Executive Summary

Minnesota State Grant Review

October 2008

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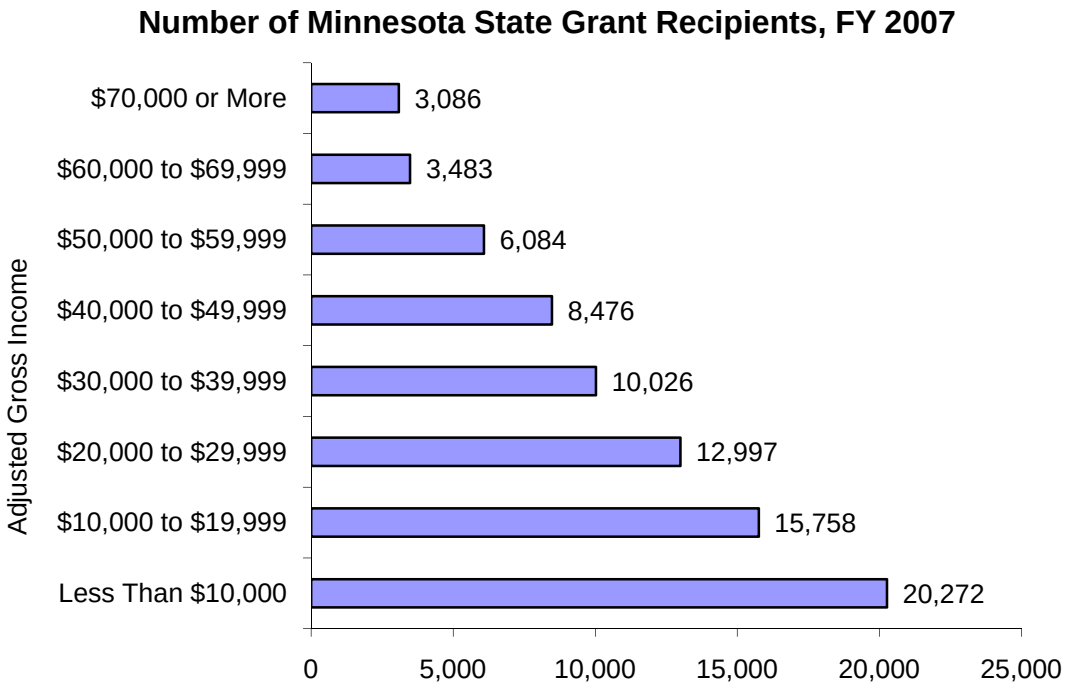
Introduction

The Minnesota State Grant program is a need-based financial aid program created to assist Minnesota resident undergraduates attending public and private postsecondary institutions in Minnesota. The program, first established in 1969, has grown and changed over the years and currently awards approximately $140 million in gift aid to 70,000 students each year. The program is designed to complement the federal Pell grant program and provide choice and access to undergraduate students to attend the postsecondary institutions that best meet their needs. While many states offer larger state financial aid programs, Minnesota's State Grant program ranks among the top ten states in the nation in need-based grant dollars awarded per full-time undergraduate student, according to the National Association of State Student Grant and Aid Programs.

Overview of State Grant Program

The Minnesota State Grant program targets grant aid to students based on the price of attendance and the income and financial resources of the students and their families. The program has been credited with helping hundreds of thousands of students attend and complete postsecondary degrees since its inception.



Source: Minnesota Office of Higher Education

Minnesota State Grant policy has been based on a model called the Design for Shared Responsibility since 1983.[1] This model was initially built on the work done by the Carnegie Commission on Policy Studies in Higher Education.[2] State Grant policy assigns responsibility for paying for college to undergraduates, their families and, if necessary, state and federal taxpayers. The goal of the program is established in Minnesota Statute 136A. 095:

> *The legislature finds and declares that the identification of men and women of the state who are economically disadvantaged and the encouragement of their educational development in eligible institutions of their choosing are in the best interests of the state and of the students.*

This policy statement guides Minnesota policy makers in responding to changes in tuition and fees and living expenses faced by students. State Grant policy distributes the price of postsecondary education based on family income and attendance choices among students, families, and taxpayers. The principles underlying this policy are described more fully in the overview chapter.

About this Report

The higher education funding bill enacted in the 2007 session contained a provision that required the Minnesota Office of Higher Education to undertake a thorough analysis of the State Grant program. A preliminary report was due to the Legislature by February 15, 2008 with a final report to follow by October 1, 2008. This report is submitted to fulfill the second requirement.

The language in the bill was specific in the scope of analysis required in the study. The analysis and evaluation must include:

(1) evaluation of the assigned student share compared to the current and future income of a student, and analysis of the number of hours a student must work to meet the assigned student share without borrowing;

(2) evaluation of the assigned family contribution, how it is determined under the federal needs analysis, and how it compares to expectations of families in other public programs;

(3) analysis of the ways that students and families pay the assigned student share and the assigned family contribution;

(4) analysis of the recognized cost of attendance compared to actual attendance costs and the ability of individuals and families at various income levels in Minnesota to pay the cost of attendance;

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[1] Created by the *Laws of Minnesota for 1983*, Chapter 258, Sections 41 and 42. Codified in *Minnesota Statutes 2006* 136a.121 subdivision 5.

[2] Carnegie Council on Policy Studies in Higher Education (1979). *Next Steps for the 1980s in Student Financial Aid: A Fourth Alternative* (San Francisco, CA: Jossey-Bass).

(5) analysis of the actual living and miscellaneous expenses of students, with particular attention to differences between traditional and nontraditional students, and comparison to the amount currently used in the state grant formula; and

(6) analysis of other parameters of the program considered relevant by the office, including prorating the state grant amount instead of the budget for the cost of attendance and changing the definition of full-time enrollment. Whenever possible, the analysis must include:

(i) cost estimates and information on how recommended changes affect students at various income levels and at different higher education institutions in Minnesota; and

(ii) the distributional effects, by income quintile, of state grant program parameters on students and families.

