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## Minnesota Educational Needs and Higher Education Finance Policy

### Introduction

Minnesota is heading into challenging territory. In the decades following World War II, Minnesota had a growing and mostly homogenous population, with its citizens becoming more educated and thereby increasing their earning potential. The significant economic growth of this period was nurtured by a strong public commitment to education, according to the state demographer Tom Gillaspay.<sup>1</sup> Looking ahead, our economy faces new challenges as socioeconomic shifts occur and the importance of a college-educated workforce grows. And we face these challenges in an environment where the political commitment to supporting access to postsecondary education is unclear.

This research brief will examine four interrelated topics:

1. Forecasted demand for postsecondary-educated individuals,
2. Trends in socioeconomic change that Minnesota has experienced and forecasts for the coming years,
3. College participation of low-income students, and
4. Policy responses in terms of financing postsecondary education.

### Minnesota's future postsecondary completion needs

Individual economic prosperity can be achieved in many ways, but when examining large populations such as states, the connection between education and income is undeniable. Research from many sources has shown that those who earn a bachelor's degree earn higher annual and lifetime earnings than those who earn only a high school credential. For instance, according to the Georgetown University Center on Education and the Workforce study of national education and earning data, in 1999, the average lifetime earnings of an individual earning a bachelor's degree was \$2.7 million (2009 dollars), 75 percent more than that earned by high school graduates. The center's recent research indicates that in 2009, the premium on college education has grown to 84 percent over a high school degree, or that a bachelor's degree is worth \$2.8 million more over a lifetime on average.<sup>2</sup> Further, according to the center's research, annual earnings for those who stop education after a high school degree are \$32,600 compared to \$56,700 for those who go on to earn a bachelor's degree. Therefore the annual premium for earning a bachelor's degree compared to a high school degree nationally is 74 percent. In Minnesota, this trend holds in that bachelor's degree recipients earn on average 74 percent more than those earning only a high school credential.<sup>3</sup>

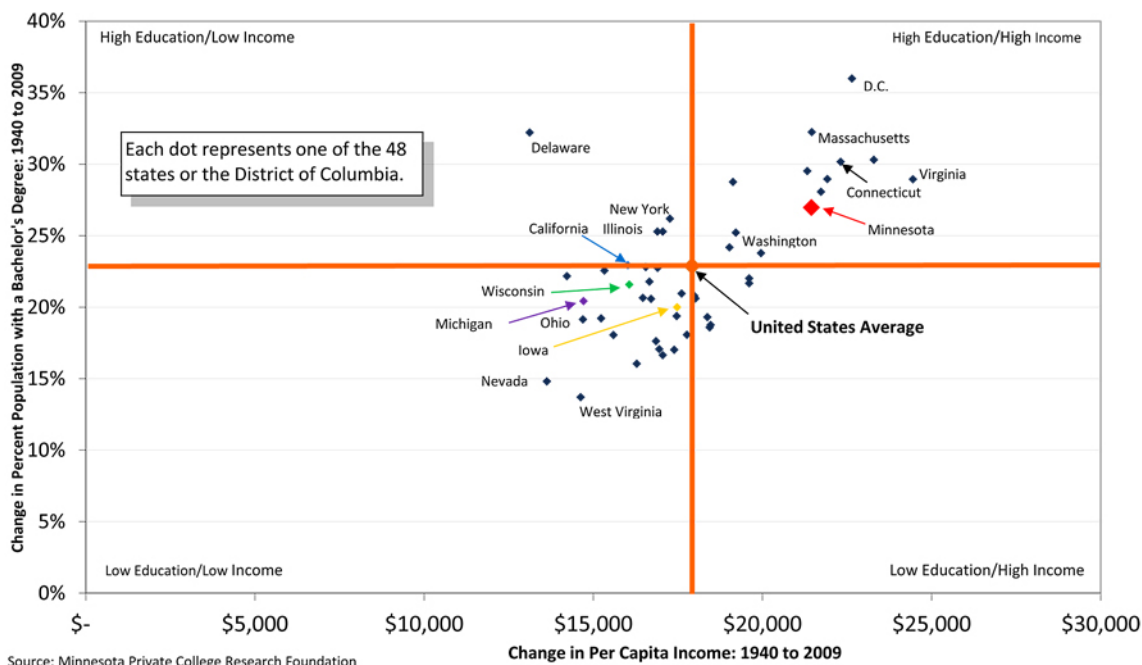
*This is one in a series of research-based briefs prepared by the Minnesota Private College Research Foundation for Minnesota Private College Council members and other interested parties.*

*If you have a question or suggestion for a topic for a future issue brief, please contact the Research Foundation.*

Chart 1 illustrates another example of the connection between income and education. The chart shows the change in the percent of a state’s population with a bachelor’s degree and the change in inflation adjusted per capita income since 1940. Minnesota is grouped with a cluster of nine states that lead the nation in growth in per capita income. This nine-state cluster also leads in the growth in the population’s proportion with a bachelor’s degree.

