Minnesota Office of Higher Education

Minnesota Measures

2007 Report on Higher Education Performance

"In our knowledge-based economy, Minnesota relies heavily on our higher education institutions to respond to change and keep our state competitive. Every college in Minnesota must play an important role."

– Governor Tim Pawlenty

Table of Contents

Executive Summary 4

Introduction 7
College Readiness and Preparation 8
About the Report and the Data 9

Goal One: Improve success of all students, particularly students from groups traditionally underrepresented in higher education. 10
College Participation 11
Retention 12
Degree Completion 13
Achievement Gap 19
Degree Attainment 21

Goal Two: Create a responsive system that produces graduates at all levels who meet the demands of the economy. 22
Degree Production 23
Degree Alignment 24

Goal Three: Increase student learning and improve skill levels of students so they can compete effectively in the global marketplace. 28
Learning Outcomes 29

Goal Four: Contribute to the development of a state economy that is competitive in the global market through research, workforce training and other appropriate means. 30
Research and Discovery 31

Goal Five: Provide access, affordability and choice to all students. 34
Access 35
Net Prices 37
Affordability 39

Next Steps 42

Appendix 44
A. Advisory Participants 45
B. The Process 46
C. Tuition Rates 47
D. Rankings 47
E. Definitions, Terms and Sources 49

Executive Summary

In 2005, Governor Tim Pawlenty and the Minnesota Legislature charged the Minnesota Office of Higher Education with developing an accountability system to measure the higher education sector's effectiveness in meeting state goals. Minnesota's leaders recognized that the knowledge, creativity and intellectual capacity of the state's people are the most promising strategic advantage in a global economy.

The purpose of this report is to provide information that will lead to educational improvement and inform policy discussions relating to higher education. Policymakers, employers and educators were involved in a process to develop five state goals which serve as the organizing framework for this report.[1]

Minnesota cannot rest on past success. To compete effectively, the state must build on its educational strengths and identify and address weaknesses head on. Among states, Minnesota ranks favorably on several key educational measures such as high school graduation rates and the percentage of the state's citizens who possess college degrees. These select facts, however, in the absence of a more comprehensive set of measures, paint an incomplete picture of Minnesota's higher education effectiveness. While Minnesota excels in some areas, more often it performs at or near the national average on indicators important to the state's educational and economic vitality.

The growing international competition for intellectual capital cannot be ignored. Throughout this report, Minnesota is compared most often with other states because such comparisons are readily available. However the true challenge to Minnesota's economy and quality of life comes from rapidly developing nations including China and India. Long admired for its higher education excellence, the U.S. now finds its leadership position challenged by efficient, results-driven schools in countries that are educating more of their citizens to more advanced levels than the U.S.[2] The American higher education system may no longer be the best in the world, making the development of international benchmarks an imperative for global competitiveness.[3]

For Minnesota to lead consistently in higher education, the first step is to lead on accountability. *Minnesota Measures 2007* is the first of a planned series of annual reports. The focus of the report will evolve in the future so it can be an effective state policy tool and an agenda for improved focus and quality.

GOAL ONE | Improve success of all students, particularly students from groups traditionally underrepresented in higher education.

Goal one addresses the rates at which students are pursuing, persisting toward and completing their college degrees in Minnesota. The goal presumes that the primary role of colleges and universities, regardless of unique institutional missions, is enrolling students who fit the profile of the institution and helping those students learn, develop and move through their chosen program to completion.

When compared nationally, Minnesota's college participation and graduation rates are favorable, though there is considerable room for improvement.

Most concerning is a consistent gap between the college participation and degree-earning rates of black, Hispanic and American Indian students and their Asian and white counterparts.

The data suggest Minnesota is not as prepared as it should be for the demographic shift occurring in its population. As growth occurs almost exclusively among young people of color, the state's failure to address the achievement gap at all levels of education will constrain future growth and opportunity.

GOAL TWO | Create a responsive system that produces graduates at all levels who meet the demands of the economy.

An effective higher education sector is dynamic and produces graduates with current and relevant skills, knowledge and abilities who are needed and valued in the Minnesota economy. Colleges and universities, whether public or private, offer both a private benefit to individuals and a public benefit to the state's quality of life and economy. This goal considers the alignment of degrees awarded with the needs of Minnesota.

On measures of degree production at all levels, Minnesota is about average among states. The data also provide specifics about the number and proportion of degrees awarded in science, mathematics, engineering, technology and health care fields. On these measures, Minnesota's performance is mixed.

GOAL THREE | Increase student learning and improve skill levels of students so they can compete effectively in the global marketplace.

Higher education has not made the same progress as K–12 in implementing measures to assess student learning. While student learning is the essential purpose of higher education, clear indicators by which state and international comparisons can be made do not currently exist. Future indicators for this goal may be developed to assess Minnesota student learning based on professional certifications, graduate program entrance assessments and other measures.

GOAL FOUR | Contribute to the development of a state economy that is competitive in the global market through research, workforce training and other appropriate means.

Goal four recognizes the important role academic research and employee training play in determining the competitive position of the state in the global economy. While employers perform a substantial amount of research and conduct workforce training for their employees, so too do the state's public institutions of higher education.

As the state's only land-grant institution, the University of Minnesota has a mission of academic research and contributes in ways that warrant separate measurements. The available studies suggest that the University of Minnesota must expand its research capacity and funding significantly to achieve its aspiration to be considered among the top research institutions in the world.

Providing responsive and customized workforce training to employers was also identified as an objective for the state. However, standard benchmarks are not yet available for comparing Minnesota's effectiveness on this indicator.

GOAL FIVE | Provide access, affordability and choice to all students.

The cost of attending college continues to rise, requiring a greater financial commitment from students and their families in order to pursue and complete a college degree. Minnesota supports the values of access, affordability and choice in higher education through development of a large public system of colleges and universities and a need-based financial aid program that serves students attending public and private institutions. Goal five presumes that all Minnesotans who stand to benefit from higher education should be reasonably able to access and afford it.

The measures in this goal provide information on student enrollment, net price, borrowing and financial expectations. It is difficult to ascertain comparable affordability measures from state to state or other nations. These indicators illustrate the growing financial expectations placed on students and their families and offer educators and policy-makers ways of looking at the real impact of tuition and fee increases on students.

The charge to the Minnesota Office of Higher Education was to provide useful information on the performance of the higher education sector. *Minnesota Measures* is a work in progress, with next steps identified on page 42 of this report. It is up to state and educational leaders to provide the vision, identify priorities and set targets needed to move Minnesota forward.

Introduction

Minnesota is home to more than 150 public and private higher education institutions serving more than 350,000 students enrolled in credit courses each year. The state's colleges and universities offer students a broad range of options, from short-term certificate programs to baccalaureate degree programs to graduate and professional programs.

The University of Minnesota, the Minnesota State Colleges and Universities System and many private institutions have strategic plans and metrics to gauge their progress toward management goals. This report reflects a first statewide effort to assess the performance, effectiveness and productivity of Minnesota's diverse higher education sector as a whole.

The statewide purpose of higher education can sometimes be supplanted by individual institutional interests, according to a Blue Ribbon commission report by the National Conference of State Legislatures. A better strategy involves all institutions working toward a common statewide agenda.[4]

The purpose of this report is to provide information that will lead to educational improvement and inform policy decisions relating to higher education. The report will be a dynamic tool updated annually and widely available. It is not intended to be used by prospective students in selecting a college.

The Office of Higher Education consulted with the National Center for Higher Education Management Systems in developing this accountability system for Minnesota. NCHEMS applied its expertise and experience with similar accountability efforts in other states to this project. Policymakers, students, employers and educators were involved in a process to develop state goals and supporting indicators, which serve as the organizational framework for this report.[5] A list of participants is contained in the appendix.

The report will evolve as new methods of assessment and comparison become available. Taken individually, each indicator provides a limited perspective. Taken together and assessed over a period of years, the indicators can provide a meaningful measure of Minnesota's progress and position relative to other states and countries in critical areas.

The full *Minnesota Measures 2007* report, and project updates are available online at **www.ohe.state.mn.us.**

Minnesota Measures

A report on higher education performance

College Readiness and Preparation

One of the most reliable predictors of student participation and success in college is the academic preparation of students in high school. The effectiveness of the higher education sector depends, in part, on the preparation of new students who enter the state's colleges and universities directly out of high school. Students who complete more rigorous courses in core academic subjects in high school tend to score consistently higher on standardized tests and college entrance assessments. These students are more likely to participate and succeed in college.

The challenges facing the Minnesota K–12 system are great, and Minnesota's K–12 outcomes are mixed.

- Minnesota students who took the ACT posted the highest average score in the country in 2005. However, only 29 percent of students who took the test met national college readiness benchmarks in all four subject areas: English, reading, math and science.[6] Significantly lower average ACT scores were posted for black, Hispanic and American Indian students than for white and Asian students.

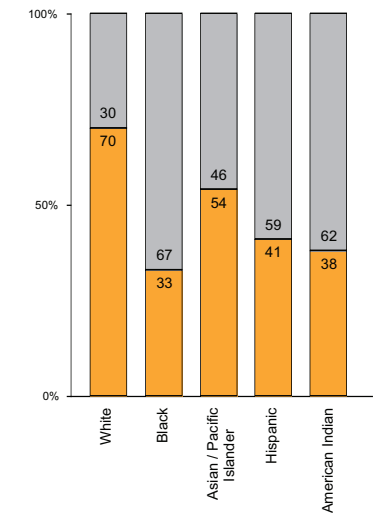
- The Minnesota Comprehensive Assessments–Series II (MCA-IIs), are tests that measure student progress toward Minnesota's academic standards and meet federal requirements. Reading and mathematics tests are given to students in grades 3–8, 10 and 11. The 2006 test results for tenth and eleventh-graders indicate that Minnesota high school students lack important knowledge and skills in mathematics and reading. Test results indicate black, Hispanic and American Indian students were lacking in important knowledge and skills in high school compared with their Asian and white counterparts.

- Thirty-six percent of public high school graduates entering Minnesota's public colleges and universities required one or more developmental courses.[7] Minnesota's public community and technical colleges, in particular, are geared to help students prepare for college-level work with remedial courses. Colleges and universities with the least selective admissions processes admit students who are generally less prepared than students at more selective colleges and universities.

Increasingly, collaborative efforts between the higher education sector and K–12 schools are improving the college-readiness levels of high school graduates. Examples include:

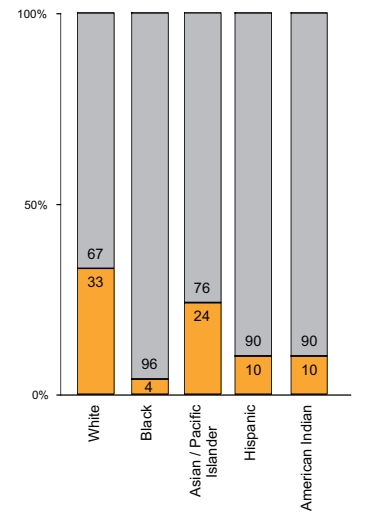
- More than 7,000 high school juniors and seniors enroll annually at no charge in courses offered at Minnesota's public and private colleges and universities through a program called Post-Secondary Enrollment Options. The program offers students an opportunity to experience college-level work while earning college credit.

MCA-II
10th Grade Reading 2006



Source: Minnesota Department of Education; Assessment MCA-II, 2006

MCA-II
11th Grade Math 2006



Source: Minnesota Department of Education; Assessment MCA-II, 2006

- By working with an accredited college or university, more than 100 Minnesota high schools offer their students college-level courses through concurrent enrollment.
- Many colleges and universities have joined forces with local high schools to provide early college awareness services and programs to students from groups traditionally underrepresented in college. Through such programs, students learn about preparing, planning and paying for college and explore their career interests.
- Emerging collaborations at the state level, through the P-16 Council and the Governor's Education Cabinet, hold potential for new partnerships and greater alignment.

Challenges faced by the K–12 system have implications for higher education. In Minnesota, the high school graduation standards are changing. There is a renewed emphasis on core subjects and more rigor for all students. Minnesota's future depends on a strong education system, and the K–12 experience is the essential building block for a lifetime of learning.

"Minnesota high school students lack important knowledge and skills in mathematics and reading."

About the Report and the Data

The Office of Higher Education examined many approaches to identify relevant and fair indicators in *Minnesota Measures*. Where available and appropriate, the data were disaggregated to identify opportunities and concerns specific to groups traditionally under-represented in higher education. When possible, national and international comparisons were included. Some indicators were selected primarily because they offered a national or international comparison.

The Office of Higher Education favored population data over samples and estimates when such data were available.

In some cases, data from different sources were used in a single indicator. While such computations don't reflect the situation with absolute accuracy, these results probably fall within an acceptable margin of error of the actual result. Further, since the goal was to look at the relative position of Minnesota compared with other states, using the same computation over a period of years for each state provided a reasonable basis for comparison. Traditional measures such as graduation rates are not perfect, but they provide a common basis for comparison at both the state and institutional level.

Some of the chosen measures may differ quantitatively from measures described in other reports (such as *Measuring Up 2000*, produced by the National Center for Public Policy and Higher Education). To the extent information was available about alternative methodologies, the Office of Higher Education compared various approaches and refined some of the methods.

Finally, some of the indicators are based on sample data, which means the data reflect estimates and are subject to a margin of error. The Office of Higher Education has evaluated these margins for the data reported and they are within the acceptable range for estimates. Margin of error is not reported for indicators in this report.

Definitions, Terms and Sources listed in the report are described in Appendix E.

1

Improve success of all students, particularly students from groups traditionally underrepresented in higher education.

Success takes many forms and must be considered from multiple perspectives. Typical measures such as college participation, retention, graduation and degree attainment were included in this goal. Together, these and other indicators begin to paint a picture of how students thrive and persist in their college of choice. Where possible, the success of students of color was compared with white students. The impact of transfer was also addressed.

In general, and not surprisingly, students attending more highly selective institutions fared better on success measures than those with open admissions policies. Still, the overall results for this goal across multiple indicators were less than impressive for Minnesota. Further, the data highlight consistent gaps between the success of students of color and their white counterparts.

College Participation

Indicator 1A: What percentage of Minnesota high school graduates enroll in postsecondary education in the year following graduation?

High school graduation is a critical juncture for young people. The rate at which recent high school graduates immediately enter college can be an indication of overall college readiness, college-going behavior and the effectiveness of college awareness programs. Participation rates also reflect the higher education sector's effectiveness in recruiting and serving new students from a range of cultural and socio-economic backgrounds.

Of the approximately 65,000 high school graduates in 2004, about one-third (or 22,000) did not pursue college in the year following graduation. Minnesota's college participation rate has been consistently higher than the national average since 2000. While this indicator reveals much about college-going behavior in Minnesota, it does not include students who do not graduate from high school or who delay college enrollment. Black, Hispanic and American Indian graduates are participating in college at significantly lower rates at Minnesota institutions than their white and Asian counterparts.