The office also shall assess the feasibility of expanding the eligibility for state grants to include graduate and first professional students pursuing degree programs deemed to be important to the workforce needs of the state. By February 15, 2008, the Minnesota Office of Higher Education must report its preliminary findings and recommendations to the committees in the house of representatives and senate with primary jurisdiction over higher education policy and finance and workforce development on options to enhance the targeting of financial aid to state grant recipients, with the final report submitted by October 1, 2008.

The results of this analysis are contained in a series of reports, which accompany this executive summary.

Following the delivery of the preliminary report to the Legislature in February 2008, the agency held a series of topic-specific sessions to allow for input from interested stakeholders in the development of this final report. During the months of May, June, July and August, nine meetings were held to discuss and gather input from attendees on each chapter of the study. Participants included representatives from the state's two public systems, the for-profit and non-profit private institutions, students, staff from the Legislature, representatives of businesses groups and other interested parties. Invitations also went out to groups such as Growth and Justice and the Center for the American Experiment. The final report reflects these discussions.

Findings

General

The findings below attempt to summarize the considerable discussion and input received regarding the Minnesota State Grant program since the 2007 Legislative session. There are two central ideas that result from this work.

1. The design of the State Grant program as established conceptually in the Design for Shared Responsibility model is fundamentally sound. The model allocates the price of higher education to three parties, the student, family and taxpayer and does so across many different situations faced by students.

2. There was extensive discussion in the meetings about price of attendance. Participants generally agreed that the price set by policy makers, whether reflected in Tuition and Fee Maximums or the Living and Miscellaneous Expense allowance, must reflect the market realities faced by students. Without this, it is difficult if not impossible to evaluate if the general parameters in the model, such as the student share or the expectations of families, are working to meet the policy goals of the program. There is some evidence that the failure to set the price at market levels burdens students from the lowest income families the most. That is, their burden is higher than the net price for middle- and higher- income families.

Program-Specific Findings

This section provides findings from the individual reports on particular aspects of the program. They follow the more detailed analysis in each report.

Tuition and Fee Maximums: Tuition and Fee Maximums are the limits on the amount of tuition and required fees that may be recognized when calculating State Grant awards. The maximums are established in state law each biennium. The Tuition and Fee Maximums have traditionally been pegged to the maximum tuition and fees charged at public institutions. In recent years, the Tuition and Fee maximums for four-year institutions have been slightly lower than the maximum tuition and fees charged by the University of Minnesota.

- Over the years the Minnesota Legislature has increased, decreased and sometimes held constant the Tuition and Tee Maximums used in the State Grant award calculation.

- Using the Tuition and Fee Maximums from the introduction of the Design for Shared Responsibility in 1984 as the base year and inflating the base year amount by the consumer price index, the Tuition and Fee Maximums have not maintained purchasing power over the last 25 years.

- Benchmarking the Tuition and Fee Maximums to taxpayer spending on students attending public institutions would increase the Tuition and Fee Maximums and result in similar taxpayer spending for low- to moderate-income students attending public and

private institutions. Students attending public institutions are supported in part by a public subsidy from the state to institutions, in addition to the State Grant they may receive.

Living and Miscellaneous Expense Allowance: The Living and Miscellaneous Expense allowance is an allowance for books, supplies, housing, food, and other expenses of attendance. In the State Grant program there is one allowance amount recognized for all students, which is set in statute, at $6,025 for Fiscal Year 2007.

- The Living and Miscellaneous Expense allowance used in Minnesota has not kept pace with inflation, as measured by the consumer price index. Using 1981 as the starting point, the actual Living and Miscellaneous Expense allowance has lagged behind its inflationary value almost every year. For the most recent year measured, Fiscal Year 2007, the actual LME of $6,065 was less than the $6,324 it would have been if it had increased at the rate of inflation.

- The LME has been set below the federal poverty threshold for a family size of one, with the LME value of $6,065 for Fiscal Year 2007 representing 56 percent of the poverty threshold.

- The LME is significantly less than the living cost components used in budgets set by campuses across the country and used to package financial aid. Based on data collected by the College Board for Fiscal Year 2007, the "other expenses" portion of undergraduate financial aid budgets ranged from $10,022 to $11,131, while the LME in Minnesota was set at $6,065.

- Based on data from the Consumer Expenditure Survey for the 2001 to 2005 period, average total expenses for books, equipment and supplies, housing, food, transportation and other expenses for 18 to 22 year old students enrolled on a full-time basis were $9,561 a nine-month academic year. The $9,561 amount exceeds the Fiscal Year 2007 LME of $6,065 by $3,496.

Assigned Student Responsibility: The Assigned Student Responsibility is the amount Minnesota expects students to pay toward their education. The Assigned Student Responsibility is currently set at 46 percent of the recognized Price of Attendance, and is set in state statute. It is separate from the amount Minnesota expects families to pay.

- The hours of weekly employment at minimum wage required to fund the Assigned Student Responsibility for students were manageable for students attending most institution types, but exceeded 20 hours per week in some cases. Evidence from research studies shows 20 hours per week is generally the maximum number of hours per week full-time students should work to avoid negative effects on academic performance.

- The hours of weekly employment at state Work-Study program wages required to fund the Assigned Student Responsibility for students were manageable for students at most types of institutions.

