	Position	Affiliation
Mark Carlson	Vice Chancellor, Human Resources	Leadership Council
Alex Cirillo	Trustee	Board of Trustees
June Clark	Nursing Admissions Coordinator, Minnesota State Community and Technical College, Fergus Falls	AFSCME
Colin Dougherty	Managing Director, Campus Service Cooperative	Leadership Council
Shannon Glenn	Student, Anoka Ramsey Community College and Metropolitan State University	MSCSA (Vice President)
Jim Grabowska	Faculty, Minnesota State University, Mankato	IFO
Damon Kapke	Faculty, Lake Superior College	MSCF
Laura King	Vice Chancellor, Finance	Leadership Council
Russell Raczkowski	Advisor, TRiO Programs Minneapolis Community & Technical College	MAPE
Joe Opatz (convener)	President, Normandale Community College	Leadership Council
Earl Potter	President, St. Cloud State University	Leadership Council
Michael Ramirez	Student, Minnesota State University, Mankato	MSUSA
Lori Reed	Chief Human Resource Officer, Winona State University	University
Mike Sharp	Advising Center, St. Cloud State University	MSUAASF
Mike Vekich	Trustee	Board of Trustees
Lori Voss	Chief Financial Officer, MN West Community and Technical College	Technical College
Ken Ries (staff)	Chancellor's Fellow	System Office

# References

---

- ACT National Curriculum Survey®. (2012). *Policy implications on preparing for higher standards*. Retrieved from <http://www.act.org/research/policymakers/pdf/NCS-PolicySummary2012.pdf>
- Adelman, C., Ewell, P., Gaston, P., & Geary Schneider, C. (2011, January). The degree qualifications profile: Defining degrees: A new direction for American higher education to be tested and developed in partnership with faculty, students, leaders and stakeholders. Retrieved from [http://degreeprofile.org/advantage/publication/The\\_Degree\\_Qualifications\\_Profile.pdf](http://degreeprofile.org/advantage/publication/The_Degree_Qualifications_Profile.pdf)
- Ali, H. H., Heidel, J., O'Connor, M., & Richter-Egger, D. (n.d.). Innovative models for effective collaboration between universities and community colleges. Retrieved from <http://www.unomaha.edu/step/docs/innovativemodels.pdf>
- Allen, I. E., & Seaman, J. (2013, January). Changing course: Ten years of tracking online education in the United States. Babson Survey Research Group. Retrieved from <http://www.onlinelearningsurvey.com/reports/changingcourse.pdf>
- Ambrose, S. A., Bridges, M. W., Lovette, M. C., DiPietro, M., & Norman, M. K. (2010). *How learning works: 7 research-based principles for smart teaching*. San Francisco, CA: Jossey-Bass.
- American Society for Training & Development (2009). Bridging the skills gap: New factors compound the growing skills shortage. Retrieved from <http://www.astd.org/About/~media/Files/About%20ASTD/Public%20Policy/BridgingtheSkillsGap2010.pdf>
- Assessment of Prior Learning (APL). (n.d.). *Community College of Vermont*. Retrieved from <http://www.ccv.edu/APL/index.html>
- Bass, R. (2012). Disrupting ourselves: The problem of learning in higher education. *EDUCAUSE Review*, March/April, 23-33. Retrieved from <http://www.EDUCAUSEReview.edu/ero/article/disrupting-ourselves-problem-learning-higher-education>
- Blackstone, L. (Producer/Writer/Editor), & Weihe, J. (Director). (2013, April 5). *Redesigning MN: Educating the workforce*. [Television series]. St. Paul, MN: Twin Cities Public Television. Retrieved from <http://www.redesigningmn.org/programs/episodes/?show=5#!1001463>
- Brown, M. & Diaz, V. (2012, March 5). *The Horizon Report: Emerging technologies today and tomorrow*. [Webinar, PowerPoint slides]. EDUCAUSE Review. Retrieved from <http://www.educause.edu/library/resources/horizon-report-action-emerging-technologies-today-and-tomorrow-2>
- Bryant, J. & Proctor, D. (2010). Minnesota Online learners executive summary of satisfaction and priorities: 2010 results. Noel-Levitz. Retrieved from <http://academic.project.mnscu.edu/vertical/Sites/%7BC50657D6-83F3-4A73-87DC-7F836A686EFE%7D/uploads/%7BA359E292-CBB7-405F-BE9D-9041397CC056%7D.PDF>
- Cappelli, P. (2011, Oct 24). Why companies aren't getting the employees they need. *Wall Street Journal*. Retrieved from <http://online.wsj.com/article/SB10001424052970204422404576596630897409182.html?KEYWORDS=cappelli+%22Why+companies+aren%E2%80%99t+getting+the+employees+they+need%22>
- Carnevale, A., Smith, N., & Strohl, J. (2010, June). Help wanted: Projections of jobs and education requirements through 2018. *Georgetown University*. Retrieved from <http://www9.georgetown.edu/grad/gppi/hpi/cew/pdfs/FullReport.pdf>
- Christensen, C. M., Horn, M. B., Caldera, L., Soares, L. (2011, February). Disrupting college: How disruptive innovation can deliver quality and affordability to postsecondary education. *Center for American Progress*. Retrieved from <http://www.americanprogress.org/events/2011/02/08/17059/disrupting-college/>
- Conway, M. (2011, August). Where labor supply meets labor demand: Connecting workforce development to economic development in local labor markets. *The Aspen Institute*. Retrieved from <http://dev.aspenwsi.org/wordpress/wp-content/uploads/11-020.pdf>
- Conway, M., Blair, A., & Helmer, M. (2012). Courses to employment: Partnering to create paths to education and careers. *The Aspen Institute*. Retrieved from <http://dev.aspenwsi.org/wordpress/wp-content/uploads/11-020.pdf>
- Deresiewicz, W. (2011, May 23). Faulty towers: The crisis in higher education. *The Nation*. Retrieved from <http://www.thenation.com/article/160410/faulty-towers-crisis-higher-education>