Compare Minnesota: College Participation Rates of Recent High School Graduates

	2000	2002	2004
Minnesota	63.9%	64.6%	65.3%
National Average	56.5%	56.8%	55.3%
Best State (SD)			68.8%
Second-Best State (NY)			67.9%

This table includes out-of-state enrollment.

Source: Post-Secondary Education Opportunity

Percent of Minnesota High School Graduates Enrolled in Minnesota Colleges and Universities by Race/Ethnicity 2004

Black	41.3%
Hispanic	33.7%
Asian or Pacific Islander	54.0%
American Indian	34.6%
Total students of color	**44.1%**
White	**48.1%**
In-state participation rate (All Minnesota high school graduates enrolled in Minnesota institutions)	47.6%
Total Minnesota participation rate (an additional 17.6% enroll in other states)	65.3%

Note: The racial and ethnic breakdowns above do not include out-of-state enrollment because the information was not available by race or ethnicity.

Source: Minnesota Department of Education and the Minnesota Office of Higher Education enrollment database for Minnesota enrollment; National Postsecondary Enrollment Statistics for out-of-state enrollment.

Retention

Indicator 1B: What percentage of first-year, first-time, full-time students enrolled at Minnesota colleges were enrolled at the same institution the following year?

Retention is an indication of college readiness, student success and the capacity of institutions to consistently recruit and enroll students who fit their institutional profile. If a student returns for the second year of full-time study at a college, he or she has an excellent chance of graduating four to six years later.[8] The majority of students who withdraw from college do so between the first and second year. There are costs to both institutions and individuals when students leave. For institutions, failing to retain students results in lower tuition revenue, potential loss of faculty and increased recruitment costs. For students, attendance at multiple institutions may have a negative effect on their ability to attain a degree within six years.[9]

Compare Minnesota: 2004 Retention Rates at Four-Year Institutions

Minnesota	78.3%
Top 10 New Economy States	83.2%
National Rate	79.4%
Best State (CA)	85.8%
Second-Best state (MA)	85.0%

Source: Integrated Postsecondary Education Data System

Minnesota Detail: 2004 Retention by Institution Type at Four-Year Institutions

State Universities	72.5%
University of Minnesota	82.6%
Minnesota Private Colleges (not-for-profit)	84.4%

Source: Integrated Postsecondary Education Data System

Compare Minnesota: 2004 Retention Rates at Two-Year Colleges

Minnesota Rate	56.9%
Top 10 New Economy States	62.6%
National Rate	59.2%
Best State (VT)	72.9%
Second-Best State (WY)	70.4%

Source: Integrated Postsecondary Education Data System

Four-Year Institutions:

Studies show that first-to-second year retention rates are considered a reasonable predictor of a student's likelihood of persisting to degree completion. In Minnesota, 78 percent of first-time, full-time students at four-year colleges and universities returned to the same college for a second academic year, which is on par with the national rate. Minnesota's private, not-for-profit four-year institutions ranked sixth among groups of similar institutions for all states. In 60 percent of states, retention rates at private, not-for-profit four-year colleges were better than those at public four-year institutions.

Two-Year Institutions:

The story behind retention rates at two-year colleges is less clear because the rates do not reflect the reasons a student might not return to college, particularly at institutions with transfer missions. For example, some students in the Twin Cities metropolitan area are enrolled in more than one institution concurrently.

In Minnesota, students can now complete all or part of a package of general education credits called the Minnesota Transfer Curriculum. All public and some private four-year institutions have agreed to accept the Transfer Curriculum, in whole or in part, as fulfilling their general education requirements.[10] While the Transfer Curriculum has clarified and simplified the transfer process for many students, it may also have a negative impact on retention rates at two-year colleges with strong transfer missions.

Still, retention rates are widely accepted as one measure of student persistence and low retention rates may indicate that some students at an institution have not found the right fit.

Data and methodology:

Weighted averages from the Integrated Postsecondary Education Data System were used. The denominator for the first-to-second year retention computation was the number of first-time, full-time undergraduates in a year. The numerator was the number from that group who return for a second year at that same institution, including students that switch from full- to part-time status. Students who complete short certificate or diploma programs that take less than one year to complete were counted as retained, according to the data source.

Degree Completion

Indicator 1C: What was the graduation rate for students attending Minnesota four-year colleges and universities?

Degree completion at four-year institutions is a clear measure of student and institutional success. For students attending Minnesota's public and private four-year institutions, degree completion is most often the goal.

Graduation rates vary greatly among institutions, but are higher at institutions with more selective admissions criteria and those that serve predominately traditional students who are able to enroll full-time. Part-time students are excluded from this measure.

Compare Minnesota: Graduation Rates at Four-Year Institutions 2004

	Graduation Rates	
	Four-year	Six-year
Minnesota Four-Year Colleges	35.8%	57.1%
Public Colleges	22.8%	48.9%
Private Colleges	55.4%	67.7%
Top 10 New Economy States	39.4%	57.9%
National Average	28.5%	48.6%
Best State*	48.1%	63.9%
Second-Best State*	48.0%	63.7%

*The state with the best four-year graduation rate was Massachusetts, and the second best state was Delaware. The state with the best six-year graduation rate was Delaware, and the second best state was Massachusetts.

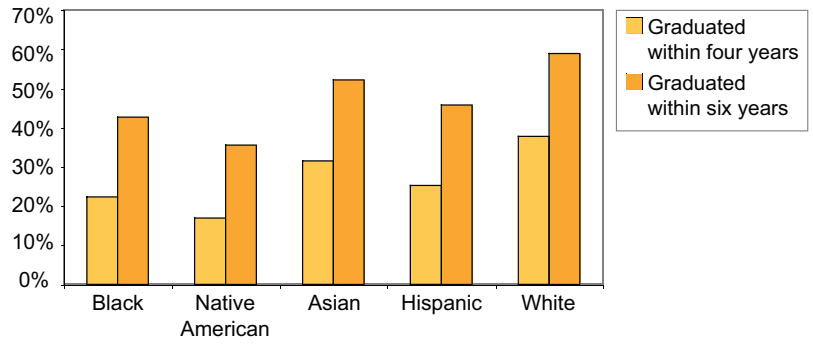
Source: Integrated Postsecondary Education Data System

Data and methodology:

The graduation rate is a standard used nationally, measuring the number of graduates who enrolled as first-time, full-time undergraduates at the institution four and six years earlier. These numbers were compared against the total number of students who were enrolled as first-time, full-time undergraduates four and six years earlier. The six-year graduation rate is the standard used in national publications. This report also includes the four-year rate to provide additional context and information.

"Average graduation rates for students of color were consistently below the state's overall graduation rates."

Minnesota Graduation Rates at Four-Year Institutions by Race/Ethnicity (2004)



Source: Integrated Postsecondary Education Data System

Minnesota Detail:
2004 Retention and Graduation Rates for Minnesota's Four-Year Colleges and Universities

Institution	First- to second-year Retention	Graduation Rates	
		Four-year	Six-year
Augsburg College, Minneapolis	81%	35%	55%
Bemidji State University, Bemidji	70%	24%	42%
Bethany Lutheran College, Mankato	70%	52%	73%
Bethel University, Arden Hills	85%	62%	73%
Carleton College, Northfield	96%	87%	90%
College of St. Benedict, St. Joseph	88%	76%	82%
College of St. Catherine, St. Paul	82%	NA	59%
College of St. Scholastica, Duluth	83%	59%	67%
Concordia College, Moorhead	78%	59%	65%
Concordia University, St Paul	68%	27%	39%
Crown College, St. Bonifacius	70%	29%	55%
Gustavus Adolphus College, St. Peter	91%	69%	71%
Hamline University, St. Paul	80%	65%	71%
Macalester College, St. Paul	93%	73%	81%
Metropolitan State University, Minneapolis and St. Paul	62%	18%	33%
Minneapolis College of Art and Design	91%	NA	71%
Minnesota State University, Mankato	78%	19%	48%
Minnesota State University Moorhead	66%	14%	41%
Northwestern College, Roseville	79%	41%	57%
St. Cloud State University	72%	14%	43%
St. Johns University, Collegeville	91%	74%	82%
St. Mary's University, Winona	75%	49%	58%
St. Olaf College, Northfield	94%	79%	84%
Southwest Minnesota State University, Marshall	71%	21%	49%
University of Minnesota, Crookston	44%	26%	37%
University of Minnesota, Duluth	76%	21%	46%
University of Minnesota, Morris	84%	38%	52%
University of Minnesota, Twin Cities	86%	29%	56%
University of St. Thomas, St. Paul	85%	54%	71%
Winona State University, Winona	73%	25%	51%

Source: Integrated Postsecondary Education Data System.

These data represent only first-time, full-time undergraduate students who remained at a single institution from one year to the next.

Note: Some institutions serve high percentages of adult, non-traditional students who tend to enroll in college part-time, leading to lower completion rates over four or six years. For example, 74 percent of undergraduate students attending Metropolitan State University are 25 or older, and just 34 percent of students are attending full-time.

Degree Completion

Indicator 1D: What were the three-year graduation rates at Minnesota's two-year colleges?

The three-year graduation rate indicates how many full-time students who enroll at two-year colleges stay to complete a certificate, diploma or associate's degree within three years.

The graduation rate at two-year colleges should be considered one measure of success among many. Community colleges serve as important stepping stones for enrollment at four-year institutions. Many students attending two-year institutions transfer to four-year institutions before completing a degree, diploma or certificate. Inconsistencies across states in how community colleges serve students make national comparisons difficult.

Some Minnesota two-year colleges offer primarily technical and career programs, while others are predominately transfer institutions that prepare students to enter baccalaureate degree programs.

Compare Minnesota:
Graduation Rates at Two-Year Colleges 2004

	Three-Year Graduation Rates
Minnesota	35.8%
Top 10 New Economy States	26.1%
National Average	32.4%
Best State (SD)	65.7%
Second-best State (WY)	55.9%

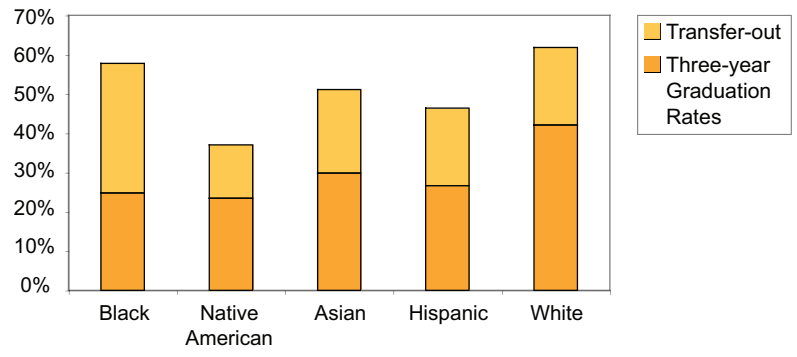
Source: Integrated Postsecondary Education Data System

Still others serve students in both types of programs equally. The graduation rate alone is a limited outcome measure for two-year colleges, particularly those with a transfer preparation mission. As the table on the following page illustrates, in general, two-year colleges with high transfer-out rates have lower graduation rates.

Data and methodology:

The graduation rate was computed by taking the number of graduates who enrolled as first-time, full-time undergraduates at the institution three years earlier. This number was compared against the total number of students enrolled as first-time undergraduates three years earlier and a proportion was derived. Students who complete degrees, diplomas and certificates that take one year or less to complete were considered completers for the purpose of this measure.

Minnesota Detail: Graduation and Transfer-out Rates for Two-Year Institutions by Race/Ethnicity (2004)



Source: Integrated Postsecondary Education Data System

"Students of color were slightly more likely to transfer from a two-year college than white students."

Minnesota Detail:
2004 Transfer, Retention and Three-Year Graduation Rates at Two-Year Colleges

Institution	First-to-second Year Retention	Three-year Graduation Rate	Transfer-out Rate
Academy College	NA	41%	NA
Alexandria Technical College	71%	57%	12%
Anoka Technical College	62%	43%	14%
Anoka-Ramsey Community College	47%	13%	43%
Brown College	68%	64%	22%
Central Lakes College	56%	41%	19%
Century College	55%	17%	28%
Dakota County Technical College	64%	44%	10%
Duluth Business University, Inc.	78%	58%	NA
Dunwoody College of Technology	74%	54%	NA
Fond du Lac Tribal and Community College	54%	17%	22%
Globe College	92%	51%	2%
Hennepin Technical College	62%	36%	15%
Hibbing Community College	55%	36%	24%
High-Tech Institute of Minnesota	65%	50%	NA
Inver Hills Community College	50%	8%	37%
Itasca Community College	56%	37%	21%
Lake Superior College	56%	21%	22%
Leech Lake Tribal College	53%	15%	NA
Mesabi Range Community & Technical College	49%	50%	15%
Minneapolis Community & Technical College	52%	16%	24%
Minnesota State College-Southeast Technical	68%	42%	12%
Minnesota State Community & Technical College	58%	39%	18%
Minnesota West Community & Technical College	63%	51%	14%
Normandale Community College	49%	12%	38%
North Hennepin Community College	57%	18%	31%
Northland Community & Technical College	53%	43%	19%
Northwest Technical College	61%	40%	16%
Pine Technical College	65%	24%	23%
Rainy River Community College	44%	26%	34%
Rasmussen College, Minnetonka	82%	57%	NA
Rasmussen College, St. Cloud	74%	57%	NA
Ridgewater College	59%	48%	18%
Riverland Community College	61%	44%	14%
Rochester Community and Technical College	58%	27%	20%
Saint Cloud Technical College	65%	52%	11%
Saint Paul College	62%	44%	11%
South Central College	60%	46%	12%
Vermilion Community College	51%	28%	39%

Data source: Integrated Postsecondary Education Data System

Note: Data for the table were based on 2004 graduation and retention numbers. The transfer-out rates were computed as the proportion of the cohort (first-year, full-time students) who entered three years prior.

Minnesota Detail: Transfer Patterns Fall 2005

Transferred From	Transferred To				
	State University	Community & Technical College	University of Minnesota	Private Career School	Private College
State University	407	1,038	190	129	57
Community & Technical College	2,479	3,094	763	286	485
University of Minnesota	316	660	87	43	129
Private Career School	45	101	6	118	44
Private College	328	509	187	39	137
Minnesota institution not specified	42	94	4	3	13
Out of State	1,521	1,859	710	328	501
Institution not specified	225	986	813	2,874	1,795
Total	**5,364**	**8,344**	**2,761**	**3,820**	**3,163**

Source: Office of Higher Education: Student Enrollment Record Database 2005

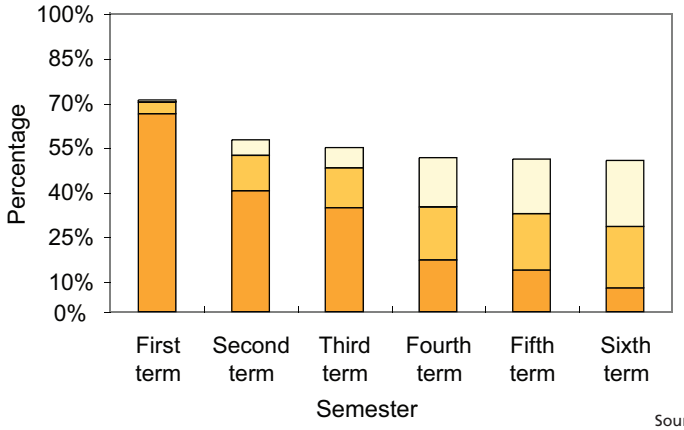
Note: This table includes only student transfers into Minnesota institutions in Fall 2005. It does not reflect a full year of transfer activity.