- When students borrow subsidized federal Stafford Loans to cover the Assigned Student Responsibility for one academic year, monthly loan payments are generally within a range of two percent of monthly income (public two-year institutions) to 3.2 percent of monthly income (University of Minnesota). However, when loan debt is increased to the amount needed to cover the Assigned Student Responsibility for two or four academic years, the monthly loan payments as a percent of income increased to 4.2 percent (public two-year institutions), 5.1 percent (private two-year institutions), 9.8 percent (state universities), 12 percent (private four-year institutions) and 12.7 percent (University of Minnesota).

- When students use a combination of borrowing and employment to cover the Assigned Student Responsibility, the hours of weekly employment needed to cover the remaining responsibility after the loan is applied are minimal, with a maximum of six hours per week required at the minimum wage (University of Minnesota) and eight hours per week at State Work-Study average wages (University of Minnesota). The analysis assumed students would borrow an amount equal to the Assigned Student Responsibility at Minnesota public two-year institutions.

Assigned Family Responsibility: The Assigned Family Responsibility is the portion of the Recognized Price of Attendance that families are expected to contribute to their child's education. It is similar to the "expected family contribution" used in calculating federal financial aid. (In the case of independent students, the student is responsible for both the Assigned Student Responsibilities and the Assigned Family Responsibilities.)

- The amount assigned to families was analyzed as a percentage of the family's income, called Assigned Family Effort. Assigned Family Effort for a family of four with a median income and a dependent student attending Minnesota's private four-year institutions increased from 6.5 percent to 10 percent from Fiscal Year 1986 and 2001 before decreasing to 9.3 percent in Fiscal Year 2007. The decrease between Fiscal Years 2001 and 2007 is due to small increases in the state-mandated Tuition and Fee Maximums during this period.

- Since 1986, the maximum Assigned Family Effort for students attending other types of institutions has increased and affected more families in the middle of the income spectrum. The peak Assigned Family Efforts for families with students attending the University of Minnesota, for example, increased from about seven percent for incomes of about $30,000 in 1986, to roughly 12 percent for incomes of about $70,000 in 2007. In both cases, the maximum financial effort assigned to families occurred at incomes slightly less than the median incomes of families of four in Minnesota as well as slightly less than the 60th percentile of incomes reported for all families in the United States.

- Families at the 40th and the 60th income percentiles experienced the largest increases in their Assigned Family Efforts between 1986 and 2007. For families with students attending the University of Minnesota, for example, Assigned Family Efforts increased by roughly four percentage points at the 40th percentile and nearly five points at the 60th

percentile. Similar, although smaller, increases were observed for families with students choosing other institutions.

Measuring Ability to Pay: The Minnesota State Grant Program's Assigned Family Responsibilities are intended to reflect a family's ability to pay for postsecondary education. Minnesota relies on the Federal Need Analysis in determining Assigned Family Responsibilities. Federal and state individual income tax systems, Minnesota's Property Tax Refund program and Minnesota programs to assist families with disabled children and childcare all incorporate ability to pay measures. These other government programs were used as benchmarks to analyze the reasonableness of Assigned Family Responsibilities.

- Federal and Minnesota individual income tax burdens increased as income increased. As income increased, tax liabilities were a larger percent of income. Minnesota's Property Tax Refund program tempered property tax "regressivity," but property taxes remained overall regressive.

- The Minnesota State Grant program's Assigned Family Efforts in comparison to federal and Minnesota individual income taxes and Minnesota's Property Tax Refund program were zero for families on the left hand side of the income spectrum, steeply progressive for moderate income families and regressive for families on the right hand side of the income spectrum.

- The Minnesota State Grant program's Assigned Family Efforts, starting at about $20,000 adjusted gross income, were higher when compared to the state's reimbursement program for care of disabled children. Minnesota State Grant Program Assigned Family Responsibilities were higher and Assigned Taxpayer Responsibilities were lower when compared to the dollar amount results using the state's reimbursement formula for care of disabled children.

- The Minnesota State Grant Program's Assigned Family Efforts were similar to the expectations of families in the Child Care Sliding Scale Program up to about $45,000 and again above $65,000 adjusted gross income, but between $45,000 and $65,000 adjusted gross income, Assigned Family Efforts for the State Grant program were higher than the Child Care Sliding Scale program parameters.

Affordability of Higher Education in Minnesota

- When net prices are calculated by taking the Price of Attendance and subtracting grants and scholarships from federal, state, institution and private sources, students from families with lower incomes have lower net prices than students from families with higher incomes.

- While net prices are lower for students from families with lower incomes, the net prices still represent a substantial percentage of family income – more than 30 percent of family income for students from families with incomes of $30,000 or less.

- While dependent students in the lowest income category are typically assigned no additional share of the recognized amount beyond the 46 percent student share, questions have been raised about the capacity of these low-income students to pay the student share.

- While the State Grant program in general is grounded in sound policy, financial expectations placed on older, non-traditional students who are working full time and attending college may discourage some from enrolling due to financial concerns. For part-time, independent students with incomes below $50,000 (the majority of part-time, independent students), attendance at a public university would require 20 percent to 60 percent of their income, were they to attend full time.

How Families Pay for College

- Preparing to meet postsecondary costs remains a high priority in family financial planning, but other priorities, such as the need to save for retirement, are dominating financial concerns.

- Family income has a role in a student's postsecondary attendance and financing of college costs. Many studies indicate a relationship between the type of institution a student attends and what strategies students and families use to fund those institutional costs with family income.

- Families use a variety and combination of strategies to finance postsecondary costs. Income and savings play a key role in college attendance. On average, the largest share of college costs was funded by parents' current income and savings, but many parents indicated they had worked additional hours or additional jobs to meet those costs. Student loans accounted for the next largest share of college costs.

- Saving and borrowing patterns are highly influenced by changes in the overall economy as well as changes in the costs to attend college. Many studies indicated strong changes in saving and borrowing behavior over time, suggesting a need for information on an ongoing basis to assess the impacts of these changes.