- Djurovich, A., Fergus, M., Grimes, T., Lydell, L., & Rayburn, J. (2011). Minnesota measures: 2011 report on higher education performance. *Minnesota Office of Higher Education*. Retrieved from <http://www.ohe.state.mn.us/pdf/MinnesotaMeasures2011.pdf>
- Fain, P. (2013, April 22). Credit without teaching. *Inside Higher Ed*. Retrieved from <http://www.insidehighered.com/news/2013/04/22/competency-based-educations-newest-form-creates-promise-and-questions#ixzz2RBmaCWSj>
- Fain, P. (2012, Oct 1). A disruption grows up? *Inside Higher Ed*. Retrieved from <http://www.insidehighered.com/news/2012/10/01/competency-based-education-may-get-boost>
- Field, K. (2013, March 19). Student aid can be awarded for ‘competencies,’ not just credit hours, U.S. says. *The Chronicle of Higher Education*. Retrieved from <http://chronicle.com/article/Student-Aid-Can-Be-Awarded-for/137991/>
- Fifield, M. L. (2013, Jan 22). Coming to terms with MOOCs: A community college angle. *New England Board of Higher Education*. Retrieved from <http://www.nebhe.org/thejournal/coming-to-terms-with-moocs-a-community-college-perspective/>
- Gardner, L. & Young, J. R. (2013, March 14). California’s move toward MOOCs sends shock waves, but key questions remain unanswered. *The Chronicle of Higher Education*. Retrieved from <http://chronicle.com/article/California-considers-a-bold/137903/>
- Hammond, L-D., Austin, K., Orcutt, S., & Rosso, J. (2001, Dec 27). How people learn: Introduction to learning theories. *Stanford University*. Retrieved from <http://www.stanford.edu/class/ed269/hplintrochapter.pdf>
- Hill, P. (2012, Nov 1). Online educational delivery models: A descriptive view. *EDUCAUSE Review*. Retrieved from <http://www.educause.edu/ero/article/online-educational-delivery-models-descriptive-view>
- Huckabee, C. (2013, April 22). How to improve public online education: Report offers a model. *The Chronicle of Higher Education*. Retrieved from <http://chronicle.com/article/How-to-Improve-Public-Online/138729/>
- Itasca Project. (2012, March 6). Higher education task force: Update on MnSCU/DEED workforce alignment effort. [Discussion Document]. Retrieved from <http://www.theitascaproject.com/Itasca%20Project%20-%20Higher%20Ed%20Whitepaper%20FINAL2.pdf.pdf>
- Johnson, C. (2012, October). From lagging to leading: Making Minnesota postsecondary education a national model. *Center for Policy Studies*. Retrieved from <http://www.centerforpolicy.org/files/From-Lagging-to-Leading.pdf>
- Klein-Collins, R. (2010, March). Fueling the race to postsecondary success: A 48-institution study of prior learning assessment and adult student outcomes. *Council for Adult & Experiential Learning*. Retrieved from [http://www.cael.org/pdf/PLA\\_Fueling-the-Race.pdf](http://www.cael.org/pdf/PLA_Fueling-the-Race.pdf)
- Koller, D. (2012, Sept 21). What we’re watching: Coursera founder Daphne Koller’s TED talk. *Education Next*. Retrieved from <http://educationnext.org/what-we%E2%80%99re-watching-coursera-founder-daphne-koller%E2%80%99s-ted-talk/#>
- Kolowich, S. (2013, March 20). SUNY signals major push toward MOOCs and other new educational models. *The Chronicle of Higher Education*. Retrieved from <http://chronicle.com/blogs/wiredcampus/suny-signals-major-push-toward-moocs-and-other-new-educational-models/43079>
- Kolowich, S. (2013, Feb 21). How EdX plans to earn, and share, revenue from its free online courses. *The Chronicle of Higher Education*. Retrieved from <http://chronicle.com/article/How-EdX-Plans-to-Earn-and/137433/>
- Kuh, G. D. (2008). High-impact educational practices. In *High-impact educational practices: What they are, who has access to them, and why they matter*. Retrieved from [http://www.aacu.org/leap/documents/hip\\_tables.pdf](http://www.aacu.org/leap/documents/hip_tables.pdf)
- Learning Resources Network. (n.d.). Role of continuing education in higher education.
- Lumina Foundation & Gallup. (2013, Feb 5). America’s call for higher education redesign: The 2012 Lumina Foundation study of the American public’s opinion on higher education. Retrieved from [http://www.luminafoundation.org/publications/Americas\\_Call\\_for\\_Higher\\_Education\\_Redesign.pdf](http://www.luminafoundation.org/publications/Americas_Call_for_Higher_Education_Redesign.pdf)
- Mattingly, K. D., Rice, M. C., & Berge, Z. L. (2012). Learning analytics as a tool for closing the assessment loop in higher education. *Knowledge Management & E-Learning: An International Journal*, 4(3) 236-247. Retrieved from <http://kml-journal.org/ojs/index.php/online-publication/article/viewFile/196/148>
- Mazoue, J. G. (2013, Jan 28). The MOOC model: Challenging traditional education. *EDUCAUSE Review*. Retrieved from <http://www.educause.edu/ero/article/mooc-model-challenging-traditional-education>