Transfer Students:

Students who transfer out of one institution to attend another have a negative effect on graduation and retention rates for the institution, but may still be successful students and degree completers. The table above shows transfer patterns from various institution types into Minnesota postsecondary institutions.

However, some transfers may be less productive than others. While transferring from a two-year college to a four-year college is considered a desired path for many, some transfer activity warrants further study. In 2005, more than 2,000 students, transferred into a community and technical college from a Minnesota four-year institution. While there are often good reasons for such moves, research shows that these transfer patterns may reduce the probability that a student will complete his or her academic goal within a reasonable amount of time.[11]

Retention, Transfer and Graduation Patterns for MnSCU Two-year Colleges - Fall 2002 Cohort



This chart shows average retention, graduation and transfer data for the group of new students that enrolled in MnSCU public two-year colleges in fall 2002. The chart includes full- and part-time students over a period of three years following their first semester.

Source: Minnesota State Colleges and Universities, Research and Planning 2006

Degree Completion

Indicator 1E: What was the proportion of degree completers to students enrolled at four-year and two-year institutions each year?

Because the graduation rates in the previous indicator do not include part-time students, this indicator provides an alternative measure of how efficiently students move through their programs to degree completion. The proportion of degree completers to student enrollment considers the number of degrees earned by full- or part-time students as a ratio of the total headcount enrollment for the year.

In 2004, approximately 15 percent of all students enrolled in Minnesota's four-year institutions completed bachelor's degrees.

Compare Minnesota: Bachelor's Degrees Awarded as a Proportion of Total Undergraduate Headcount Enrollment at Four-Year Institutions

	2001	2002	2003	2004
Minnesota	13.6%	14.2%	14.6%	15.2%
Top 10 New Economy States	14.8%	14.7%	15.1%	15.4%
National Average	15.2%	15.2%	15.4%	15.7%
Best state (WA)				19.7%
Second-best State (CA)				19.5%

Source: Integrated Postsecondary Enrollment Data System

"About 14 percent of all students enrolled at Minnesota two-year colleges completed a certificate program, diploma, or associate degree in 2004."

Compare Minnesota: Certificate, Diploma and Associate Degrees Awarded as a Proportion of Total Headcount Enrollment at Two-Year Colleges

	2001	2002	2003	2004
Minnesota	11.1%	11.2%	12.0%	13.8%
Top 10 New Economy States	5.7%	6.0%	6.6%	7.2%
National Average	7.2%	7.4%	7.8%	8.3%
Best State (SD)				25.6%
Second Best State (ND)				17.5%

Source: Integrated Postsecondary Education Data System

Reasons why Minnesota students may not have completed degrees at higher rates may include:

- Students enrolled part time to allow more time for work
- Students are unprepared for college-level work requiring more remedial courses
- Students changed programs midway through their education, or pursued programs requiring more than two or four years of study
- Students did not understand graduation requirements
- Students transferred out before completing a degree

Minnesota has improved slightly on this measure since 2001. The proportion of graduates to total headcount enrollment has increased for both four-year institutions and two-year colleges.

Data sources and methodology:

The graduate rates on page 15 show the rate at which a cohort of students entered an institution and persisted through graduation. This measure of completion looks at the proportion of graduates each year to the total headcount enrollment, which includes both full- and part-time students.

Achievement Gap

Indicator 1F: Were students of color completing programs at the same rate as their white counterparts? Were students of color pursuing and completing degrees in high-demand STEM and health care fields at rates comparable to their white counterparts?

Minnesota's changing demographics reflect dramatic increases among communities of color, with little or no growth projected for whites. As these shifts occur, the state has a vested interest in seeing students in all racial and ethnic groups persist and complete degrees at rates that are nationally competitive with and comparable to their white counterparts. Given the relatively low participation rates (at least at Minnesota schools) of the students of color observed in Indicator 1A, the first step was to consider overall enrollment and degree production at the bachelor's degree level and below.

Students of color are not progressing to degree completion at the same rates as white students. This conclusion is supported by other indicators as broken down by race and ethnicity, including the graduation rate data and transfer-out data outlined earlier in goal one.

The table shows that while students of color were enrolling in Minnesota's two-year institutions at rates about equal to their proportion of the state's population (Minnesota's minority population age 18 to 44 comprised approximately 13.8 percent of the state's total population in 2004), not all groups were completing credentials at this same rate. Exactly why this was true is a subject for further research.

Minnesota Detail: Enrollment and Degree Completion Data by Race/Ethnicity – 2004

	Two-year institutions		Four-year institutions	
Race/ethnicity	Proportion of Total Enrollment	Proportion of All Credentials Awarded	Proportion of Total Enrollment	Proportion of All Bachelor's Degrees Awarded
Black	6.8%	4.7%	2.7%	2.0%
Native American	1.0%	1.0%	0.8%	0.6%
Asian	3.4%	2.9%	3.9%	3.3%
Hispanic	1.5%	1.3%	1.3%	1.2%
Students of Color	12.7%	9.9%	8.7%	7.1%
White	71.0%	73.8%	72.0%	80.3%

Source: Integrated Postsecondary Education Data System. Data from 2004 was chosen because this is the latest year that adjudicated data is available for both enrollment and degree completions.

Note: The percentages will not add up to 100% vertically, as data on foreign students and those for whom race was unreported have been left out.

Achievement Gap 1F continued

Another significant measure of success for underrepresented groups is the extent to which they are participating in critical high-wage fields such as science, technology, engineering and mathematics (or STEM) and health care fields.

As STEM fields become increasingly important to Minnesota's global competitiveness, and national studies show that enrollment in these high-wage fields has been declining[12], the state has a growing interest in seeing more students in all racial and ethnic groups complete STEM programs. The same is true for health care.

The percentages shown in the following table are the number of credentials earned in each of the critical fields as a proportion of the total credentials earned at each level by each group (certificate/diploma, associate degree, and bachelor's degree).

Note that the data shown for students of color was aggregated. The numbers of students in individual racial and ethnic groups were relatively small; as such, small changes in the number of degree recipients can cause dramatic variations from year to year. The data used were for 2004 to maintain consistency with the preceding table for this indicator.

Of some cause for concern was the higher percentages of awards granted to students of color at the lower levels (certificates, diplomas and associate degrees), especially in the health fields. This data only tells a partial story, and further research will be required.

Minnesota Detail: Completion of Degrees in Critical Fields 2004

Health Care Field			
	Certificates/Diplomas	Associate Degrees	Bachelor's Degrees
Students of Color	40.0%	21.2%	1.0%
White	30.6%	21.2%	5.0%
STEM Disciplines			
	Certificates/Diplomas	Associate Degrees	Bachelor's Degrees
Students of Color	7.4%	18.4%	23.1%
White	6.4%	13.1%	16.6%

Source: Integrated Postsecondary Education Data System

Degree Attainment

Indicator 1G: What proportion of young adults possess a postsecondary degree?

Degree attainment is another measure of student and institutional success. This indicator provides an important perspective on higher education results. The measure may be affected by migration patterns of young adults who may or may not have attended college in Minnesota.

Minnesota performed well on this measure when compared nationally, ranking second in the country on the percentage of young adults (25–34) who hold an associate degree or higher. Minnesota ranked eighth in the nation on the percentage with a bachelor's degree or higher. This indicator supports Minnesota's claim of having a well-educated workforce.

Compare Minnesota: Proportion of Population Age 25–34 Holding an Associate Degree or Higher

	2002	2003	2004
U.S. Data			
Minnesota (Second-Best State)	46.8%	48.2%	48.7%
Top 10 New Economy States	41.2%	41.5%	42.5%
National Average	37.1%	37.6%	38.4%
Best State (MA)			56.3%
International Data			
Canada		53.0%	60.0%
Japan		52.0%	54.0%

Source: Organization for Economic Cooperation and Development (international data). American Community Survey (US data)

Compare Minnesota: Proportion of Population Age 25–34 Holding a Bachelor's Degree or Higher

	2002	2003	2004
Minnesota	35.9%	37.7%	36.3%
Top 10 New Economy States	33.9%	34.2%	34.8%
National Average	29.4%	29.7%	30.3%
Best State (MA)			48.6%
Second-Best State (CT)			40.7%

Source: American Community Survey

2

Create a responsive system that produces graduates at all levels who meet the demands of the economy.

This goal places an emphasis on degree completion overall and in fields identified as critical to the state's economy.

An educated citizenry can be the foundation for a strong and competitive workforce. Higher education at all levels is embracing its role in preparing students both for a lifetime of engaged citizenship and productive work. In terms of overall degree production per capita, Minnesota has been consistently above average at every award level and ranks twelfth per capita nationwide. The analysis of degree production in health and STEM fields is incomplete, and must be based upon a study of shortages and opportunities for graduates in STEM and health fields. The Office of Higher Education will begin to address this in its 2008 report.

Degree Production

Indicator 2A: How many degrees were awarded each year at all levels per 1,000 population age 20 and older?

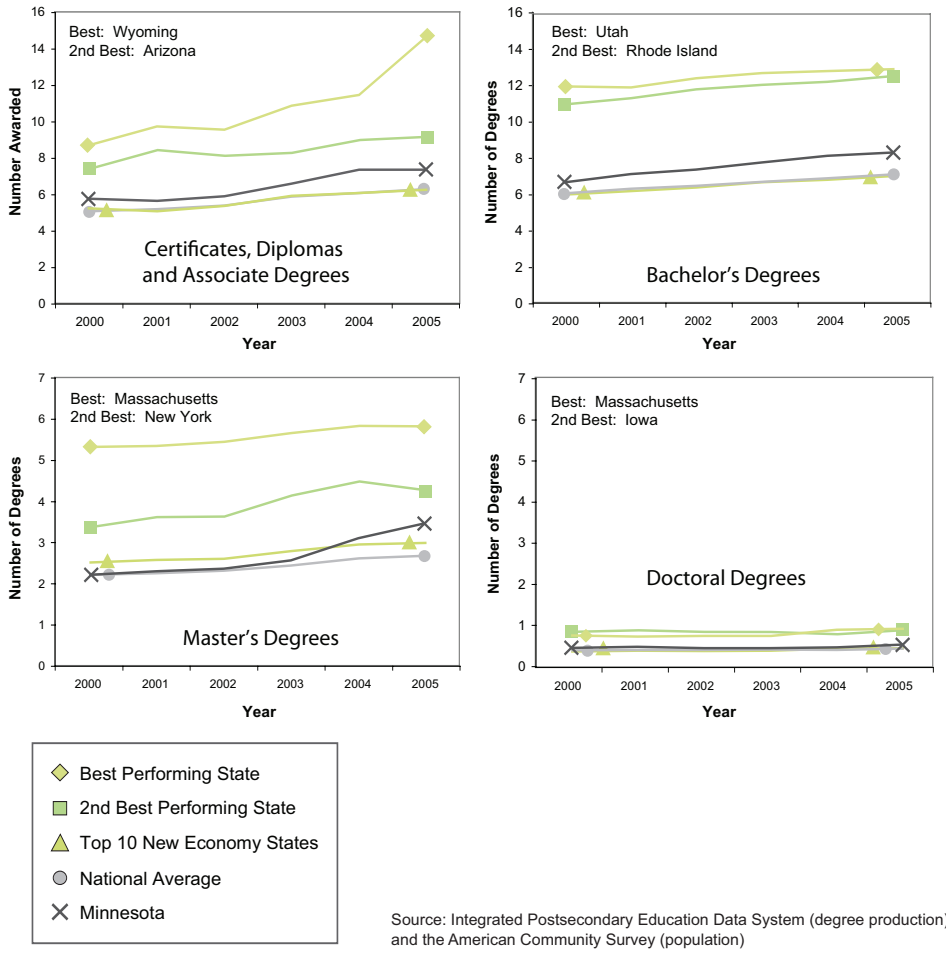
Adults with college degrees earn more money and contribute more to the economy that those without degrees.[13] As more and more jobs require postsecondary education and training, the proportion of people with degrees will need to increase to meet the demand.

In the five-year period from 2000 through 2005, the state of Minnesota's higher education sector increased the number of degrees produced per 1,000 adults for associate, baccalaureate and master's programs. Doctoral degree production remained nearly flat. For every degree type, Minnesota performed near the national average.

Data and methodology:

This measure is stated as a ratio of degrees produced at each level per 1,000 people in the state age 20 or older. An age of 20 was chosen because it is the standard earliest age at which an individual can earn a postsecondary credential.

Compare Minnesota: Degrees Awarded Per 1,000 People 20 and Older



Source: Integrated Postsecondary Education Data System (degree production) and the American Community Survey (population)

GOAL TWO

Degree Alignment

Indicator 2B: Of all degrees awarded, what percentage were awarded in science, technology, engineering and mathematics fields?