The modern Minnesota economy was built largely on brainpower developed over time. In 1940, Minnesota ranked 31st with 4.7 percent of the state’s population having attained at least a bachelor’s degree. Over the past seven decades, that percent has increased to 31.2 percent, moving the national ranking up to 12th — representing an increase of 27 percentage points, the 11th best increase in the country. The increase in education has corresponded with a large change in per capita income for the state’s population. Inflation-adjusted per capita income in Minnesota increased from \$7,985 in 1940 to \$29,431 in 2009; during this same time period Minnesota moved from the 26th ranked state to the 10th in terms of per capita income.

**Chart 1: Change in Inflation-Adjusted Income and Population with a Bachelor’s Degree, 1940 to 2009**



According to research from the Georgetown University Center on Education and the Workforce, currently about 68 percent of jobs in Minnesota require some form of postsecondary training. It is forecasted that in 2018, Minnesota will require approximately 70 percent of the population to have some level of postsecondary education — the third highest rate in the nation.<sup>4</sup> Further, some suggest the need for individuals with some form of higher education training will be even greater, with one Minnesota think tank proposing a goal of increasing the proportion of the population with some postsecondary credential to 75 percent.<sup>5</sup> This is compared to the current 56 percent of Minnesotans between 18 and 64 who have at least some college (may include courses and unfinished degree or certificates) or higher (including associates through graduate degree).<sup>6</sup> The difference between the 56 percent census figure and Georgetown’s figures could be due to factors such as underqualified individuals serving in positions that are defined as requiring some form of higher education. It is a topic that could benefit from future research.

Thus, there is strong evidence and wide consensus that Minnesota’s economy will be largely knowledge-based and the state will have to increase the proportion of the population with some form of higher education credential in order to sustain the economic success the state has enjoyed since the mid-1950s. The challenge facing Minnesota is that the population is changing.

**Socioeconomic trends: Minnesota’s young become poorer**

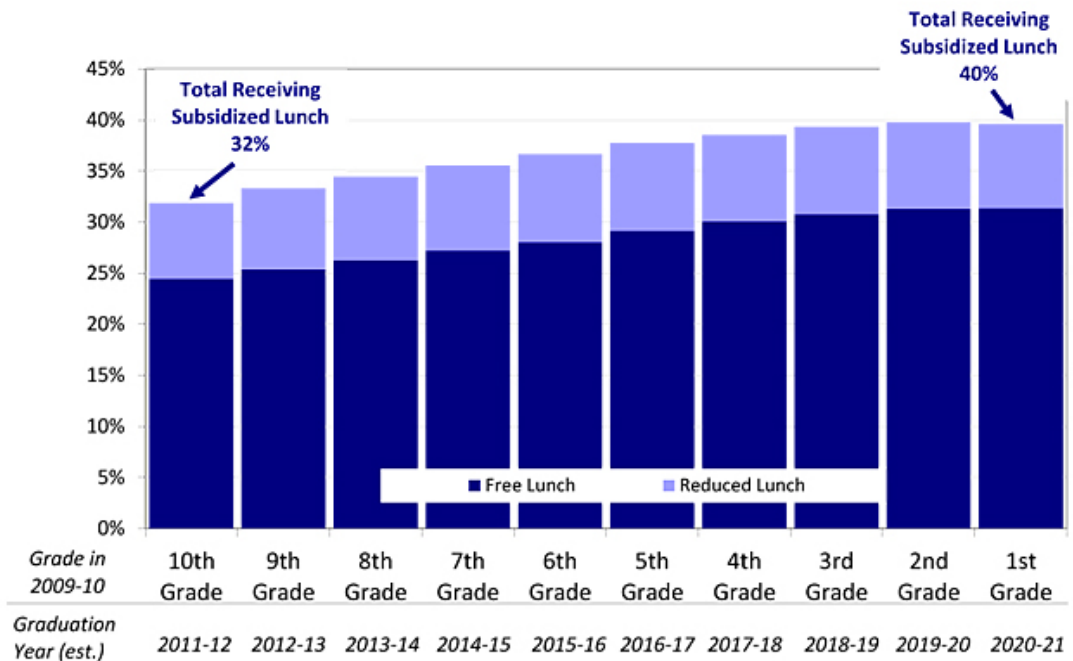
A growing share and number of Americans live in poverty.<sup>7</sup> According the United States Census Bureau, the poverty rate in 2009 (14.3 percent) was at its highest level since 1994 and the number of people in poverty in 2009 (43.6 million) is the largest it has been in the 51 years the data have been published.