- McMurry, M. (2009, January). Minnesota population projections by race and Hispanic origin, 2005 to 2035. *Minnesota State Demographic Center*. Retrieved from <http://www.demography.state.mn.us/documents/>
- Michigan Department of Labor & Economic Growth. (n.d.). 21st century regional planning tool kit. Retrieved from [https://michigan.gov/documents/rsa/MiRSA\\_ConvenerToolKit4-10-07\\_193067\\_7.pdf](https://michigan.gov/documents/rsa/MiRSA_ConvenerToolKit4-10-07_193067_7.pdf)
- Misukanis, M. (2012, January). The impact of career colleges on the Minnesota economy. *New Pharos Consulting*. Retrieved from <http://www.documentcloud.org/documents/564182-a-study-of-economic-impact-of-career-colleges-on>
- New Leadership Alliance. (2012). Committing to quality: Guidelines for assessment and accountability in higher education. *New Leadership Alliance*. Retrieved from <http://www.newleadershipalliance.org/images/uploads/committing%20to%20quality.pdf>
- New, J. (2013, Feb 21). Online courses could widen achievement gaps among students. *The Chronicle of Higher Education*. Retrieved from <http://chronicle.com/blogs/wiredcampus/online-courses-could-widen-achievement-gaps-among-students/42521>
- Nunley, C., Bers, T., Manning, T. (2011, July). Learning Outcomes Assessment in Community Colleges. *National Institute for Learning Outcomes Assessment*. Retrieved from <http://learningoutcomesassessment.org/documents/CommunityCollege.pdf>
- Parry, M. (2013, April 18). Competency-based education advances with U.S. approval program. *The Chronicle of Higher Education*. Retrieved from <http://chronicle.com/blogs/wiredcampus/u-s-education-department-gives-a-boost-to-competency-based-education/43439>
- Rivard, R. (2013, April 19). EdX rejected. *Inside Higher Ed*. Retrieved from <http://www.insidehighered.com/news/2013/04/19/despite-courtship-amherst-decides-shy-away-star-mooc-provider>
- Rivard, R. (2013, March 27). Economies of online scale. *Inside Higher Ed*. Retrieved from <http://www.insidehighered.com/news/2013/03/27/florida-and-new-york-look-centralize-and-expand-online-education>
- Russell, A. (2010, October). Update on the community college baccalaureate: Evolving trends and issues. *AASCU Policy Matters*. Retrieved from <http://www.aascu.org/policy/publications/policymatters/2010/communitycollegebaccalaureate.pdf>
- Scott, J. (2012, April). Train today... Jobs tomorrow: Economic & workforce development report. *California Community Colleges Economic and Workforce Development*. Retrieved from [http://www.cccewd.net/documents/REPORT\\_EWD2012\\_FINAL\\_041912.pdf](http://www.cccewd.net/documents/REPORT_EWD2012_FINAL_041912.pdf)
- Selingo, J. (2013, Jan 9). Finally, a path toward solutions to the crisis in higher ed. *The Chronicle of Higher Education*. Retrieved from <http://chronicle.com/blogs/next/2013/01/09/finally-a-path-toward-solutions-to-the-crisis-in-higher-ed/>
- Soares, L. (2013, January). Post-traditional learners and the transformation of postsecondary education: A manifesto for college leaders. *American Council on Education*. Retrieved from <http://www.acenet.edu/news-room/Documents/Soares-Post-Traditional-v5-011813.pdf>
- Soares, L. (2010, Oct 4). The power of the education-industry partnership: Fostering innovation in collaboration between community colleges and businesses. *Center for American Progress*. (pg 1-6). Retrieved from <http://www.americanprogress.org/issues/labor/report/2010/10/04/8518/the-power-of-the-education-industry-partnership/>
- Stanford Online (n.d.). *An introduction*. [Video file]. Online learning: Exploring the possible. Retrieved from <http://online.stanford.edu/feature>
- Stanford Online (n.d.). *Faculty experimentation*. [Video file]. Online learning: Exploring the possible. Retrieved from <http://online.stanford.edu/feature>
- Stanford Online (n.d.). *The Stanford approach*. [Video file]. Online learning: Exploring the possible. Retrieved from <http://online.stanford.edu/feature>
- Stanford Online (n.d.). *Questions for the future*. [Video file]. Online learning: Exploring the possible. Retrieved from <http://online.stanford.edu/feature>
- State University of New York. (2013, March 19). SUNY board outlines implementation of Open SUNY. Retrieved from <http://www.suny.edu/sunynews/News.cfm?filename=2013-03-19-OpenSUNYRelease.htm>
- State of Idaho Board of Education. (2008, August 21). Eight-year plan for delivery of academic programs. Retrieved from [http://www.boardofed.idaho.gov/public\\_col\\_univ/documents/program\\_approval/eight-year\\_plan2-yr\\_update\\_8-08\\_ver2.pdf](http://www.boardofed.idaho.gov/public_col_univ/documents/program_approval/eight-year_plan2-yr_update_8-08_ver2.pdf)