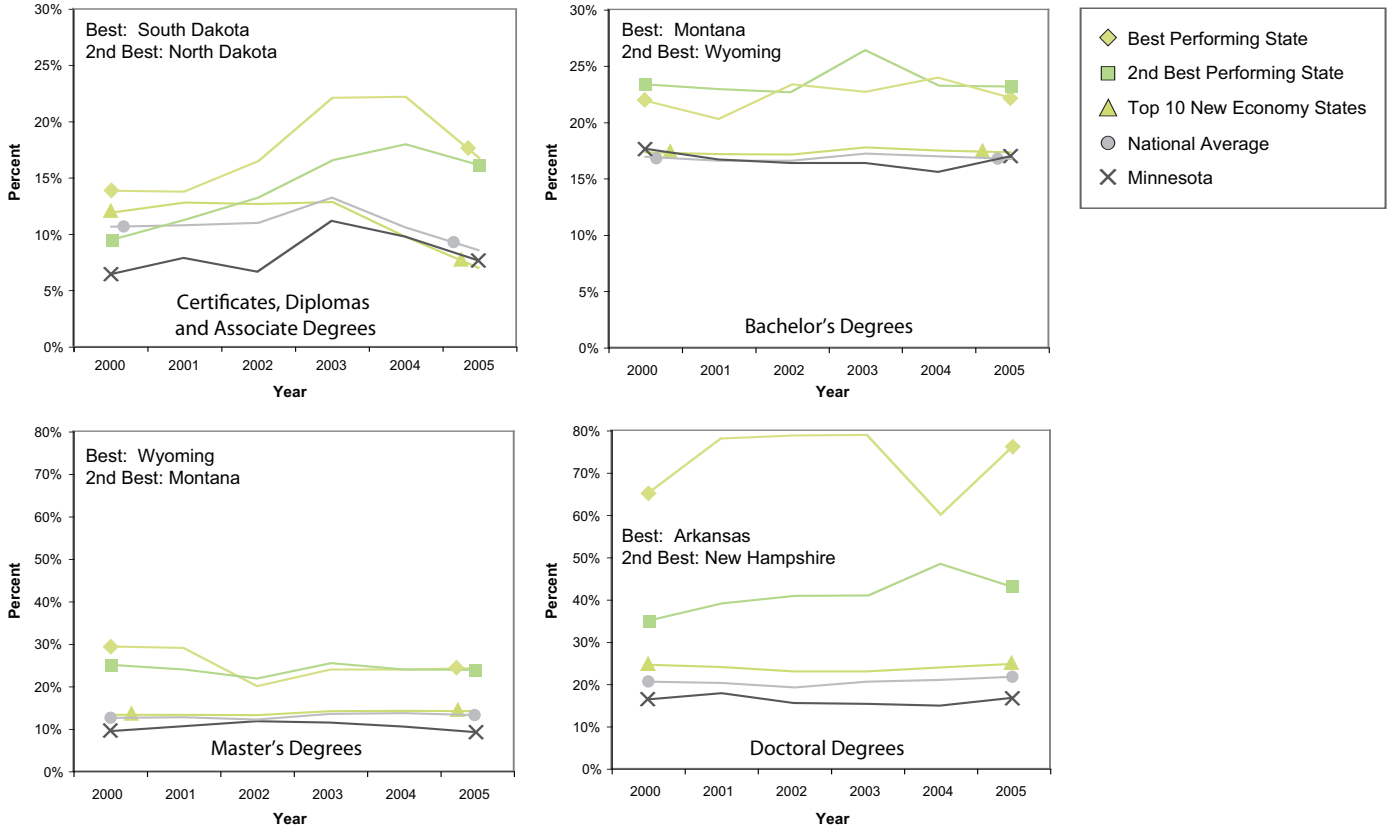
As noted in the terms and definitions section of this report, STEM fields include agriculture, computer science, engineering, engineering technology, mathematics, environmental science, biological sciences, and physical sciences (chemistry and physics).

Degrees in science, technology, engineering and mathematics are considered valuable in the new economy. The proportion of STEM degrees produced as a share of all degrees is a straightforward measure of direct contributions of higher education to the Minnesota economy. Migration of adults with degrees in these areas will have an impact on Minnesota's economy as well.

Minnesota institutions do not excel in awarding STEM-related degrees at any level. At the baccalaureate and graduate levels, pursuit of degrees in STEM disciplines has remained flat since 2000.

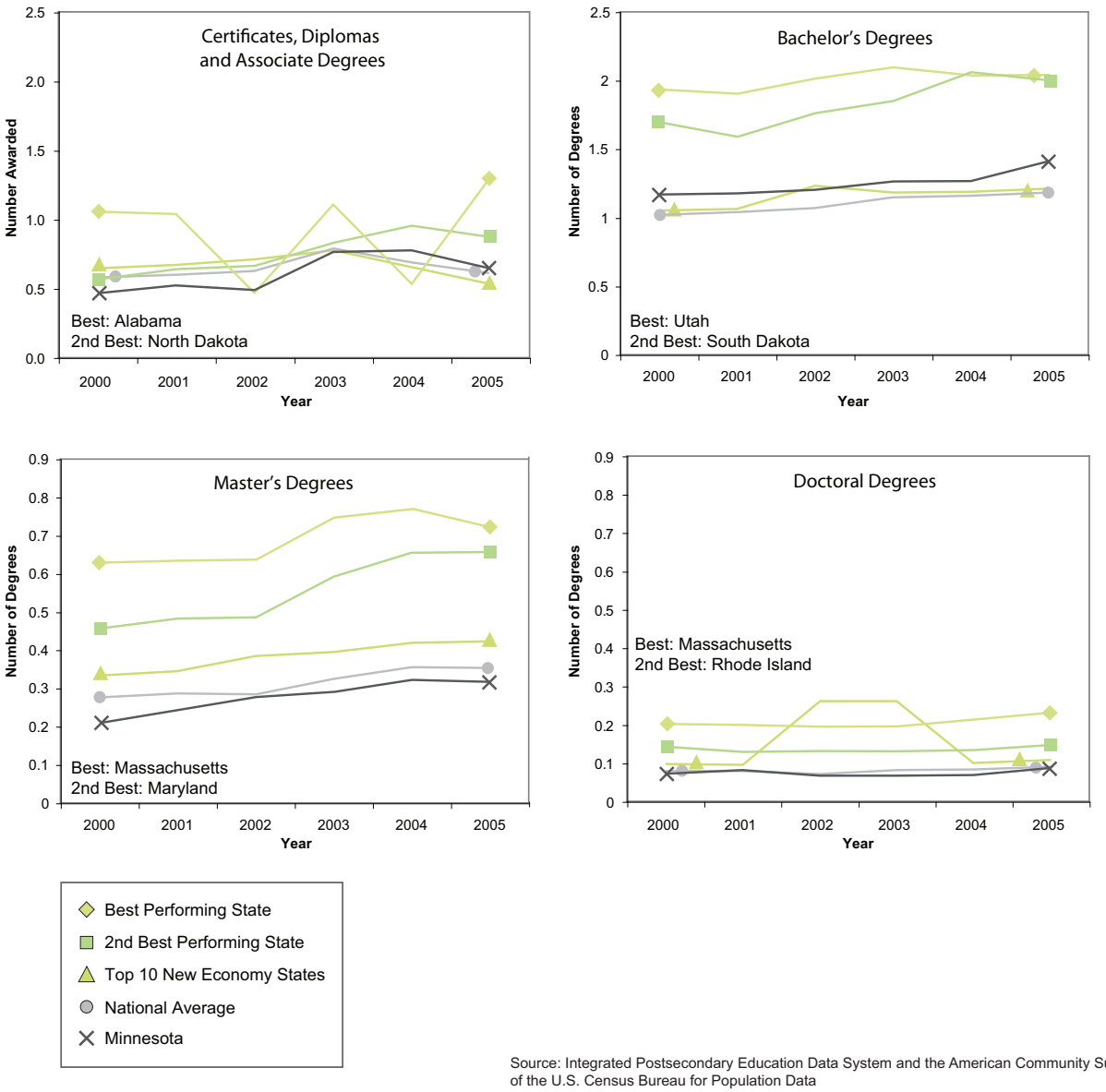
"At the baccalaureate and graduate levels, pursuit of degrees in STEM disciplines has remained flat since 2000."

Awards in Science, Technology, Engineering and Mathematics, as a Proportion of All Degrees



Source: Integrated Postsecondary Education Data System

Awards per Capita, STEM Fields (Per 1,000 Population)



Source: Integrated Postsecondary Education Data System and the American Community Survey of the U.S. Census Bureau for Population Data

Degree Alignment

Indicator 2C: Of all degrees awarded at each level, what percentage were produced in health care and related fields?

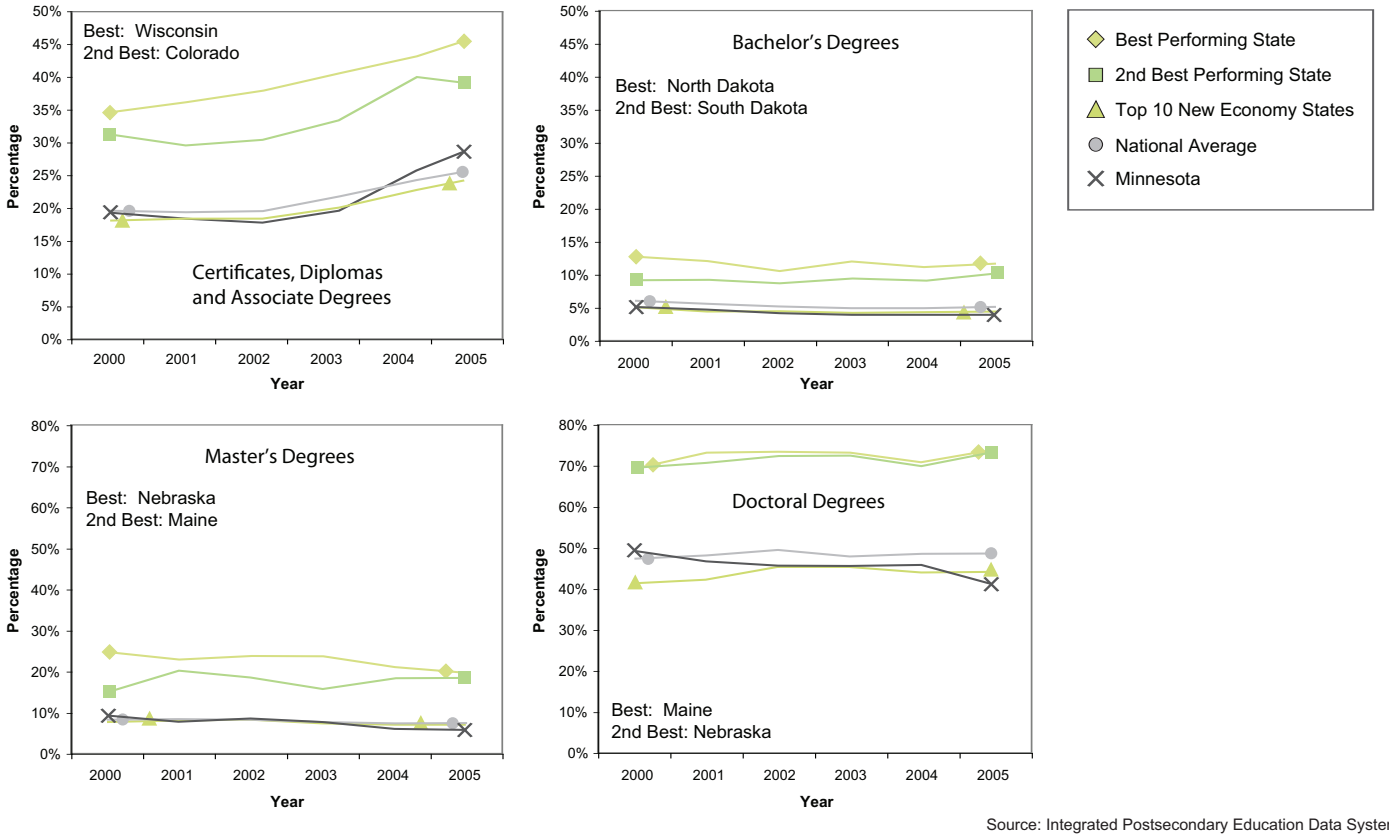
As the population of the state ages, the need for qualified workers in health fields is expected to continue to increase. Degrees in health fields are considered valuable to the growth of the economy. The proportion of degrees awarded is a straightforward measure of the state's continued success in this area.

Among states, Minnesota was not a strong producer of graduates in health care. Among all levels of programs, Minnesota produced associate degree graduates in health care programs at a rate slightly higher than the national average. Given the projections for this field, the state may need to increase its capacity.

The migration of adult degree holders in these areas will have an impact on Minnesota's economy as well.

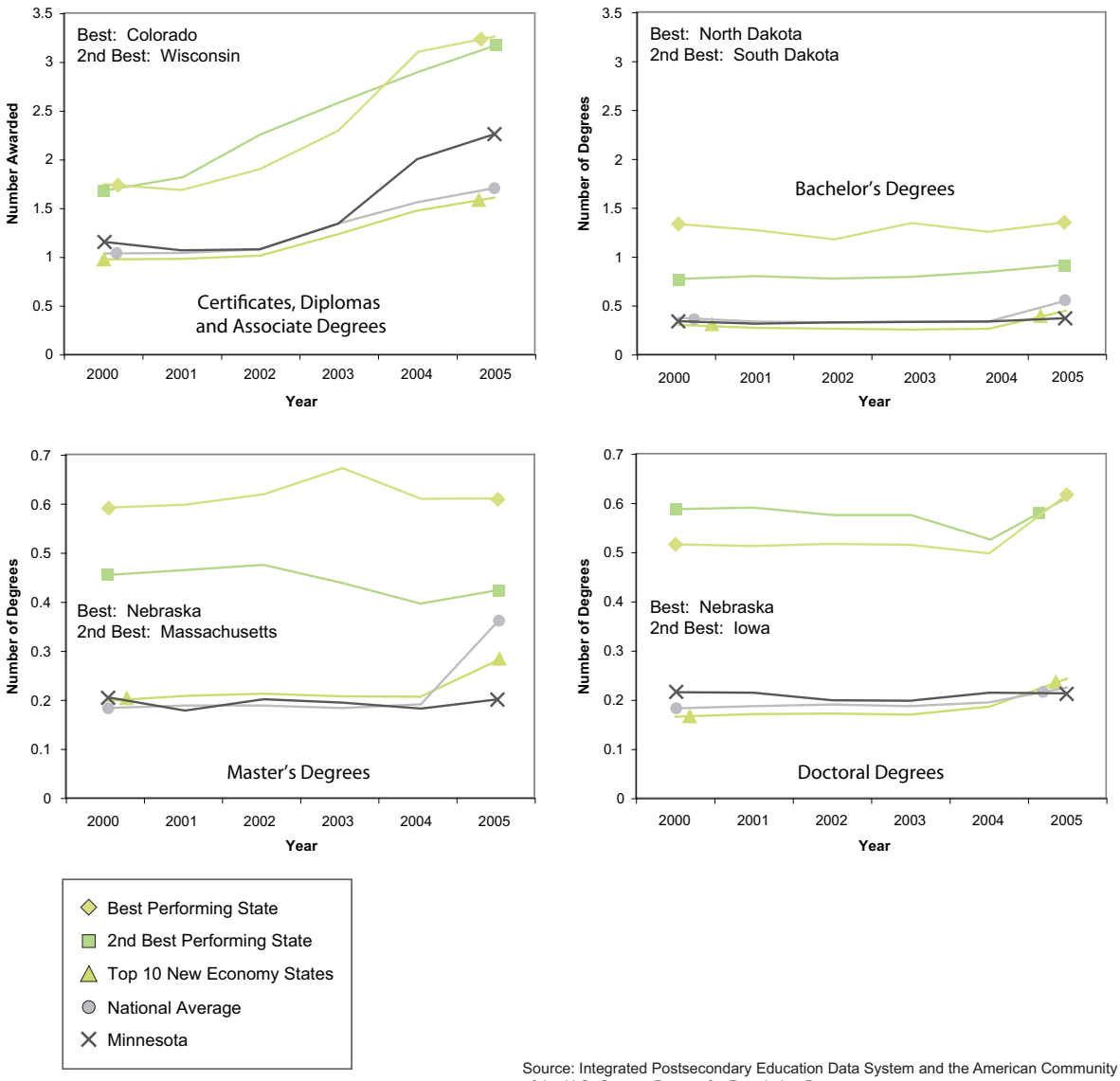
"Among states, Minnesota was not a strong producer of graduates in health care."