- Parents' and students' perceived costs of college influence college attendance. Many studies indicated that the perceived costs of college influence not only a student's enrollment but whether a student considers applying to an institution, thereby removing potential financial aid as a factor in college choice.

- Students may not be realistic in estimating their loan repayments. College students often underestimated their loan repayment amounts.

- Rising educational costs have had a disproportionate effect on different groups of students, from families at different income levels, attending different types of institutions. Certain groups of borrowers, both students and parents, are taking out increasing amounts of debt and may be putting themselves at increased risk.

- Across income levels, many families do not fill out the Free Application for Federal Student Aid. Some studies indicate that 25 percent of families overall did not fill out the FAFSA, including 23 percent of families with annual incomes between $35,000 and $50,000.

- Although parents feel the costs of education have been rising too fast, they also feel they will be able to meet those costs. They consistently place a high value on having their children participate in higher education.

- Parents may not be realistic in their estimates of the costs of college, nor in their preparation to meet those costs.

- There is a scarcity of current family financial decision-making data at the state level. The extent to which family finances played a role in student decisions about whether or not to enroll or drop out of college has not been adequately studied.

- Much still is unknown about how students and families meet the often sizable gap between costs of attendance and the expected family contribution.

Comparisons of the Minnesota State Grant Program with Other State Grant Programs

- Unlike most states, Minnesota tries to assign all the costs of college up to the Recognized Price of Attendance.

- Many states don't fully fund their state grant program. They simply run out of funds and cut off awards at some time each year. This makes the programs unpredictable and thus unreliable for students and families.

- Minnesota had a generous application deadline compared to other states.

Impact of Federal Tax Credits and Deductions for Higher Education

- The federal Hope tax credit, the Lifetime Learning credit and the federal tuition and fee deduction assist students and families in paying for postsecondary education. Unlike student financial aid programs and practices, federal tax benefits are reimbursed though the filing of federal individual income taxes several months later than students and families have paid qualifying out-of-pocket postsecondary education expenses.

- Federal tax benefits generally provide postsecondary education benefits to students and families further up the income spectrum than student financial aid. Nevertheless, many taxpayers receive both federal postsecondary education tax benefits and student financial aid. Some students and families receive federal tax benefits, federal Pell Grants and Minnesota State Grants. Most importantly, federal tax benefits reduce financial burdens

the most for students and families who are expected to pay the most, as determined by the federal need analysis used in student financial aid programs.

Extending the State Grant Program to Graduate Students

- Mechanically, the existing structure of the Minnesota State Grant program could be applied to graduate and first professional students. A recognized amount of tuition and fees could be established. A Living and Miscellaneous Expense allowance could be set as well. These could be the same as used currently for undergraduates or set at different levels for graduate students. The FAFSA and Federal Need Analysis is designed to accommodate all students. Adjustments to the results could be made as done currently for applicants for Minnesota State Grants.

- The loan forgiveness and loan repayment program is the most common form of financial aid program designed to address a workforce need. Loan repayment programs may be preferable to loan forgiveness programs, given their lower administrative overhead. Nationally, there is little data providing evidence either for or against the effectiveness of loan forgiveness and repayment programs.

- Minnesota's loan forgiveness programs are designed to provide health care professionals for rural areas, and administered by the Minnesota Department of Health, and these programs were recently evaluated as effective. These programs should be reviewed periodically to determine the effectiveness of (and need for) such programs.

- Financial aid program designed to address a workforce concerns are sometimes established as ad hoc solutions to perceived labor shortages, without consideration of the larger context of state financial aid, education and workforce policy. These kinds of programs should be created cautiously and with sunset provisions so that they do not continue beyond their useful life.

- Often a labor-market problem can be most effectively addressed through a labor-market solution, such as higher wages, improved benefits or improved working conditions.

Recommendations

There are four general recommendations that emerged from the discussions with stakeholders over the last two years. These are:

1. The State Grant model distributes the price of higher education for a student to three different parties, the student, the family and, when needed, the taxpayers. This implies that it is very important to 'get the price right'. If the two components of price – tuition plus fees and an allowance for living and miscellaneous expenses – are artificially low, the program cannot meet the goal of providing choice and opportunity for students. Policymakers should consider ways better align the price components of the State Grant framework and prices in the marketplace.

2. The Legislature expressed the overarching policy goal of the State Grant program directly in statute.

   > *"The legislature finds and declares that the identification of men and women of the state who are economically disadvantaged and the encouragement of their educational development in eligible institutions of their choosing are in the best interests of the state and of the students."*

   Student choice is a clear goal of the program. As such, the details of the program should be constructed to enhance this outcome in the future and should not favor attendance at one institution over another.

3. If a goal is the distribution of the price of higher education, then the price should be based on external and acceptable measures. The financial expectations placed on students should not be so great as to overburden them with debt repayment or work expectations that inhibit academic success. Policymakers should consider whether the burden on families (comprised of the student share and family share) is reasonable for all students with respect to their income.

4. The State Grant program should contain incentives for students to finish a college experience in a timely fashion, while recognizing the unique challenges of non-traditional students.

More specific recommendations could be provided to reflect some of the findings in this report. These would have cost implications for the General Fund. While cost estimates for specific changes are relatively easy and straightforward to produce, the options are endless, and thus policy guidance is needed.

With completion of this extensive analysis, the Office of Higher Education will continue to assess the responsiveness of the State Grant program to the needs of all students in a changing economy.

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Overview of the Minnesota State Grant Program

Minnesota State Grant Review

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Dr. Gerald Setter died unexpectedly in 2008 after completing most of the in-depth analysis reflected in this report. The Office of Higher Education is grateful for his thoughtful insight, hard work and nearly 30-year commitment to public service.