Poverty in Minnesota mirrors national trends. The percent of the Minnesota population in poverty in 2009 is 11 percent, the highest in 30 years. To gauge the share of Minnesota children in poverty, one measure for low-income status is the number of K-12 students receiving free or reduced lunch (FRL). While not a perfect measure, it is a proxy for those students in the education pipeline who are low-income.

The percent of 10th graders who received FRL in the 2009-10 school year was 32 percent (chart 2).<sup>8</sup> This means that for this year’s high school graduates, approximately one-third came from low-income families. The share of low-income high school graduates in Minnesota stands to grow to 40 percent by 2021 as this is the share receiving FRL in first grade in the 2009-10 school year.

**Chart 2: Low-Income Student Growth:**

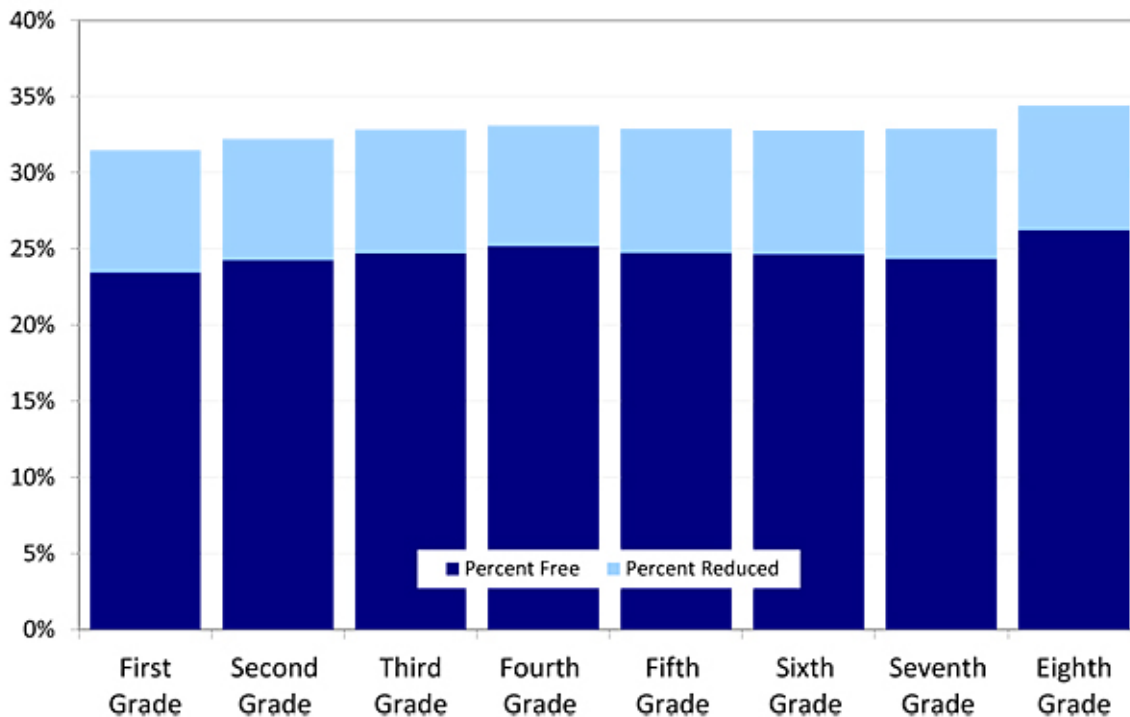
*Percent of students receiving subsidized lunch by grade and anticipated year of graduation (2009-10 data)*



Source: Minnesota Private College Research Foundation analysis of Minnesota Department of Education enrollment data.