Awards in Health Fields, as a Proportion of All Degrees



Source: Integrated Postsecondary Education Data System

Awards per Capita, Health Fields (Per 1,000 Population)



Source: Integrated Postsecondary Education Data System and the American Community Survey of the U.S. Census Bureau for Population Data

3

Increase student learning and improve skill levels of students so they can compete effectively in the global marketplace.

Learning Outcomes

There were no indicators for this goal because statewide or nationally comparable indicators on student learning do not currently exist.

In its report to the Minnesota Office of Higher Education, the National Center for Higher Education Management Systems recommended that Minnesota include a goal on student learning. The center also acknowledged that few consistent measures of student learning are in place for higher education. Assessing learning in postsecondary education is more complex than in K–12 due to different levels of college preparation by incoming students and varying student goals.

Many institutions and systems in Minnesota have begun to explore ways to assess and demonstrate student learning in higher education.

Effective teaching and learning is central to all levels of education. In its report to the U.S. Secretary of Education in 2006, the National Commission on the Future of Higher Education recommended that postsecondary institutions measure and report learning outcomes. Learning outcomes were a central focus of that report.[14] Regional accrediting bodies such as the North Central Association have called for more learning assessments to be part of the self-study executed by institutions.

The Minnesota Office of Higher Education will explore this issue with public and private institutions in the coming year, looking at the recommendations of the national commission, and reviewing proposed assessments of adult literacy, licensure, graduate and professional school exams and specially administered tests of general intellectual skills. Value-added measurements indicating how students progress over time will be considered.

4

Contribute to the development of a state economy that is competitive in the global market through research, workforce training and other appropriate means.

A strong academic research component is beneficial to institutions, students and the state's economy. The University of Minnesota-Twin Cities leads academic research for the state with a well-established research mission. While other four-year institutions engage faculty and students in limited academic and applied research, the University of Minnesota is clearly the lead research institution. Through research, the University engages its faculty in their respective disciplines, attracts research dollars to the state, provides enrichment opportunities for students and a format for innovation and invention leading to a positive economic impact for the state.

Minnesota ranks within the top third nationally in terms of the total share of federally-funded academic research. The University of Minnesota and the state have a vested interest in seeing the state's rank and reputation improve in this area. The University of Minnesota's strategic plan adopted in 2006 establishes research as a priority.

In its proposal to the Office of Higher Education, the National Center for Higher Education Management Systems included in this goal measures of workforce training. However, meaningful and comparable data relative to workforce training is less available than anticipated. Workforce training is identified as an item for study and development in the 2008 report. NCHEMS also proposed numerous background indicators under this goal that together would create a picture of the quality of life and socio-economic status of the state's citizens. These indicators were removed since it was not clear how higher education can be held directly accountable on measures such as infant mortality rates, voter participation and charitable giving.

Research and Discovery

Indicator 4A: What was Minnesota's relative position in its national share of academic research?

This indicator recognizes the contribution of academic research to the competitive position of Minnesota in the global economy. The business sector produces a substantial amount of research to develop new products and processes. However, higher education institutions, such as the University of Minnesota and related non-profit organizations including the Mayo Clinic, contribute in unique ways that should be separately measured.

The federal government, through agencies such as the National Science Foundation, the National Institutes of Health and the U.S. Department of Defense, provides billions of dollars annually for research. Much of this money is spent on university campuses. These research funds have two significant impacts on the economy of the state. First, the spending provides jobs and income directly through the research process and less directly as the money moves through the economy. Second, and more importantly, this research can lead to new products, techniques and services that can create new industries.

Minnesota ranked eighteenth in its share of national academic research dollars, which can translate into research activity. Minnesota's share of 1.8 percent was well below the two top states, California and New York, both of which are significantly larger than Minnesota and are home to numerous research institutions. The average for the Top 10 New Economy States also exceeded the Minnesota figure by a significant amount, in large part because California and New York are part of the New Economy group of states.

Compare Minnesota: Academic Research Share and Rank

	1999	2000	2001	2002	2003
Minnesota					
Percent Share	1.7%	1.8%	1.8%	1.9%	1.8%
National Rank	18	19	18	17	18
Top states' share					
California	13.4%	13.3%	13.1%	13.3%	13.4%
New York	8.1%	8.0%	7.9%	8.1%	8.1%
Top 10 New Economy States	4.3%	4.3%	4.2%	4.%	4.3%

Source: National Science Foundation, Division of Science Resources Statistics, Academic Research and Development Expenditures, Fiscal Year 2004 NSF 06-323

While Minnesota cannot expect to reach the research activity levels of California or New York due to its size, the percent share of total research over time provides a good indication of the state's position and direction. Slight changes in the share of research dollars can make a big difference to a state. For example, an increase of one percentage point in the share would bring in another $300 million to the state. The competitive nature of winning sponsored research funds makes this a difficult task. There may be policies that could help Minnesota increase its share of the funding.

Data and methodology:

The measure included all institutions of higher education and the Mayo Clinic. Minnesota's data are dominated by the University of Minnesota since few other universities in Minnesota obtain significant funds for sponsored research. The source of the data is the National Science Foundation, the federal agency given the responsibility by Congress to monitor research and development activity in all economic sectors in the country. This indicator included research funded by the federal government, business and industries and non-profit foundations. It excluded research funded by states or institutions.

Research and Discovery

Indicator 4B: How does the University of Minnesota compare to other flagship research institutions?

The competition for sponsored research dollars among institutions with similar scope and mission around the country and the world is intense. A publicly established goal of the Board of Regents of the University of Minnesota is to be among the top three public research universities in the world.

The University of Florida's annual report on America's top research universities first defines the field of top research universities as those receiving more than $20 million in annual federal research dollars and ranking within the top 25 on at least one of the nine measures listed below.

- Research dollars
- Federal research dollars
- Size of endowments
- Annual giving to the institution
- Membership to the National Academies
- Number of faculty awards
- Number of doctorates granted
- Number of post doctorates appointed
- The average SAT scores of entering freshmen

Seventy institutions met the criteria and were included in the ranking of top research institutions in the country.[15] (The Center's online resource provides comprehensive data on more than 600 institutions.)

From there, researchers ranked institutions based on how many times the institution ranked among the top 25 percent on these measures. The top institutions earned nine points. This approach led to a group ranking based on the total top 25 finishes, not an individual rank for each institution.

The University of Minnesota ranked among the top 17 research universities in the country. The three measures where the University of Minnesota did not score in the top 25 percent were the two faculty measures and student SAT scores.

Ranking of Top Public and Private U.S. Research Universities 2005

Sector	Institution	# of Top 25 Rankings
Private	Massachusetts Institute of Technology	9
Private	Stanford University	9
Private	University of Pennsylvania	9
Private	Columbia University	8
Private	Harvard University	8
Private	Johns Hopkins University	8
Private	Duke University	8
Public	University of California – Berkeley	8
Public	University of Michigan - Ann Arbor	8
Private	Yale University	7
Public	University of Washington – Seattle	7
Private	Washington University in St. Louis	7
Public	University of California - Los Angeles	7
Private	University of Southern California	7
Public	University of Minnesota - Twin Cities	6
Public	University of Wisconsin – Madison	6
Public	University of California - San Francisco	6

Source: University of Florida Report, America's Research Universities

The University of Florida's analysis evaluated institutions within the United States and did not establish international comparisons. Other organizations rank higher education institutions on an international basis. Because the methodologies of these other rankings have not been completely investigated, they are not fully presented in this report.

Comparison to other countries is important given the aspirations of the University of Minnesota leadership to improve the University's standing and reputation on research and discovery internationally.

Other reports:

- Institute of Higher Education, Shanghai Jiao Tong University in China ranked the University of Minnesota 32nd internationally among the top 100 research institutions.
- A re-analysis of the Shanghai ranking using different criteria performed by the Institute Jozef Stefan, Ljubljana, Slovenia ranked the University of Minnesota 33rd internationally.
- *London Times Higher Education Supplement* ranked the University of Minnesota 187th out of 200 internationally, and
- *Newsweek* ranked the University of Minnesota 30th internationally.

Research and Discovery

Indicator 4C: What were the total expenditures on research and development as a proportion of gross state product?

While the previous indicator measured academic research dollars, this indicator measures total expenditures on research in the state from all sources, including business. Total research expenditures for the state are larger, by a factor of 10, than spending on academic research alone. This gauge provides a context for the academic research measure. Research in business and industry is more closely aligned with finished products produced by corporations. But many of these products may have their roots in basic research performed at an earlier stage at a university. Total academic research spending in 2003 in Minnesota was $548 million. Total research spending from all sources was $5.8 billion.

Research as a share of output in Minnesota has grown between 1999 and 2003, although not as strongly as New Mexico and Massachusetts. There has been a significant increase in business spending as well. Yet Minnesota was still well below the average for the Top 10 New Economy States. As the experience in Massachusetts indicates, this ratio can grow significantly over a short period of time. Minnesota's rank has also improved from 1999 to 2003. This is due in part to increases in academic research both at the University of Minnesota and the Mayo Clinic.

This indicator can be distorted by facts of history that have nothing to do with the strength or growth of a state's economy. For example, New Mexico has the highest share of gross state product both because its economy is small and two large federal laboratories are located there.

Data and methodology:

As with Indicator 4A, the data are from the National Science Foundation. In order to scale the measure across states, the indicator was based on gross state product. Without this scaling, states such as California and New York would easily dominate this measure.[16]

Compare Minnesota: Research Expenditures as a Proportion of Gross State Product

	1999	2000	2001	2002	2003
Minnesota	2.3%	2.3%	2.6%	2.6%	2.8%
Rank	19	17	16	14	15
Top 10 New Economy States	3.4%	3.5%	3.5%	3.4%	3.6%
National Average	2.7%	2.7%	2.7%	2.5%	2.6%
Best State (NM)	6.7%	6.1%	7.7%	8.9%	8.7%
Second-best State (MA)	4.8%	4.7%	5.2%	5.0%	5.3%

Source: National Science Foundation

5 Provide access, affordability and choice for all students.

Choice and access abound in Minnesota. With more than 150 postsecondary institutions in the state offering a wide variety of programs at all levels, students have many choices. A range of admissions policies and the availability of online courses from both public and private institutions further enhance access and opportunity.

Choice and access are limited by two factors: academic preparation and affordability. Academic preparation – or college readiness – as outlined in the introduction of this report is an issue of growing concern. Lack of academic preparation rivals affordability as a barrier to college access.

While some institutions are responding to student needs with remedial and developmental courses for under-prepared students, this is not the most viable long-term solution or the best use of state resources. Today public systems and private college associations have been increasingly engaged in public policy work to improve high school rigor and college readiness.

College affordability is a complex issue for which there is no single perfect measure and comparisons nationally and internationally are difficult. Affordability is a function of college prices, the student's college and program choice, family and student income, assets and financial aid. This goal included student enrollment as a proxy for access and illustrates the changing financial expectations placed on students and their families. Limited trend data on net prices and student borrowing point to fewer affordable options for students at a time when attaining some form of higher education is critical for success in life and work.

Future study on institutional aid and relative price and affordability across states and nations will be pursued in the 2008 report.

Access

Indicator 5A: What percent of Minnesota residents, age 18 to 24, were enrolled in postsecondary education?

One way to measure access and affordability is to consider the extent to which individuals are taking advantage of higher education opportunities. This measure provides one view of college participation for traditional-age college students. The state's performance on this measure will never be 100 percent because there are reasons why individuals would choose to not enroll in college. However, this measure is instructive for purposes of comparison to other states and countries. This is the most comprehensive measure of postsecondary participation available for which there are international benchmarks.

Minnesotans of traditional college age were enrolled in college at about the same rate as the rest of the country at 34.1 percent. Some states had a significantly higher proportion of young people enrolled in college. As higher education becomes more important for individuals seeking well-paying jobs that offer potential for advancement, increasing the share of traditional-age young people who are enrolled in college becomes both an economic and social imperative.

Compare Minnesota: Proportion of 18- to 24-year olds Participating in Postsecondary Education – 2004

	18–24
Minnesota	34.1%
Best State (RI)	40.3%
Second-best State (ND)	40.0%
Top 10 New Economy States	37.4%
National Average	34.3%

Data source: American Community Survey.

"Minnesotans of traditional college age were enrolled in college at about the same rate as the rest of the country."

Compare Minnesota: Proportion of 18- to 24-year-olds Participating in Postsecondary Education

Top Performing Countries	2002	2003
Republic of Korea	47.6%	48.3%
Greece	37.2%	40.3%
Belgium	32.9%	33.1%
Spain	31.3%	30.3%
Finland	29.8%	31.2%
U.S. Data		
Minnesota	30.8%	33.4%
Top 10 New Economy States	36.2%	37.2%
National Average	33.0%	33.5%

Data source: Organization for Economic Cooperation and Development (international data), American Community Survey (U.S. data)

Note: The chart at the top is from 2004 and the international chart shows data for 2003, the most recent year for which international data is available.

Access

Indicator 5B: What percent of adults age 25-44 were enrolled in postsecondary education?

More and more working adults are finding value in returning to college to complete or supplement their education. This indicator considers the extent to which adults took advantage of higher education opportunities, which can be a reflection of several conditions, including access. The true value of this indicator is in its trend direction and in comparisons to other states.

This measure offers one way of looking at college engagement and access among working adults. Minnesota had 12.3 percent of its adults 25 to 34 enrolled in college, which was just slightly above the national average. Among a broader age category of 25 to 44-year-old adults, 8.2 percent were enrolled.

Compare Minnesota: Proportion of Working-Age People Participating in Postsecondary Education 2004

	Age 25–34	Age 25–44
Minnesota	12.3%	8.2%
Top 10 New Economy States	12.4%	8.7%
National Average	11.8%	8.3%
Best State (NM)		12.4%
Second-best State (UT)		11.2%

Source: American Community Survey

Participating in postsecondary education after age 25 is typically an indicator of one of four things:

- An individual has only a high school education and is choosing to pursue or complete a certificate, diploma, or degree;
- An individual has decided to change careers and is going back to school for training;
- An individual has decided to pursue graduate level work; or
- Workforce training.

Approximately seven percent of all adults 25- to 44-years old enrolled in college in Minnesota had only a high school diploma. This means the majority of the people in this group were pursuing additional training beyond their original college degree, completing a second undergraduate degree or pursuing graduate school.

Net Prices

Indicator 5C: What were Minnesota families expected to pay for higher education as a percent of their income?

An important aspect of affordability for lower- and middle-income families is the amount they are expected to pay toward the education of their dependent children. One way to evaluate affordability across all institution types and income levels is to look at the relative price as a share of income.