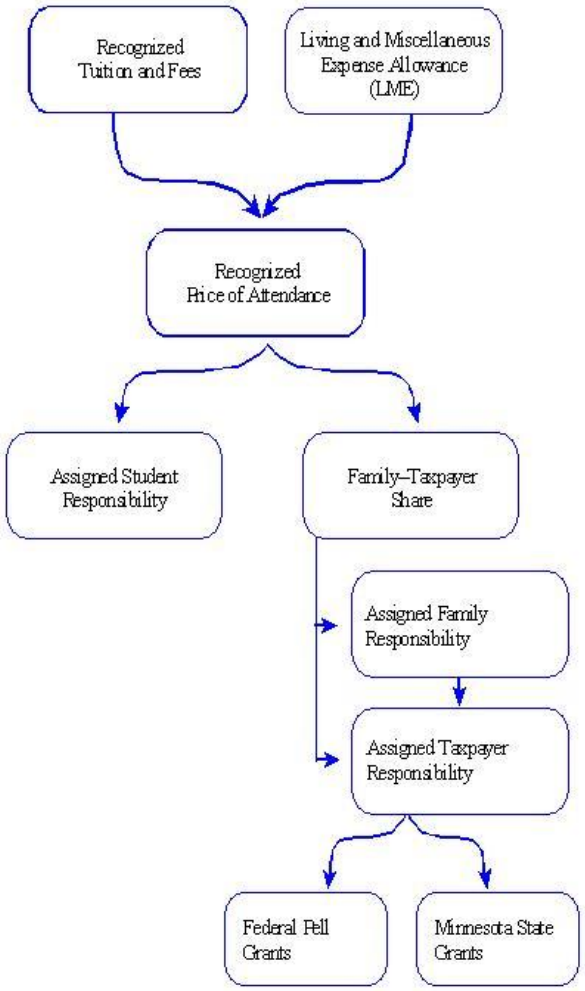
Introduction

Current Minnesota State Grant policy has been based on the Design for Shared Responsibility since 1983.[1] It builds on the work done by the Carnegie Commission on Policy Studies in Higher Education.[2] The State Grant policy assigns responsibility for paying for college to undergraduate students, to their families and, if necessary, to state and federal taxpayers. The conceptual design of the program provides a policy framework for responding to changes in tuition and fees and living expenses faced by students. Students determine the price of their postsecondary educations by their choice of institution and whether to attend full or part time.

Current Minnesota State Grant policy distributes the price of postsecondary education among students, families and taxpayers, as shown on the chart to the right.

- Minnesota expects *students* to make a significant personal investment in their own postsecondary education up front, called Assigned Student Responsibilities.
- Minnesota expects *families* to invest in their students' postsecondary education based on their ability-to-pay, called Assigned Family Responsibilities.
- Minnesota *taxpayers* invest in students by leveraging federal Pell Grants to work with Minnesota State Grants to help cover the price for families whose ability to pay does not provide full coverage of their Family-Taxpayer Share.

Design for Shared Responsibility as Applied to the Minnesota State Grant Program



[1] Created by the *Laws of Minnesota for 1983*, Chapter 258, Sections 41 and 42. Codified in *Minnesota Statutes 2006* 136a.121 subdivision 5.

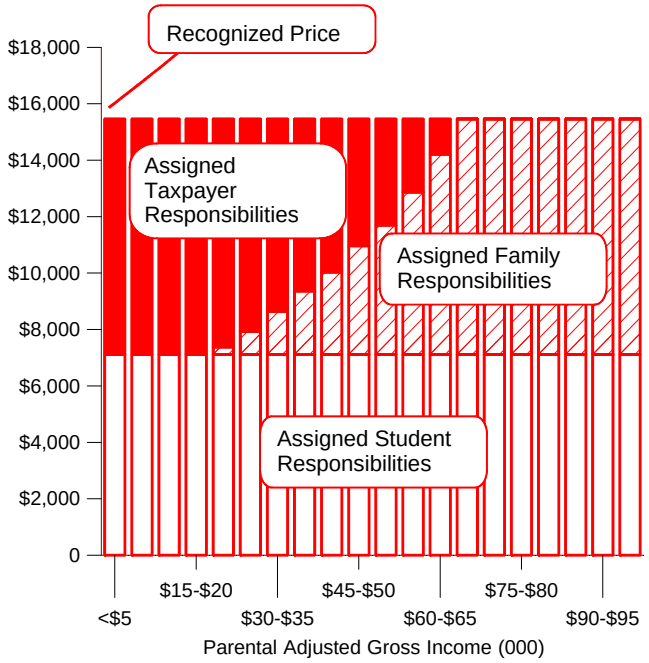
[2] Carnegie Council on Policy Studies in Higher Education (1979). *Next Steps for the 1980s in Student Financial Aid: A Fourth Alternative* (San Francisco, CA: Jossey-Bass).

The chart to the right shows how the four parts (the recognized price, Assigned Student Responsibilities, Assigned Family Responsibilities, and Assigned Taxpayer Responsibilities) fit together for typical dependent students facing a price of $15,462, the combination of Recognized Tuition and Fees and the Living and Miscellaneous Expense allowance.

State Grant policy does not describe how students and families pay for postsecondary education. It is a policy model allocating payment assignments among students, families and taxpayers.

This report describes the distribution of Recognized Price of Attendance among students, families and, if necessary, taxpayers. The report also describes the original values embedded in current Minnesota State Grant policy. The practical effect on typical students with different family incomes attending different educational institutions is also presented. Finally, the paper describes how the State Grant program has changed over the past two decades.