Furthermore, each class is also getting poorer as they get older. Each individual class' proportion of students who come from low-income families is growing each year. For example, the eighth grade class in 2009-10 had 34 percent of its class receiving FRL (chart 3). Seven years earlier, only 31 percent of the cohort received FRL, meaning that the individual class gradually got poorer over time. If this trend continues, we could expect more than the current high-water mark of 40 percent receiving FRL when the 2009-10 first graders graduate. It may in fact be closer to the current nation's average of 50 percent. This means that half of all Minnesota high school graduates would be low-income, far greater than the current approximation of 30 percent.

**Chart 3: Tracking the High School-Graduating Class of 2013-14**  
*Percent of 8th grade cohort who are low-income (2009-10 data)*



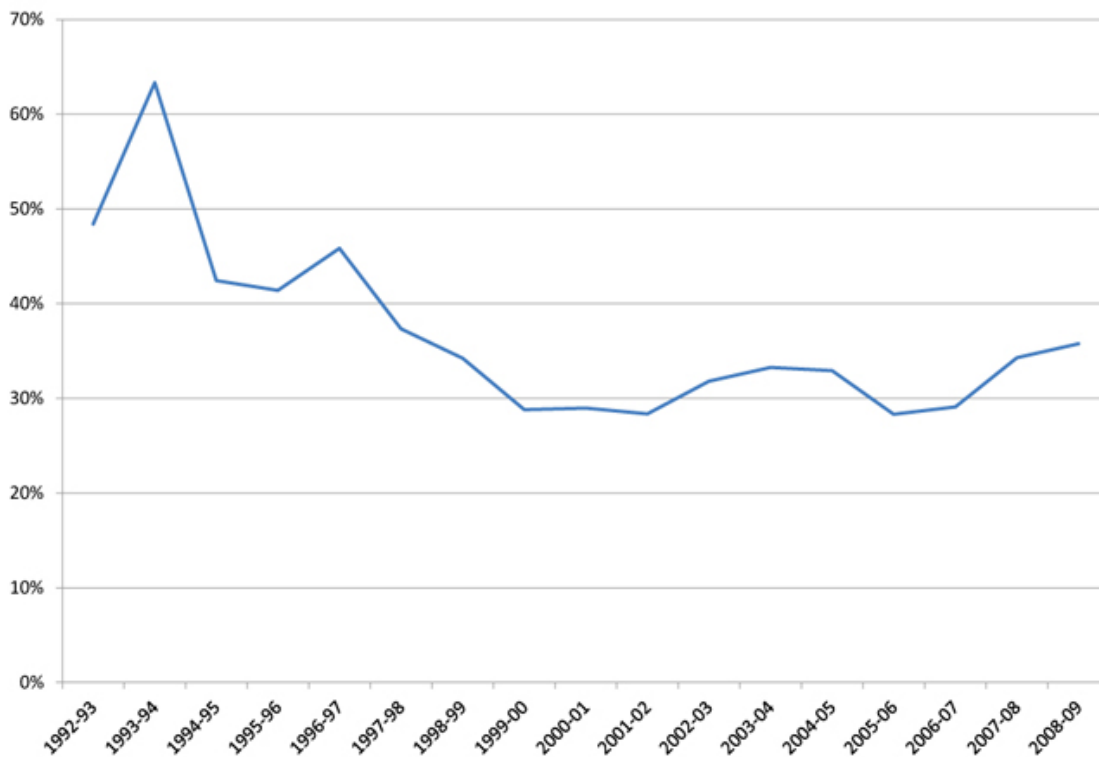
Source: Minnesota Private College Research Foundation analysis of Minnesota Department of Education enrollment data.

### College participation of low-income students

The growth in low-income students has implications for postsecondary participation and the sustainability of Minnesota's future economy. Nationally, the postsecondary enrollment rate for students from low-income families has increased over the past 35 years; however, the rate for students from higher-income families has grown much faster. To add perspective, recent research suggests that low-income high school graduates enroll in postsecondary education at about 55 percent compared to higher income students enrolling at 84 percent (National Center for Education Statistics, *The Condition of Education 2011*). Unfortunately, these data are not available at the state level.