Minnesota offers its residents attending Minnesota institutions a grant, based on financial need. As part of the calculation used in determining eligibility for Minnesota State Grant awards, the price of college attendance is assigned to three parties: the students, the family and the taxpayer. One way to assess the state's expectation of a family's contribution to the cost of higher education for their child is to connect the assigned family share under the State Grant program to a family's income. The table below shows the assigned family responsibility as determined in the program divided by adjusted gross income. This ratio is shown for the

Minnesota Detail: Assigned Family Expectation by the Three Lowest Income Groups 1986 to 2004

	Top Income	Private Four-Year Not-For-Profit	Private Two-Year For-Profit	University of Minnesota	MnSCU Four-Year	MnSCU Two-Year
Lowest 20 Percent Income						
1986	$14,000	0.0%	0.0%	0.0%	0.0%	0.0%
1989	16,003	0.0%	0.0%	0.0%	0.0%	0.0%
1992	16,713	0.0%	0.0%	0.0%	0.0%	0.0%
1995	19,070	0.0%	0.0%	0.0%	0.0%	0.0%
1998	21,600	1.5%	1.5%	1.5%	1.5%	1.5%
2001	24,000	1.5%	1.5%	1.5%	1.5%	1.5%
2004	24,780	1.1%	1.1%	1.1%	1.1%	1.1%
Second Lowest Percent Income						
1986	$24,100	3.8%	3.8%	3.8%	3.8%	3.8%
1989	28,000	3.3%	3.3%	3.3%	3.3%	3.3%
1992	29,674	3.0%	3.0%	3.0%	3.0%	3.0%
1995	32,985	4.0%	4.0%	4.0%	4.0%	4.0%
1998	37,692	4.7%	4.7%	4.7%	4.7%	4.7%
2001	41,127	5.8%	5.8%	5.8%	5.8%	5.8%
2004	43,400	6.0%	6.0%	6.0%	6.0%	6.0%
Middle Income Group						
1986	$35,120	8.4%	7.6%	5.9%	5.5%	5.0%
1989	40,800	7.1%	7.1%	6.1%	5.2%	4.8%
1992	44,000	6.0%	6.0%	6.0%	6.0%	6.0%
1995	48,985	6.9%	6.9%	6.9%	6.6%	5.9%
1998	56,020	8.7%	8.7%	7.5%	6.1%	5.5%
2001	62,500	10.9%	9.8%	8.6%	7.2%	6.5%
2004	65,832	10.6%	9.3%	9.7%	7.6%	6.6%

Source: Minnesota Office of Higher Education

About the table: The table shows the effective assessment rate for the lowest three of five income categories (or quintiles), ranging from zero to $66,000. The assessment rate is determined by taking the expected contribution divided by adjusted gross income. The column labeled "top income" is the top income for that group for the year shown. For example, the top of the lowest group in 1986 was $14,000. This grew to $24,780 by 2004, but this still was defined as the lowest income group. The expected contribution rates are constant across sectors for the first two income groups but diverge for the middle group. The tuition and fee maximums set in state law were the cause of the divergence.

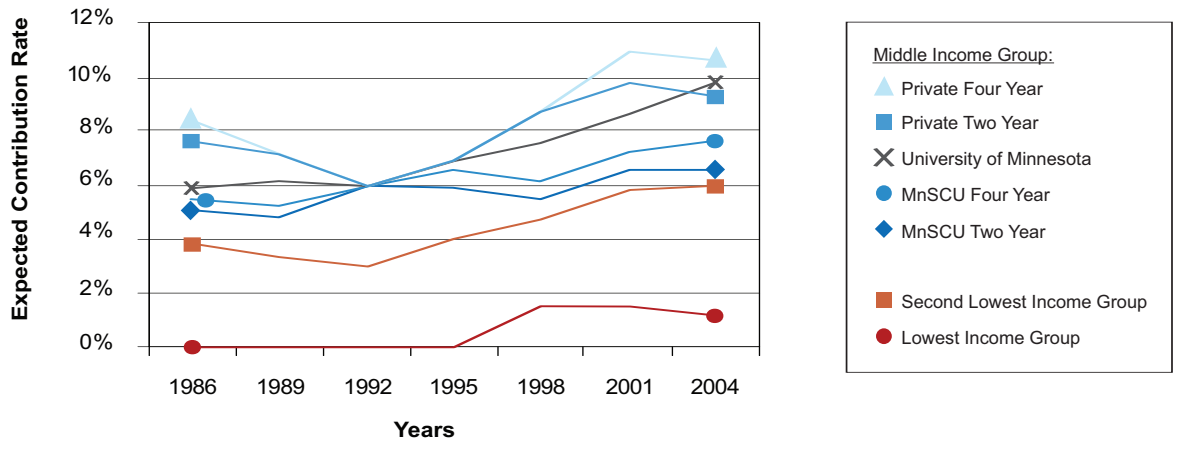
three lowest (of five) income groups (or quintiles). For instance, the top income of the families in the lowest 20 percent or quintile was $14,000 in 1986 and grew to $24,780 by 2004. The ratios in the columns under the institution types indicate the assigned family responsibility determined at these income levels divided by the income. For example, a family in the second-lowest income group with a student attending the University of Minnesota was expected to pay 3.8 percent of its income for college costs in 1986. This expectation grew to six percent by 2004.

In general, the share of family income expected to be applied toward the cost of higher education has increased since 1992 for Minnesota families in all three income groups shown. This means the effective cost of higher education has increased. For instance, for students in the second lowest income group who attend public two-year colleges, the rate increased from 3.8 percent to six percent. The state expected most of the gains in personal income to be used to pay for higher education.

The data reflect that, in calculating eligibility for financial aid, the state of Minnesota expects greater contribution from middle-income families as a share of income than from other income categories.

"This means the effective cost of higher education has increased."

Financial Expectations Placed on Families



Note: The contribution rates for each sector were the same for the first two lowest income groups. This changes for the middle income group.
Source: Office of Higher Education Research, State Grant Data Base

The chart above illustrates changes in expectations placed on families over time, among different income groups. It also shows the different financial expectations based on the type of institution chosen by students.

Affordability

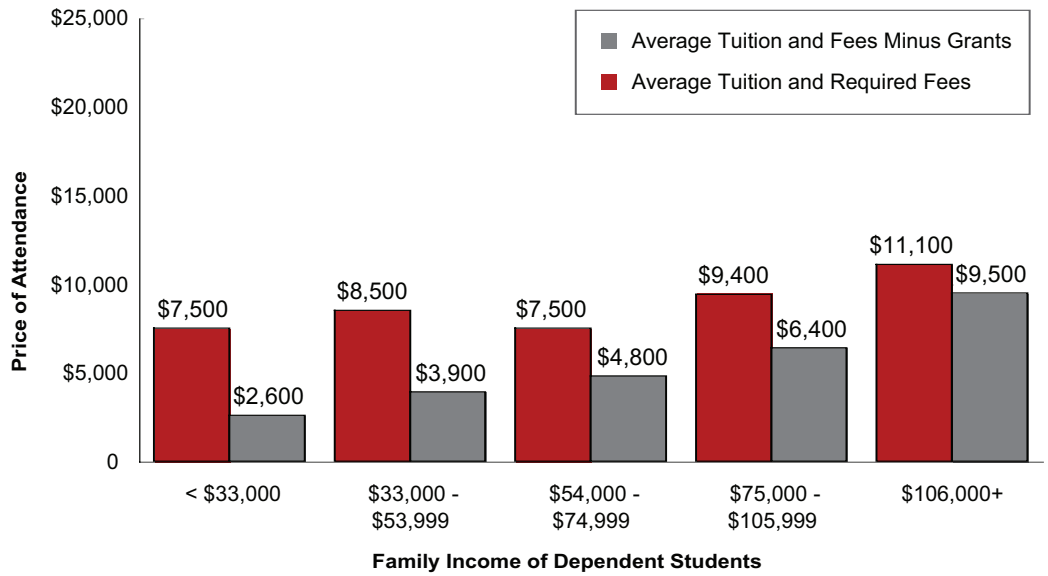
Indicator 5D: What were the net tuition and fee prices for students?

The price of attendance including tuition and fees at Minnesota institutions varied greatly for students after state grants, federal grants and institutional aid are subtracted. This measure shows aggregate direct costs for tuition and fees, minus grants.

Students in every income category received some grant aid; however, students in the two lowest income categories received the deepest discounts on tuition and fees. Minnesota's net tuition is lower than that of the Top 10 New Economy States. See current tuition and fee rates and rankings in Appendix C.

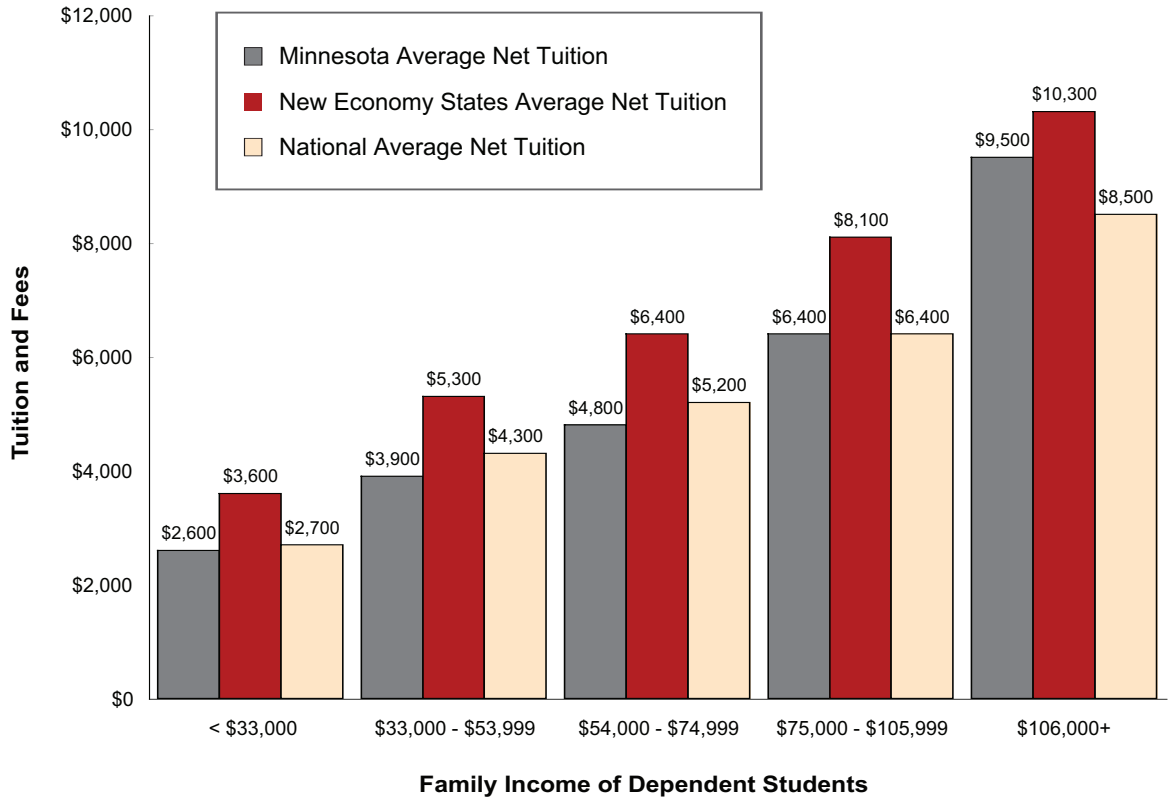
Students from families with incomes less than $33,000 faced average tuition and fees of $7,500. After subtracting all grants and scholarships, these students had a net tuition of $2,600, which is substantially less than the net tuition for students in the other quintiles. Students in the middle income quintile had nearly identical average tuition and fees of $7,500, but their net tuition was $4,800.

Tuition and Required Fees for Minnesota Undergraduate Dependent Students Attending Full Time by Income, 2003-04



Source: National Postsecondary Student Aid Study, conducted by the National Center for Education Statistics in the 2003-04 academic year.
Tuition and required fees reflect an average charged to all students in each income group. Income quintiles were derived from U.S. Census data for 2004.

Net Tuition and Fees in the U.S., Minnesota and New Economy States for Undergraduate Dependent Students Attending Full Time by Income, 2003-04



Source: National Postsecondary Student Aid Study

Data and methodology:

The price of attendance is an average for all students attending any public or private not-for-profit college or university by income category (including those who received grant or scholarship aid as well as those who did not). The price is for students who are dependent on their parents financially and who attended full time for the full academic year. This chart does not include living and miscellaneous expenses beyond tuition and fees. Current tuition data is available in Appendix C. This is the most recent data that combines net price with income.

Affordability

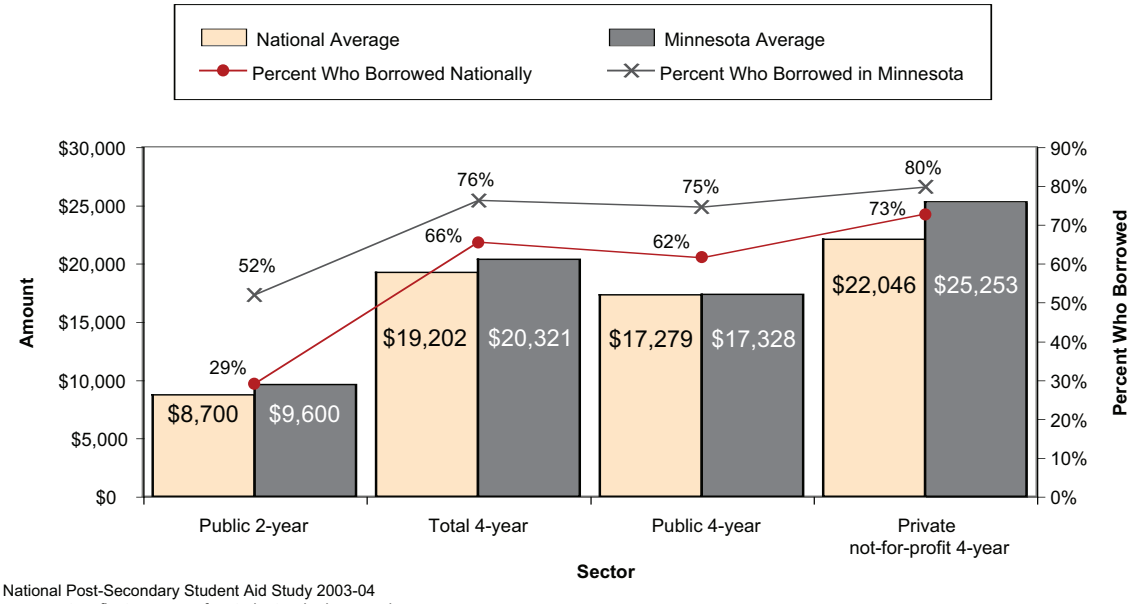
Indicator 5E: To what extent were Minnesota students borrowing to finance their education?

The educational debt of college graduates is a cause for growing concern. As the price of attendance increases, student borrowing levels can provide one perspective on affordability. If students believe they are unable to complete a four-year college education without incurring significant debt, there are negative implications for the state and the economy. In addition, large debts may affect the career choices of some students.