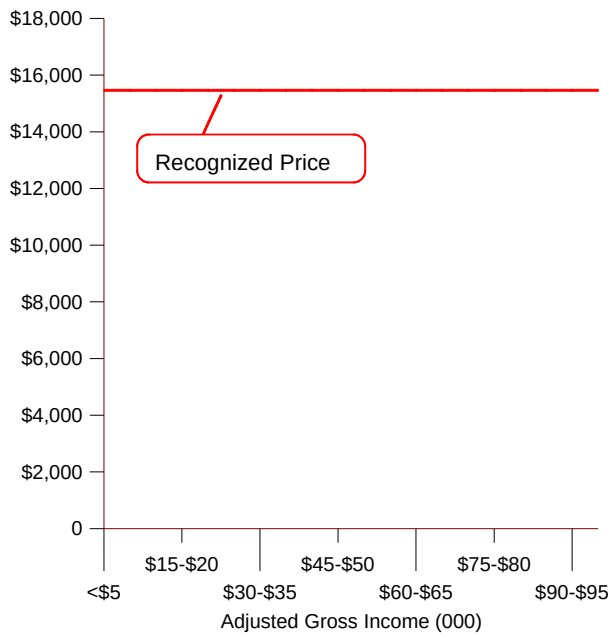
Recognized Price; Assigned Student, Family, and Taxpayer Responsibilities
Typical Dependent Students Attending the University of Minnesota, Fiscal Year 2007



Recognized Prices

Minnesota State Grant policy begins with recognized prices.[3] Recognized prices vary by the institution students select and their registration loads. Recognized Prices define the total amount assigned to students, families and taxpayers program. Recognized Prices include two components Recognized Tuition and Fees and Living and Miscellaneous Expenses.

Recognized Price
Typical Students Attending the University of Minnesota, Fiscal Year 2007



1. Recognized Tuition and Fees

Recognized tuition and fees used to calculate Minnesota State Grants are defined as the lesser of:

- Average tuition and required fees paid by resident undergraduates registering for full-time loads.[4]
- Tuition and Fee Maximums set as part of the state's appropriations process.

The average posted tuition and fees and the corresponding average recognized values used to calculate Minnesota State Grants for Fiscal Year 2007 were:

Institutional Grouping	Posted Tuition and Fees	Recognized Tuition and Fees	Difference
MnSCU 2-year Colleges	$4,252	$4,252	$0
MnSCU 4-year Universities	$5,955	$5,955	$0
University of Minnesota	$9,448	$9,397	$51
Minnesota Private 2-year Institutions	$11,625	$6,349	$5,276
Minnesota Private 4-year Institutions	$19,476	$8,547	$10,929

[3] *Minnesota Statutes 2006* 136a.121 subdivision 6.

[4] This was changed during Fiscal Year 2003 to be actual tuition and fees charged by the institution attended based on the student's course load. This change was rescinded starting in Fiscal Year 2004.

The amounts in the table were the average prices for resident undergraduates registering for 15 credits per semester for two semesters (or equivalent). Posted and recognized tuition and fee values are weighted means, based on the number of applicants attending each institution. In Fiscal Year 2007, applicants enrolled in programs leading to a baccalaureate degree were subject to a Maximum of $9,438, called the four-year Tuition and Fee Maximum; all other applicants were subject to a Maximum of $6,436, called the two-year Tuition and Fee Maximum.

2. Living and Miscellaneous Expenses

The Living and Miscellaneous Expense allowance used in calculating of Minnesota State Grants recognizes goods and services directly associated with attending, such as room, board and books. For students attending any institution, these expenses increase the price of attending. The LME amount, which is set by state lawmakers, is the same for all students for purposes of calculating Minnesota State Grants. The LME used in calculating Minnesota State Grants is set for each fiscal year in the state's appropriations process. The LME value used in Fiscal Year 2007 was $6,065.

3. For Students Registering for Less Than 2 Semesters or Less Than 15 Credits per Term, the Recognized Price Is Prorated

Current Minnesota State Grant policy recognizes differences in prices students pay by:

- Calculating awards each term of attendance ensuring students attending part-year are treated differently than students attending for longer periods.

- Prorating recognized prices for registration loads less than 15 credits per term.[5]

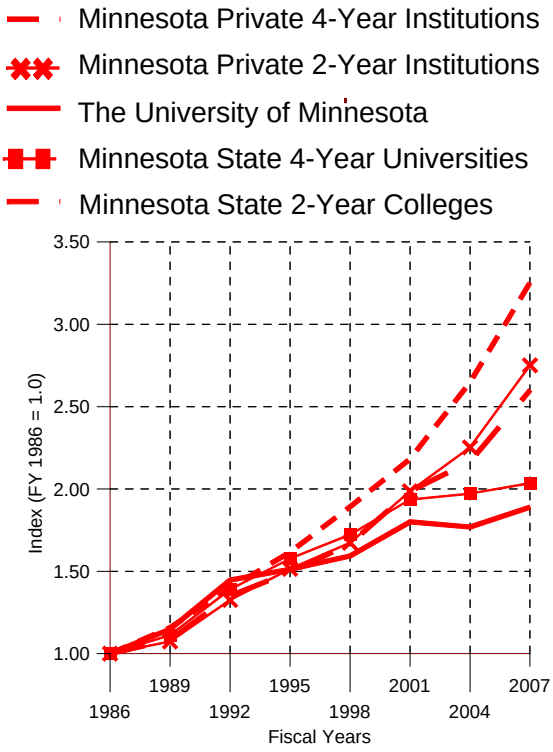
[5] *Minnesota Statutes 2006* 136a.121 subdivision 6.