Postsecondary Education Opportunity provides state level estimates of low-income student participation in higher education using a different method. As shown in chart 4, the organization estimates that about one-third of Minnesota’s low-income high school students participate in postsecondary education after graduation.<sup>9</sup> While this rate has increased slightly in recent years, it is still down from the nearly 50 percent of low-income students who participated in 1992-93. The estimate for Minnesota is slightly higher than the U.S. as a whole where 27 percent of low-income students nationally participate in postsecondary education according to the Postsecondary Education Opportunity analysis. This compares to approximately 70 percent of all recent Minnesota high school graduates who continue on to postsecondary education the following year.<sup>10</sup>

**Chart 4: Percent of Minnesota’s Low-Income Students Participating in College**

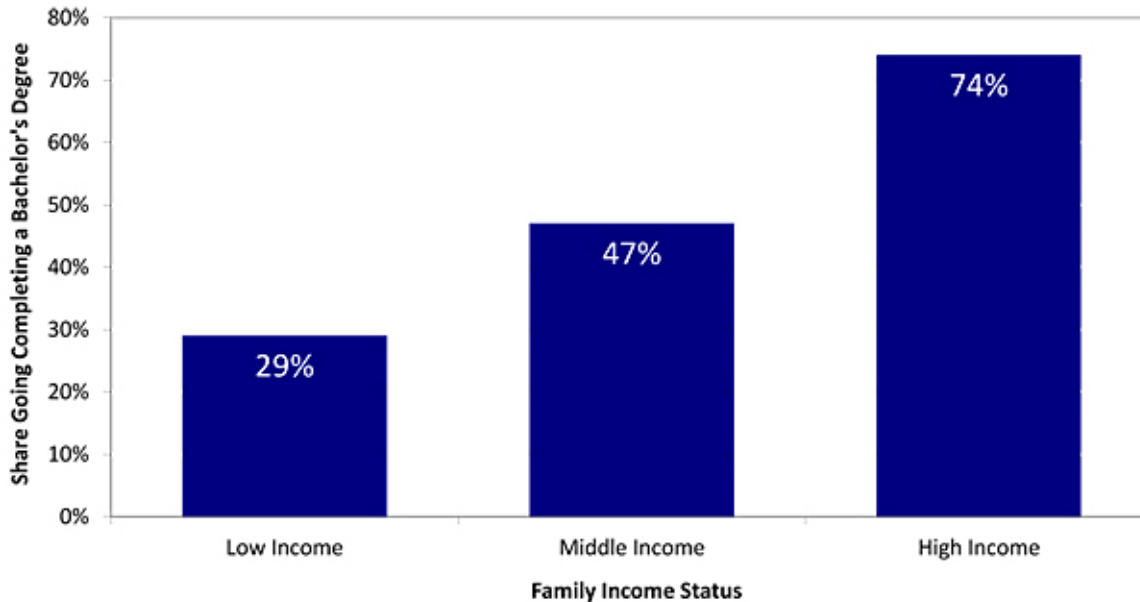


Source: Postsecondary Education Opportunity

Finally, recent research from the College Board has shown the gap in completion of a bachelor's degree for all high-ability eighth graders is based on income. As shown in chart 5, a lower percent of high-ability, low-income students (29 percent) complete a bachelor's degree compared to high-ability, high-income students (74 percent).

### Chart 5: High-Ability Eighth Graders

*Low-income students are less likely to complete a bachelor's degree*



Source: College Board Education Pays report 2007

While these figures for low-income participation differ, the differences can be attributed to different data sources and methods of analysis which this research is not trying to reconcile. The critical point is that there is a substantial gap in postsecondary participation of low-income high school graduates compared to higher income graduates.

When the number of low-income students increases, the odds are high that the state will see a drop in the share of Minnesota high school students who go on to college. This is due to the historical trend of low-income students participating and completing college at a lesser rate than higher income students. In other words, while Minnesota may be meeting today's demand for highly educated workers through an over-reliance on middle and upper income families whose children attain a post-secondary credential or degree at higher rates, a continuation on this path is unsustainable as a greater proportion of high school students come from low-income families and will result in a shortfall of educated workers in the coming years.

It is worth noting that any decrease in Minnesota resident college enrollment will not likely be filled by the enrollment of students from other states. Some institutions may succeed in filling enrollment goals by recruiting out-of-state students, but Minnesota as a whole loses more resident high school graduates who attend a postsecondary program in another state than it brings in annually. Over the past several years, Minnesota has averaged a net loss of over 5,000 students annually.<sup>11</sup> Of these students who go on to complete a postsecondary credential in other states, it is unknown how many return to live and work in Minnesota. Additionally, it is unknown how many students graduating from high school in other states complete a postsecondary credential at an institution in Minnesota and then remain in Minnesota.