The chart below shows that the average cumulative amount borrowed by graduating seniors at four-year colleges in the U.S. was $19,200. The average debt at graduation for students at two-year colleges was $8,700.

More Minnesota students are borrowing, and those who borrow, borrow greater amounts than the national average. Those attending private four-year institutions are borrowing larger amounts than students attending public institutions. Student borrowing trends have closely matched other consumer debt trends in Minnesota and the United States. Borrowing is higher in states with higher personal incomes, such as Minnesota, and tends to increase as interest rates decline. Even so, the increase in student borrowing could have long-term implications for student choices and behavior.

Cumulative Borrowing Patterns for the 2003-2004 Academic Year, by Sector



Source: National Post-Secondary Student Aid Study 2003-04
Borrowing amounts reflect averages for students who borrowed.

Next Steps

Minnesota Measures provides information on the performance and engagement of Minnesota's higher education sector as a whole. While the report provides a valuable new perspective, much work remains to be done before conclusions can be drawn in certain areas. In the process of developing this report, several issues were identified for further study that will provide a more complete and conclusive picture of Minnesota's progress on the five goals identified.

Following are items to be explored for the next report:

International comparisons:

Comparisons across countries were made where possible and appropriate throughout the report; however, such comparisons were often unattainable due to a lack of comparable data. At a time when Minnesota's economic and educational competitors are worldwide, such comparisons are central to the state's capacity to sharpen its strategic edge. Unfortunately, reasonable comparisons cannot be made easily or consistently across countries and diverse cultures. The Office of Higher Education will further develop its ability to compare Minnesota with countries that have similar characteristics.

Development of a core comparison group:

To provide an additional level of relevant comparison, the Office of Higher Education will develop a grouping of comparable states against which to measure Minnesota's higher education effectiveness.

Student learning assessment:

Although student learning was identified as an essential goal in Minnesota's accountability framework, currently there are few ways to broadly assess student learning across institutions, systems, states and nations. Discussions on the need for student learning outcomes are occurring nationally on this issue and Minnesota and the Office of Higher Education must be engaged.

Affordability:

Additional perspectives on price, financial aid and financial access will be considered.

The value of degree completion:

Viewpoints differ[17] on the economic return to students and the state from college attendance that does not lead to a degree, certificate or diploma.

Nationally accepted measures of retention and graduation rates were presented in this report to provide a perspective on productivity and effectiveness. However these measures do not fully recognize the growing number of non-traditional and part-time students who engage in coursework or job training without ever completing a degree. Methods of evaluating and identifying this activity will be considered.

Workforce development benchmarks:

While Minnesota's colleges and universities have increased their offerings dramatically in the area of workforce development and training, there is no recognized benchmark for presenting nationally-comparable data on the quality, alignment and scope of workforce training being performed by the higher education sector. This topic, and development of comparable measures will be explored further.

Job placement and employer satisfaction data:

Job placement and employer satisfaction is missing from this report because no measures were readily available. The Minnesota State Colleges and Universities and many individual institutions may collect this information; however, statewide measures may be needed.

The Office of Higher Education has begun work on these issues.

Endnotes

[1] See Appendix C, Description of the Process for developing Minnesota's first Higher Education Accountability Report

[2] *A Test of Leadership, Charting the Future of U.S. Higher Education*, A Report by the Commission on the Future of Higher Education, 2006, a bipartisan commission appointed by U.S. Secretary of Education, Margaret Spellings. www.ed.gov/about/bdscomm/list/hiedfuture/reports.html

[3] Ibid.

[4] Transforming Higher Education: National Imperative – State Responsibility, Recommendations of the National Council of State Legislatures Blue Ribbon Commission on Higher Education, p. 1

[5] See Appendices A and B.

[6] The 2006 ACT report for Minnesota correlates rigorous curriculum with higher ACT scores. Based on its national research, ACT has determined minimum scores needed in each subject area to have a 50 percent chance of obtaining a B or higher or about a 75 percent chance of obtaining a C or higher in corresponding credit-bearing college courses.

[7] Data was collected from the 2002 *Getting Prepared* report produced by the Minnesota State Colleges and Universities, Office of Research and Planning, in collaboration with the University of Minnesota. Specific student data is shared with school districts.

[8] *What Works in Student Retention*, ACT 2004, Appendix 1

[9] Ibid.

[10] The Minnesota Transfer Curriculum. More information at www.mntransfer.org/mntc/mntc.html

[11] National Center for Education Statistics. *The Road Less Traveled. Students who Enroll in Multiple Institutions.* 2005

[12] NASA Web site: www.nasa.gov/audience/foreducators/postsecondary/features/F_Corporate_Recruitment_Initiative.html; *Developing the STEM Education Pipeline*, ACT report, 2006

[13] U.S. Census Bureau, earnings and educational attainment.

[14] A Test of Leadership, Charting the Future of Higher Education, A report by the Commission on the Future of Higher Education, 2006. www.ed.gov/about/bdscomm/list/hiedfuture/reports.html

[15] The University of Florida's online Center of American Research University Data provides a comprehensive set of data on more than 600 institutions. thecenter.ufl.edu/research_data.html

[16] Like all scaling approaches, using Gross State Product presents problems. However given the important link between the level of research that occurs in a state and the size of the state economy, this measure puts the information in an appropriate context.

[17] *Learning and Earning in the Middle, Part I: National Studies of Pre-Baccalaureate Education,* Economics of Education Review. 21 (2002) 299-321, W. Norton Grubb. School of Education, University of California, Berkeley. www.elsevier.com/locate/econedurev/

Appendix A
Advisory Participants 2005–2006

Name	Institution/Organization
Rod Henry	Bemidji State University
Sonia Cordero	Chicano-Latino Affairs Council
Victoria Ford	Citizens League
Sean Kershaw	Citizens League
Roger Banks	Council on Black Minnesotans
Jeanne Herrmann	Globe College
Tim McDonald	Hamline University
Tom Kosel	Herzing College
Barb Sykora	House Higher Education Finance Committee
Michael Valleau	House Higher Education Finance Committee
Kathleen Novak	House Research
Valerie Halverson Pace	IBM Corporate Community Relations
Nancy Black	Inter Faculty Organization
Russ Stanton	Inter Faculty Organization
Cheryl Frank	Inver Hills Community College
Michele Ernst	ITT Technical Institute
Randy Morris	McGrann Shea Anderson Camival Straughn & Lamb
Larry Isaak	Midwestern Higher Education Compact
Charles Kyte	Minnesota Association of School Administrators
Jim Bartholomew	Minnesota Business Partnership
Charlie Weaver	Minnesota Business Partnership
Bill Blazar	Minnesota Chamber of Commerce
Stacia Smith	Minnesota Chamber of Commerce
Daniel Bittman	Minnesota Department of Education
Mary Ann Nelson	Minnesota Department of Education
Alice Seagren	Minnesota Department of Education
Cristine Leavitt	Minnesota Department of Employment and Economic Development
Libby Starling	Minnesota Department of Employment and Economic Development
Kyle Uphoff	Minnesota Department of Employment and Economic Development
Peter Lindstrom	Minnesota High Tech Association
Kate Rubin	Minnesota High Tech Association
Jennifer Godinez	Minnesota Minority Education Partnership, Inc.
Carlos Mariani-Rosa	Minnesota Minority Education Partnership, Inc.
Alexandra Djurovich	Minnesota Office of Higher Education
Ginny Dodds	Minnesota Office of Higher Education
Mary Lou Dresbach	Minnesota Office of Higher Education
Tim Geraghty	Minnesota Office of Higher Education
Tricia Grimes	Minnesota Office of Higher Education
Susan Heegaard	Minnesota Office of Higher Education
Emily Kissane	Minnesota Office of Higher Education
Cheryl Maplethorpe	Minnesota Office of Higher Education
Mark Misukanis	Minnesota Office of Higher Education
George Roedler	Minnesota Office of Higher Education
David B. Laird, Jr.	Minnesota Private College Council
Doug Shapiro	Minnesota Private College Council
Michael Wilhelmi	Minnesota Private College Council
Jeff Myhre	Minnesota School of Business
Sally Mickelson	Minnesota School of Business/Globe College
Tarryl Clark	Minnesota Senate Higher Education Budget Division
Amy Koch	Minnesota Senate Higher Education Budget Division
Sandra Pappas	Minnesota Senate Higher Education Budget Division
David Tomassoni	Minnesota Senate Higher Education Budget Division
Claire Robling	Minnesota Senate Higher Education Budget Division
Dennis Albrecht	Minnesota Senate Staff
Ed Cook	Minnesota Senate Staff
Maja Weidmann	Minnesota Senate Staff
Greg Mulcahy	Minnesota State College Faculty Association
Larry Oveson	Minnesota State College Faculty Association
Nicki Bottko	Minnesota State College Student Association
Patrick Christner	Minnesota State College Student Association
Candi Walz	Minnesota State College Student Association
Susan Anderson	Minnesota State Colleges and Universities
John Asmussen	Minnesota State Colleges and Universities
Kerry Fine	Minnesota State Colleges and Universities
Laura King	Minnesota State Colleges and Universities
James McCormick	Minnesota State Colleges and Universities
Leslie Mercer	Minnesota State Colleges and Universities
Anita Neumann	Minnesota State Colleges and Universities
Craig Schoenecker	Minnesota State Colleges and Universities
Kathleen Vellenga	Minnesota State Higher Education Services Council
Roland Barden	Minnesota State University Moorhead
J.J. Jouppi	Minnesota State University Student Association
Hal Kimball	Minnesota State University Student Association
Tom Holman	Morning Foundation
Peter Ewell	National Center for Higher Education Management Systems
Dennis Jones	National Center for Higher Education Management Systems
Aims McGuinness	National Center for Higher Education Management Systems
Pat Callan	National Center for Public Policy and Higher Education
Ray Anschel	Normandale Community College
Jenny Glumack	Office of the Governor
Don Sudor	Rochester community representative
Jeffrey Highland	St. Mary's University of Minnesota
Elona Street-Stewart	St. Paul Public Schools — Board of Education
Paul Lingenfelter	State Higher Education Executive Officers
Rich Howard	University of Minnesota
John Kellogg	University of Minnesota
Donna Peterson	University of Minnesota
Joe Shultz	University of Minnesota
Alfred Sullivan	University of Minnesota
Peter Zetterberg	University of Minnesota
John Ziegenhagen	University of Minnesota
Paul Anton	Wilder Research Center

Regional Meeting Attendees

Name	Institution/Organization
Kevin Kopischke	Alexandria Technical College
Aaron Benike	Alvin E. Benike, Inc.
Roger Giroux	Anoka-Hennepin Schools
Rick Thoni	Augsburg College
James Hess	Bemidji District
Jon Quistgaard	Bemidji Station University/Northwest Technical College
Dave Sunderman	Benco Electric
Ron Younge	Bethany Lutheran College
Wade Fauth	Blandin Foundation
Bruce Stender	Blandin Foundation
Michael Offerman	Capella University
Joseph Opatz	Central Lakes College
David Martin	Chamber of Commerce, Fargo/Moorhead
Janet Lestock	College of Business Graduate Programs, University of St. Thomas
Ann Marie Biermaier	College of St. Benedict/St. John's University
Cal Mosley	College of St. Catherine
Del Case	College of St. Scholastica
Brian Dalton	College of St. Scholastica
Patrick Flattery	College of St. Scholastica
Larry Goodwin	College of St. Scholastica
Steve Lyons	College of St. Scholastica
Pamela Jolicoeur	Concordia College, Moorhead
Jane Williams	Concordia College, Moorhead
Bill Luce	Crossroads College

Name	Institution/Organization
Ronald E. Thomas	Dakota County Technical College
Rex Hein	Duluth Public Schools
Rich Wagner	Dunwoody College of Technology
Larry Anderson	Fond du Lac Tribal and Community College
Brian Walters	Greater Fargo Moorhead Economic Development Corporation
Alison Good	Greater Rochester Area University Committee
Eric Eliason	Gustavus Adolphus College
Mariangela Maguire	Gustavus Adolphus College
James Peterson	Gustavus Adolphus College
Ronald Kraft	Hennepin Technical College, Brooklyn Park Campus
Thomas Kosel	Herzing College
Mike Flaten	Hibbing Community College
Ken Simberg	Hibbing Community College
Duane Northagen	Hibbing Economic Development
Cheryl Frank	Inver Hills Community College
Sandy Layman	Iron Range Resources
Mike Johnson	Itasca Community College
Barbara McDonald	Itasca Community College
Larry Young	Joint Economic Development Commission
Gary Kruchowski	Lake Superior College
Lisa Larson	Lake Superior College
May Golden	Marathon Multimedia
Tracy Veglahn	Marshall Area Chamber of Commerce
Jery Lobland	Mayo Clinic
Kathleen Meyerle	Mayo Clinic Legal Department
William Gullickson, Jr.	McLaughlin Gormley King Co.
Tina Royer	Mesabi Range Community College
Peter Bell	Metropolitan Council
Thomas Cook	Metropolitan State University
Harold Hamilton	Micro Control Company
Sharon Jensen	Minnesota Business Partnership
Stacia Smith	Minnesota Chamber of Commerce
Mary Ann Nelson	Minnesota Department of Education
Libby Starling	Minnesota Dept. of Employment & Economic Development
Rick Caligiuri	Minnesota Dept. of Employment & Economic Development
Heather Rand	Minnesota Dept. of Employment & Economic Development
Kate Rubin	Minnesota High Tech Association
Thomas Huntley	Minnesota House of Representatives
Tina Liebling	Minnesota House of Representatives
Frank Moe	Minnesota House of Representatives
Marty Seifert	Minnesota House of Representatives
Tony Sertich	Minnesota House of Representatives
Vicki Sandberg	Minnesota Mechanical Contractors Association
Carlos Mariani-Rosa	Minnesota Minority Education Partnership, Inc.
Michael Wilhelmi	Minnesota Private College Council
Jeanne Herrmann	Minnesota School of Business
Dennis Albrecht	Minnesota Senate Staff
James McCormick	Minnesota State Colleges and Universities
Craig Schoenecker	Minnesota State Colleges and Universities
Carrie Ruud	Minnesota State Senate
Roland Barden	Minnesota State University Moorhead
Richard Davenport	Minnesota State University, Mankato
Joan Roca	Minnesota State University, Mankato
Walter Wolff	Minnesota State University, Mankato
Wayne Pletcher	Minnesota Technology, Inc.
Ronald Wood	Minnesota West Community and Technical College
Robert Hoffman	MnSCU Board of Trustees
Mike Gramse	MRG Tool & Die
Brian Tohal	New Ulm Economic Evelopment
Ted Gillett	Nielson Foundation
Leo Christenson	Normandale Community College
Katherine Hiyane-Brown	Normandale Community College
Jon Marshall	Normandale Community College