Texas Higher Education Coordinating Board. (2012, October). 2012 regional plan for Texas higher education. Retrieved from <http://www.theccb.state.tx.us/reports/PDF/2772.PDF?CFID=42696249&CFTOKEN=48151823>

TVET Portal. (n.d.). TVET in Germany. [video]. Retrieved from <http://www.tvet-portal.net/index.php?id=39>

Twigg, C. A. (1999). Improving learning and reducing costs: Redesigning large-enrollment courses. The Pew Symposia in Learning and Technology. Retrieved from <http://www.thencat.org/Monographs/mono1.pdf>

Van Noy, M., Jacobs, J., Korey, S., Bailey, T., & Hughes, K. (2008). Noncredit Enrollment in Workforce Education: State Policies and Community College Practices. *American Association of Community Colleges*. (pg. 2-3; 24-29). Retrieved from <http://www.aacc.nche.edu/Publications/Reports/Documents/noncredit.pdf>

Western Governors University. (2013, Jan 29). Governors announce plans for WGU Missouri, WGU Tennessee. Retrieved from <http://www.wgu.edu/blogpost/governors-announce-wgu-missouri-tennessee>

Workforce Assessments. (2012-2013). [Statewide reports; agriculture, energy, engineering, healthcare, information technology, manufacturing, natural resources, transportation]. Retrieved from <http://www.mnscu.edu/business/workforceassessment/index.html>

Woolsey, L., & Groves, G. (n.d.). State sector strategies coming of age: Implications for state workforce policymakers. Retrieved from <http://www.nga.org/files/live/sites/NGA/files/pdf/2013/1301NGASSSReport.pdf>



Minnesota State Colleges and Universities  
30 7th St. E., Suite 350  
St. Paul, Mn 55101-7804  
Twin Cities: (651) 201-1800  
Toll free: 1-888-667-2848

Upon request, this document is available in alternative formats by calling one of the numbers above.

The Minnesota State Colleges and Universities system is an Equal Opportunity employer and educator.