Another migration phenomenon is the in- and out-migration of adults who have earned a bachelor's degree. Minnesota currently imports more individuals with higher education credentials than it exports. For example, from 2005 to 2007 Minnesota imported over 4,300 more individuals with bachelor's degrees than it exported and nearly 4,000 individuals with an associate's degree or higher than it exported. While this is helpful for our workforce, it may not constitute a self-sustaining source of college graduates.

In sum, the proportion of the future high school graduates from low-income families is growing and these students traditionally attend and complete postsecondary education at lower rates. *Thus, to ensure that 70 to 75 percent of our working age population has a postsecondary credential, Minnesota must increase college participation and completion among low-income students.*

### **Minnesota higher education financial support trends: Will current policy achieve needed ends?**

This final section examines trends in Minnesota postsecondary finance. There are two primary avenues of public financing for higher education in Minnesota. First are state subsidies to public institutions, which are intended, in part, to keep tuition and fees low at two- and four-year public campuses. The second mechanism is need-based aid through the Minnesota State Grant program, which provides funds to low- and middle-income students to attend a postsecondary institution of their choice, whether public, private non-profit, or private for-profit.

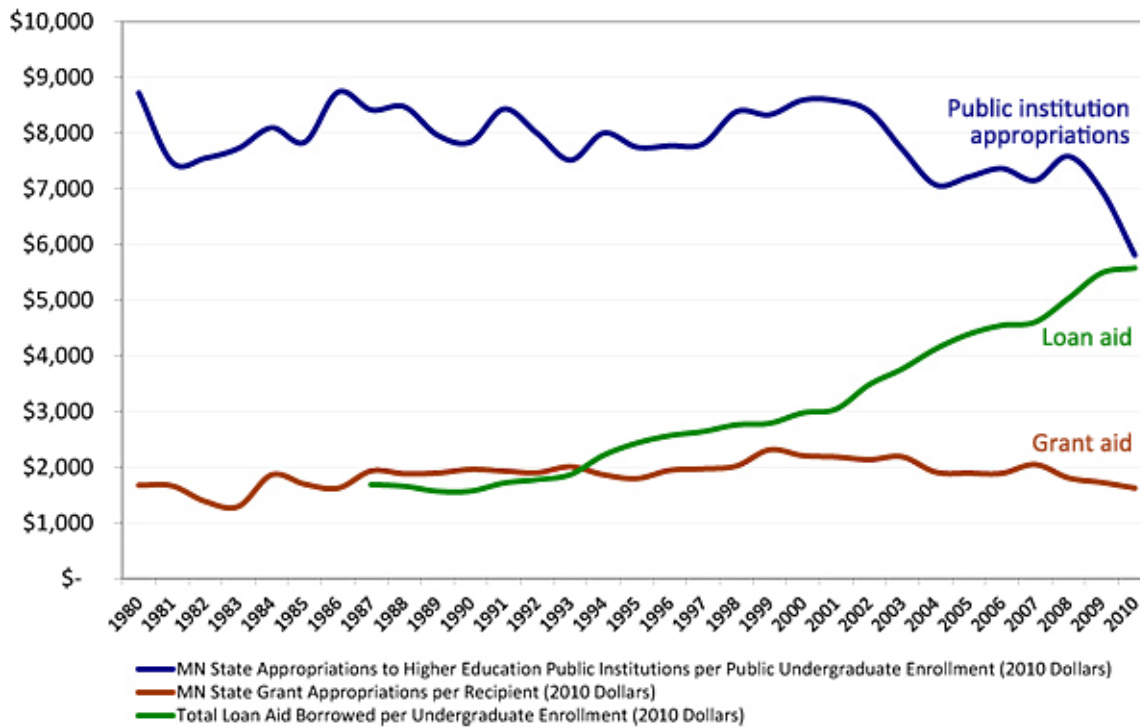
As Minnesota's population has grown over the past three decades, so has postsecondary enrollment. Since 1980, enrollment at public institutions has increased 73 percent while nonprofits have experienced increases of 52 percent.