Name	Institution/Organization
Joe Sertich	Northeast Higher Education District
Charles Giammona	Northwest Technical College
Amy Caucutt	Olmsted County Offices
Greg Lea	Pemstar, Inc.
Glen Cerny	Pioneer Public Television
Kevin Molloy	Radisson
Wayne Merrill	Rainy River Community College
Betty Strehlow	Ridgewater College, Willmar Campus
Kim Norton	Rochester
Don Sudor	Rochester
John Wade	Rochester Area Chamber of Commerce
Don Supalla	Rochester Community and Technical College
Jerry Williams	Rochester Public Schools
Tiffany Hansen	RSM McGladrey, Inc.
Cap O'Rourke	Senate Education Committee
Sandra Pappas	Senate Higher Education Budget Division
David Danahar	Southwest Minnesota State University
Jay Trusty	Southwest Regional Development Commission
Tom Moore	St. Cloud Area Economic Development Partners
Sharon Cogdill	St. Cloud State University
David DeGroote	St. Cloud State University
Christine Imbra	St. Cloud State University
Bernie Oman	St. Cloud State University
Michael Pesch	St. Cloud State University
Mitchell Rubinstein	St. Cloud State University
Michael Spitzer	St. Cloud State University
Carolyn Ruth Williams	St. Cloud State University
Jonathan Parker	St. Cloud Technical College
Connie Christenson	St. Louis County Community Development Authority
Steve Raukar	St. Louis County Courthouse
Josh Breyfogle	Student Advisory Committee
Tom Klas	Tapemark Company
Gordon Crow	The Schwan Food Company
David Paskach	The Schwan Food Company
Laurie Johnson	University of Minnesota
John Ziegenhagen	University of Minnesota
Jim Clausen	University of Minnesota Institute of Technology Alumni Society
Paul Deputy	University of Minnesota, Duluth
Greg Fox	University of Minnesota, Duluth
Linda Krug	University of Minnesota, Duluth
Robert Krumwiede	University of Minnesota, Duluth
Vince Magnuson	University of Minnesota, Duluth
Jim Riehl	University of Minnesota, Duluth
Richard Ziegler	University of Minnesota, Duluth
David Carl	University of Minnesota, Rochester
Sue Collins	Vermilion Community College
Dennis Siemer	V-Tek Incorporated
Christine J. Barajas	Winona State University – Rochester Center
Tené Wells	Woman Venture

Appendix B
The Process

May 2005: The Minnesota Legislature and Governor Pawlenty charged the Office of Higher Education with developing a performance accountability report for higher education.

August 2005: The Minnesota Office of Higher Education contracted with the National Center for Higher Education Management Systems (www.nchems.org) to aid the agency in developing appropriate state goals and indicators for Minnesota.

August 2005: The Office of Higher Education convened a group of educators, policy-makers, employers and higher education administrators to hear about accountability programs in other states and review available data about Minnesota's relative strengths and weaknesses.

November 2005: The agency convened the statewide group of stakeholders again to begin discussing goals and indicators for Minnesota.

January 2006: The agency and the National Center for Higher Education Management Systems convened 20 separate meetings across the state with employers and educators to discuss and gather input on regional concerns and higher education needs. Participants included employers, educators and college leaders from across Minnesota.

March 2006: The agency convened the statewide group of stakeholders again to review proposed goals and indicators.

June 2006: NCHEMS delivered its final report of recommendations for development of a higher education accountability system in Minnesota to the Office of Higher Education.

September 2006: The Office of Higher Education met with the University of Minnesota, the Minnesota State Colleges and Universities and the Minnesota Private College Council individually to review specific concerns relating to the recommended indicators.

February 2007: The Office of Higher Education produced the first higher education accountability report.

Appendix C
Tuition Rates

Compare Minnesota: Full-Year Tuition and Fees for a Full-Time Student 2005-2006

										Minnesota Data		
Institution Type	Lowest Tuition		2nd Lowest Tuition		Highest Tuition		2nd Highest Tuition		National Average	Tuition	Rank***	Out Of
Flagship institution*	$2,874	WY	$3,094	FL	$11,508	PA	$10,748	VT	$6,135	$8,622	8th	50
Public Four-year**	$2,028	HI	$2,284	NV	$8,818	PA	$8,518	NJ	$4,843	$6,550	7th	50
Private Four-year, not-for-profit	$8,490	HI	$8,569	ND	$24,133	MA	$22,353	RI	$16,643	$18,704	10th	49
Public Two-year	$726	CA	$1,037	LA	$5,689	NH	$5,505	PA	$2,721	$4,061	7th	50
Private Four-year, for-profit	$9,450	WY	$9,810	SD	$16,733	UT	$16,567	AZ	$13,034	$13,994	14th	43
Private Two-year, for-profit	$7,452	KS	$8,251	IA	$31,540	AR	$17,889	MA	$11,976	$17,458	3rd	43

* As reported by individual states to the Washington Higher Education Coordinating Board for the 2005-2006 academic year.

**This is the average of all public four-year institutions in each of the states, excluding the flagship institutions. For Minnesota, the average tuition at the seven state universities was $5,596; for the three remaining University of Minnesota campuses it was $8,777, yielding an overall average of $6,550.

***Rankings are based on the tuition being sorted in descending (highest to lowest) order; thus Minnesota has among the highest tuition rates in the country for most institution types.

Data source: Integrated Postsecondary Enrollment Data System, 2005-2006 academic year

Appendix D
Rankings

Postsecondary Enrollment Indicators by Age Group

Indicator	Minnesota Rank 2004
Proportion of 18-24 year-olds enrolled in postsecondary education	18th
Proportion of 25-34 year-olds enrolled in postsecondary education	19th
Proportion of 25-34 year-olds holding a postsecondary credential	2nd
Proportion of 25-34 year-olds with Bachelor's Degree or better	8th
Proportion of 25-44 year-olds Enrolled in postsecondary education	23rd

Source: American Community Survey

Appendix D Continued
Rankings

Degrees Earned per 1,000 People

Indicator	Minnesota Rank	
	2004	2005
Certificates, diplomas, and associate's degrees earned	10th	11th
Bachelor's degrees earned	16th	16th
Master's degrees earned	10th	7th
Doctoral degrees earned	6th	8th
Total degrees earned	9th	7th
Certificates, diplomas, and associate degrees in health fields earned	8th	7th
Bachelor's degrees in health fields earned	28th	17th
Master's degrees in health fields earned	11th	13th
Doctoral degrees in health fields earned	15th	13th
Total degrees earned in health fields	13th	8th
Certificates, diplomas, and associate degrees in STEM fields earned	7th	21st
Bachelor's degrees in STEM fields earned	18th	15th
Master's degrees in STEM fields earned	17th	17th
Doctoral degrees in STEM fields earned	26th	17th
Total degrees earned in STEM fields	20th	16th

Source: Integrated Postsecondary Education Data System

Rates and Ratios

Indicator	Minnesota Rank 2004
Bachelor's degrees awarded as a proportion of total headcount enrollment	26th
Associate degrees awarded as a proportion of total headcount enrollment	17th
Associate degrees and certificates awarded as a proportion of total headcount enrollment	5th
First to second year retention at two-year colleges	21st
First to second year retention at four-year colleges	10th
Four-year graduation rate (four-year colleges)	19th
Six-year graduation rate (four-year colleges)	22nd
Three-year graduation rate (two-year colleges)	22nd
Participation rate (high school graduates directly to college)	5th

Source: Integrated Postsecondary Enrollment Data System

Proportions of Degrees Earned in Critical Fields

Indicator	Rank	
	2004	2005
Proportion of certificates, diplomas, and associate degrees in health fields	15th	13th
Proportion of bachelor's degrees in health fields	37th	40th
Proportion of master's degrees in health fields	32nd	36th
Proportion of doctoral/professional degrees in health fields	27th	36th
Proportion of certificates, diplomas, and associate degrees in STEM fields	34th	35th
Proportion of bachelor's degrees in STEM fields	27th	17th
Proportion of master's degrees in STEM fields	42nd	47th
Proportion of doctoral degrees in STEM fields	39th	34th

Source: Integrated Postsecondary Education Data System

Appendix E
Definitions and Terms in the Report

Institutions:

Four-year institutions: For purposes of this report, four-year institutions were all postsecondary institutions in Minnesota that offer bachelor's degrees as their primary undergraduate degree.

Two-year institutions: For purposes of this report, two-year institutions were all postsecondary institutions in Minnesota that offer associate degrees as their primary undergraduate degree.

University of Minnesota: References to the University of Minnesota included the state's land grant campus in the Twin Cities and its comprehensive regional institutions in Duluth, Morris and Crookston.

Minnesota State Colleges and Universities: This state-supported system comprises seven state universities and 30 community and technical colleges across Minnesota.

Private colleges: These institutions were licensed or registered by the state, and their students are generally eligible to receive state and federal financial aid. Some colleges are church affiliated; others are independent. There were many different classifications within the private college sector:

- Not-for-profit, four-year institutions: These schools have a tax-exempt status and are typically church affiliated. Examples are St. Olaf College, Macalester College and Augsburg College.
- Not-for-profit, two-year institutions: At the time of this report, Dunwoody College of Technology was the only institution in this category.
- For-profit, two-year institutions: These for-profit schools award primarily associate degrees. Examples are Brown College and Rasmussen College.
- Private career schools that do not offer associate degrees as their primary program type are not included in this report. These are schools with a specific expertise such as cosmetology, truck driving, massage therapy or pet grooming.

Predominantly Online Providers:

Specific data on online providers were omitted from this report; however, data for some Minnesota-based providers were included in some of the statewide measures.

New Economy States:

For many of the indicators in this report, Minnesota's position was compared against the average for the top 10 "New Economy" states. These are 10 states that received the highest aggregate ranking from the Progressive Policy Institute, a non-profit research and education organization, on 21 key indicators of economic progress. These states are believed by the Institute to be well positioned to succeed in the new economy. The 10 states are Washington, California, Colorado, Connecticut, Delaware,

Appendix E continued
Definitions and Terms in the Report

Massachusetts, Maryland, New York, New Jersey and Virginia. Minnesota ranked thirteenth. The New Economy index was last updated in 2002.

Best-performing states:
For several of the indicators, Minnesota's performance was compared to the best and second best performing states. In cases where trends over time were being evaluated, the best states were identified for the most recent year and the trend shows their history. In cases where trend analysis was not shown, the best state was selected for each specific year shown.

STEM fields:
STEM stands for Science, Technology, Engineering, and Mathematics. The acronym was first used by the National Science Foundation to describe the types of programs eligible for certain grant programs. For the purposes of this document, STEM fields include agriculture, environmental science, computer science, engineering, engineering technology, biological science, mathematics and physical sciences (including chemistry and physics).

Student descriptions:
Assessing the situations of students by race and ethnicity was sometimes limited due to constraints of data collection systems. Existing data do not recognize the breadth of diversity that exists within communities of color. Since most indicators draw data from the Integrated Postsecondary Education Data System, that system's terms were used throughout the report (black, Asian or Pacific Islander, Hispanic, American Indian and white).

International students described in this report were non-resident aliens who were residents of countries other than the United States and who were studying at colleges and universities for the sole purpose of completing a higher education degree. Other sources sometimes refer to these students as foreign nationals or non-resident aliens.

Per capita:
This means of measuring outputs in relation to the population. For example, the number of health care degrees produced per 1,000 residents age 20 and older were reported as a way to compare states with vastly different populations.

Averages:
Wherever possible, average rates of groups of states were computed using all available data rather than taking an average of the rates.

Sources

Integrated Postsecondary Education Data System (IPEDS):
This source is cited throughout the report and refers to the national enrollment statistics for higher education maintained by the U.S. Department of Education's National Center for Education Statistics.

American Community Survey (ACS):
The American Community Survey is a continuous demographic survey conducted by the Census Bureau that will eventually provide accurate and up-to-date profiles of America's communities every year. Questionnaires are mailed to a sample of addresses to obtain information about households. The survey produces annual and multi-year estimates of population and housing characteristics and produces data for small areas.

Organization for Economic Cooperation and Development (OECD):
This is a group of 30 countries committed to democratic government and the market economy. The organization provides a setting where governments can compare policy experiences, seek answers to common problems, identify best practices and coordinate domestic and international policies. The organization is committed to improving policy and produces internationally-agreed upon assessment instruments and recommendations in areas where multilateral agreement is necessary for individual countries to make progress in a global economy.

Office of Higher Education Student Enrollment Record Database:
The Office of Higher Education's student enrollment record database contains unit records for students enrolled during the fall term in Minnesota's public and private postsecondary education institutions. Institutions are asked to provide unit records for students enrolled on the tenth day of fall term, or the institution's official fall reporting date. Institutions without distinct academic terms are asked to

Sources continued

provide enrollments using the three-month period July 15 through October 15 as a proxy for tenth-day fall data. Institutions eligible to participate in a Minnesota-funded student financial aid program are required to report their student enrollment data.

Minnesota Department of Education:

This agency oversees statewide testing in pre-kindergarten through high school. The Minnesota Comprehensive Assessment Series II (or MCA II) are statewide tests that measure student progress.

National Science Foundation:

This is the branch of the federal government that collects information on research and development across the United States. It is recognized by higher education institutions and research agencies as the primary and official source of this data.

National Postsecondary Student Aid Study:

The National Postsecondary Student Aid Survey was a national survey of students conducted by the National Center for Education Statistics at the U.S. Department of Education. The most recent year for which data were collected was 2004. The study provides a nationally-representative stratified random sample of undergraduate, graduate and first professional students attending postsecondary institutions. The study's purpose is to provide information about how students and their families pay for education and to assess certain characteristics of students enrolled in postsecondary education.

Post-Secondary Education Opportunity:

Headed by research analyst Tom Mortenson, Post-Secondary Education Opportunity is an organization based in Oskaloosa, Iowa, providing nationwide research and perspective on a range of college access topics.

About the Minnesota Office of Higher Education

The Minnesota Office of Higher Education is a cabinet-level state agency providing students with financial aid programs and information to help them gain access to postsecondary education. The agency serves as the state's clearinghouse for data, research and analysis on postsecondary enrollment, financial aid, finance and trends.

Acknowledgements

The Office of Higher Education thanks the Minnesota State Colleges and Universities, the University of Minnesota, the Minnesota Private College Council and the Minnesota Career College Association for their participation and assistance in this process.

Authors

Mark Misukanis, Ph.D.
Director of Fiscal Policy and Research
Office of Higher Education
mark.misukanis@state.mn.us

Jim Bohy, Ed.D.
Associate Director of Higher Education Accountability
Office of Higher Education
jim.bohy@state.mn.us

This document can be made available in alternate formats for people with disabilities.

How to Contact Us

For more information on our programs and services, please contact us at:

Minnesota Office of Higher Education

1450 Energy Park Drive, Suite 350
Saint Paul, MN 55108-5227

Tel: 651.642.0567 or 800.657.3866
TTY Relay: 800.627.3529
Fax: 651.642.0675

E-mail: info@ohe.state.mn.us

www.getreadyforcollege.org
www.ohe.state.mn.us

Printed on recycled paper.

Minnesota Office of Higher Education