4. Change in Recognized Prices

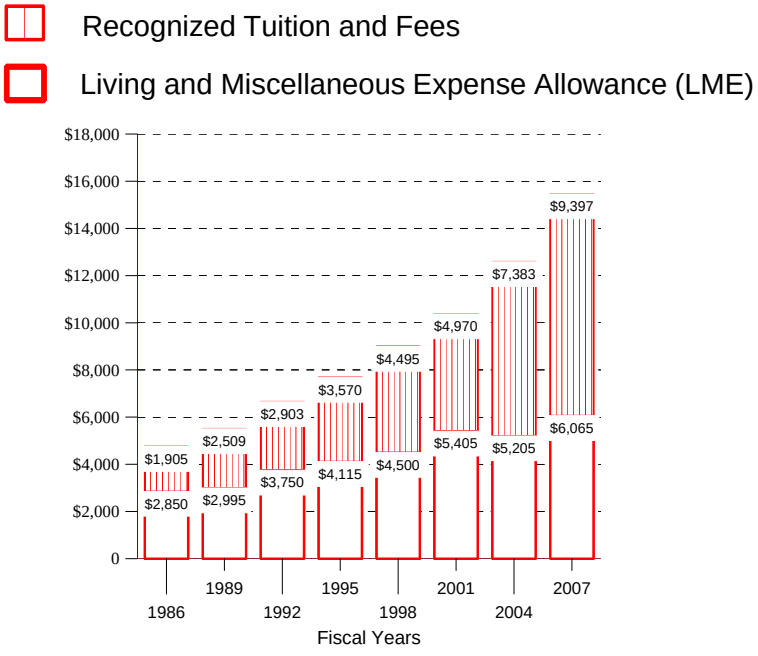
Recognized prices used in calculating Minnesota State Grants are the sum of the recognized tuition and fees at the institution attended and the LME. Recognized prices increased 90 to 225 percent between Fiscal Years 1986 and 2007, as shown on the upper panel to the right. The growth in recognized prices in for private institutions has been limited by the Tuition and Fee Maximums.

The Recognized Prices shown in the upper panel serve as the starting point for reporting changes in the distribution of prices among students, families and taxpayers from 1986 to 2007 in the remainder of this report. These are based on the prices charged to students registered for 15 credits per term for two semesters. The lower panel disaggregates the changes into recognized tuition and fees and the LME for typical students attending the University of Minnesota. The charts on the next page show the same information for the other four institutional groups.

Recognized Prices Increased 90% to 225% Between Fiscal Years 1986 and 2007



Recognized Prices Increased at the University of Minnesota

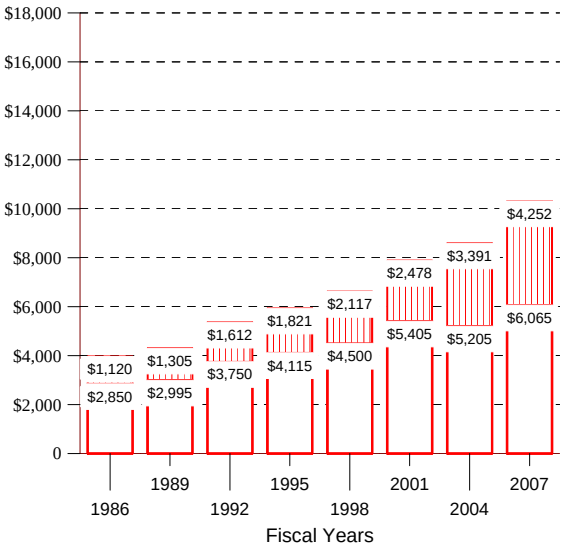


Recognized Prices Increased for All Institution Groups, Fiscal Years 1986-2007

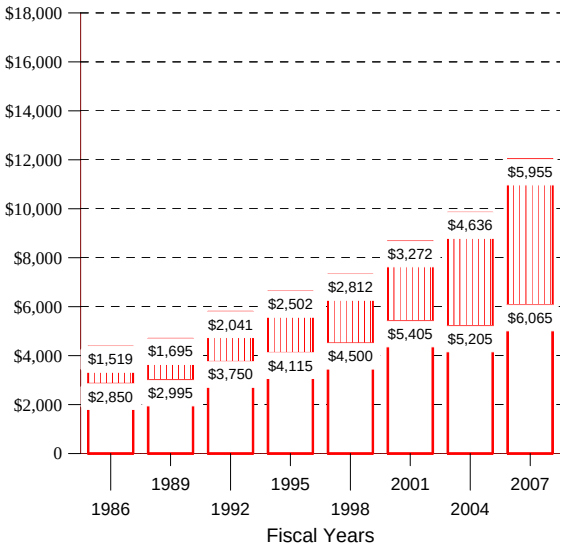
Recognized Tuition and Fees

Living and Miscellaneous Expense Allowance (LME)