Over the same time period (1980 to 2010), state sources of support for higher education have been relatively flat. Funding per undergraduate, when adjusting for inflation, remained between \$7,000 and \$9,000 until the most recent couple of years. Generally, the last decade has seen the beginning of a downward trend in both appropriations to public institutions and spending on need-based aid per capita (see chart 6).

As shown in chart 6, state appropriations per undergraduate student attending public institutions have decreased 33 percent and need-based grant aid to recipients has decreased 3 percent. Even though the grant aid funding amount appears level, increasing college costs have significantly decreased the buying power of these funds each year (chart 7). Meanwhile, student borrowing has steadily increased — up 225 percent since 1987 (chart 6). Further, in 2009, 73 percent of students graduated with debt, averaging cumulative debt of more than \$27,000.

As for the downward trend in state support for public institutions, as illustrated in chart 6, it appears that state support has not kept pace with growth in postsecondary enrollment. While total combined (need-based and public appropriations) inflation-adjusted dollars dedicated to higher education in Minnesota has increased 23 percent since 1980, total undergraduate enrollment has grown significantly more increasing 65 percent over the same time period (this does not include for-profit online enrollment as these students could reside in any state). This disproportionate increase in enrollment compared to funding leads to decreases in funds per student.

**Chart 6: State Grant, Public Institution Appropriations, and Total Loan Aid Borrowed per Undergraduate Enrollment (Inflation Adjusted 2010 Dollars)**



Source: Minnesota Private College Research Foundation analysis of Grapevine compilation of state higher education tax appropriations and Minnesota Office of Higher Education data.

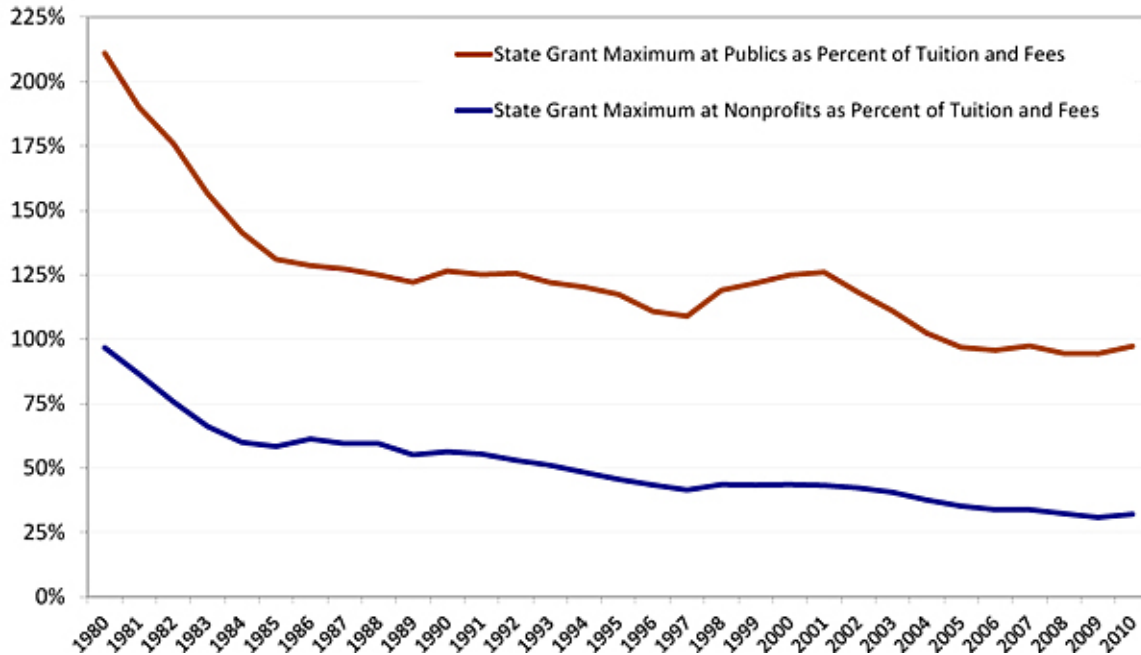
In part in response to a downward trend in public financial support, institutions have increased tuition. From 1980 to 2010, tuition and fees (adjusted for inflation) have increased 287 percent at public institutions and 240 percent at private nonprofit institutions. Even if institutions received flat public support, they still face increasing costs in health care, energy, and most notably for their faculty and staff. As Archibald and Feldman note, the key characteristics driving higher education costs are a) a reliance on highly educated workers, b) reliance on close interaction between “providers” and “customers” and c) improvements to service — but not cost savings — made possible by new technology.<sup>12</sup> Thus, increases in prices for these services are driven by the rapidly rising cost of hiring educated employees (faculty), the labor-intensive nature of the education enterprise, and how technology is improving the quality of services provided but not reducing costs.

Increasing costs to provide quality education coupled with constant or decreasing public support have contributed to institutions having to increase tuition to cover postsecondary costs. However, institutions have also increased their grant aid to assist students in affording a postsecondary experience. Institutional grant aid given by public and private institutions has increased over 4,780 percent in inflation-adjusted dollars since 1987 (Private nonprofits contribute 75 percent of all institutional grant aid in Minnesota).<sup>13</sup>

Finally, the purchasing power of the Minnesota State Grant has declined as a percent of tuition and fees for public and private non-profit institutions. The Minnesota State Grant maximum is determined by a formula incorporating the Pell Grant program. Thus, both the state and federal government grant aid programs are depicted

in the illustration. As shown in chart 7, the maximum grant aid received as a proportion of tuition and fees has decreased. Further, this is a measure of only a portion of all student costs as students must also cover charges for room, board, travel, and books.

**Chart 7: State Grant Maximum as a Percent of Tuition and Fees**



Source: Minnesota Private College Research Foundation analysis

## Conclusion

This research brief states the needs for higher education production, the potential impact of expected socioeconomic trends on college participation, and the policy environment in terms of higher education finance.

As public funding for higher education has decreased, the onus for paying for higher education has passed through institutions on to students and their families, many of whom are now borrowing at unprecedented levels and being burdened with debt that will limit their ability to participate in the economy via the purchase of homes, cars and other goods for years. For many it will also delay or eliminate their ability to start saving for their children's education as they pay off their own educational debt.

Minnesota needs to increase the share of the population that has attained a postsecondary credential over the next 10 years to sustain its economy. However, the population moving through K-12 is changing, growing proportionately more low-income. This change makes it more difficult to increase educational attainment levels, as needed to meet economic demand.

Despite a changing population, on a per capita basis Minnesota has seen declining funding for the public institutions and need-based student financial aid. This declining investment in higher education as a public good has been occurring even though the need for increased educational attainment has been well documented and widely acknowledged.

A new approach to public investment in higher education is imperative given the negative economic ramifications of continuing under the status quo. Increasing the share of our population earning postsecondary credentials will require significant changes in higher education policy and a much stronger commitment of public financial resources to higher education.

### Endnotes

- 1 Tom Gillaspay. January 2010. 2020 Foresight, Twin Cities Business magazine.
- 2 Georgetown University Center on Education and the Workforce. "The College Payoff." 2011. Additionally, The College Board report "Education Pays 2010" indicates that median earnings for an individual with a high school degree only are \$26,000 compared to \$42,700 for those earning a baccalaureate.
- 3 Minnesota Private College Research Foundation. July 2010. "Change in Income by Education Level, by Race in Minnesota." Research Brief.
- 4 The Georgetown University Center on Education and the Workforce.
- 5 Growth and Justice. [www.growthandjustice.org](http://www.growthandjustice.org)
- 6 United States Census Bureau, American Communities Survey 2009.
- 7 Minnesota Private College Research Foundation. February 2011. "Examining Factors Related to Enrollment." Research Brief.
- 8 Federal government guidelines for free or reduced price meals are obtained by multiplying Federal income poverty guide lines by 1.30 and 1.85, respectively. Thus, more students will be considered low-income than measures of state population in poverty.
- 9 The Mortenson Seminar on Public Policy, Analysis of Opportunity for Postsecondary Education. [www.postsecondary.org](http://www.postsecondary.org).
- 10 10 Minnesota Office of Higher Education analysis of participation of Minnesota high school graduates. <http://www.ohe.state.mn.us/mPg.cfm?pageID=753>
- 11 Minnesota Private College Research Foundation. November, 2009. "Student Migration Trends: Minnesota's Net Loss of College-Going High School Graduates." Research Brief.
- 12 Robert Archibald and David Feldman. "Why Does College Cost So Much?" (Oxford Press, 2011).
- 13 Earliest date these data are available from Minnesota Office of Higher Education "Financial Aid Awarded" reports.