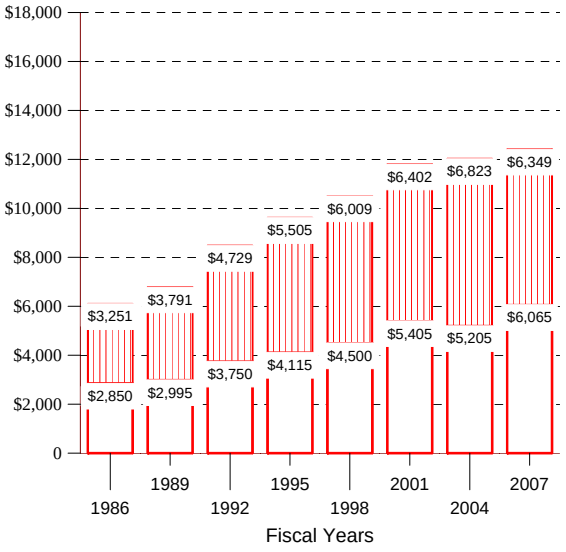
MnSCU 2-year Colleges



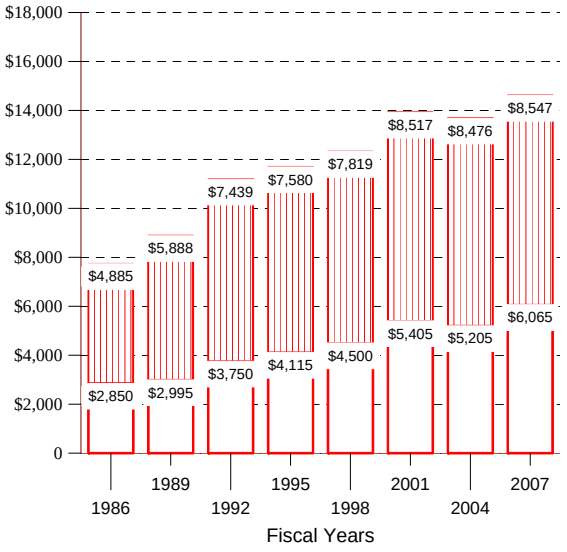
MnSCU 4-year Universities



Minnesota Private 2-year Institutions



Minnesota Private 4-year Institutions



Student Assignments

Current Minnesota State Grant policy assigns students responsibility for paying part of the Recognized Price of attendance first, as shown on the chart to the right. Currently, Assigned Student Responsibilities are set by the Legislature at 46 percent of the recognized price.[6]

Students are expected to make an investment in their own educations.[7] Assigning students financial responsibility first recognizes that students are the primary beneficiaries of their education.

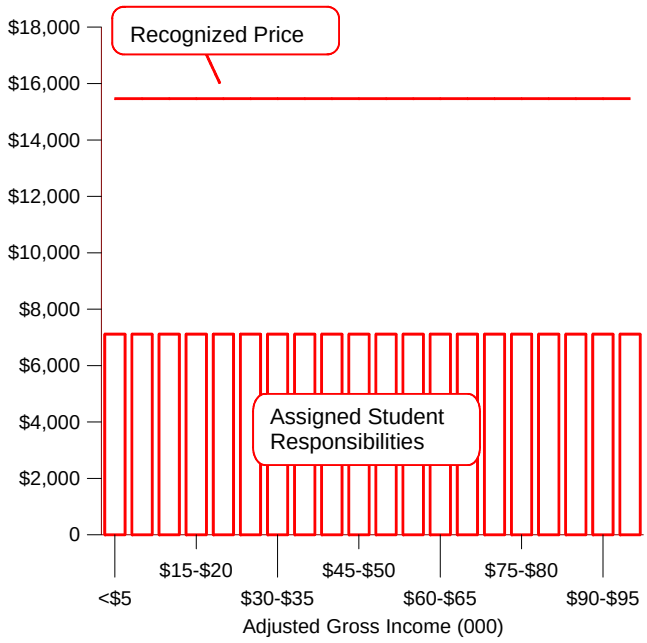
Students can make this investment with past, current and future incomes as well as financial contributions from other sources.

Current Minnesota State Grant policy embodies the following values by assigning a share of the Recognized Price of Attendance to students.[8]

Assigned Student Responsibilities

Recognized Price and Assigned Student Responsibilities

Typical Students Attending the University of Minnesota, Fiscal Year 2007



- Students should consider price in making institutional and registration choices; students choosing higher priced institutions are expected to invest more in their own education.
- Students will make better educational choices when they invest their own money.
- Students are in the best position to determine if the benefits and financial returns from postsecondary investments will meet or exceed the price of their investments over the long run.
- Students are expected to decide for themselves if they are ready and able to commit the time and energy required to obtain a postsecondary education.

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[6] *Minnesota Statutes 2006* 136a.121 subdivision 5.

[7] Benefits received is one of two principles commonly used to evaluate tax policies. The other is ability to pay. The gasoline tax is an example of a tax based on the benefits received principle. The more an individual drives (uses highways), the more gasoline purchased and the more taxes paid. Assigned Student Responsibilities conform to the benefits received principle in that the more education students purchase, the more benefits they receive over their lifetime.

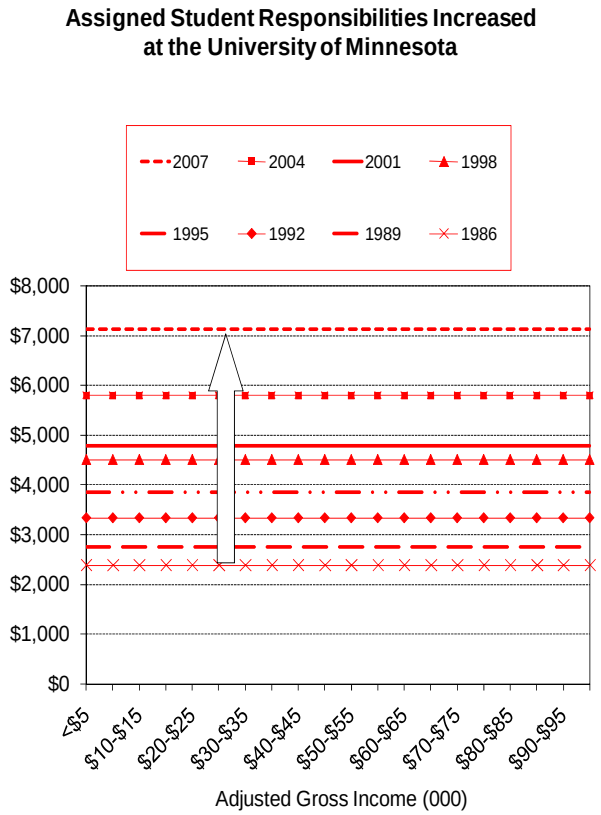
[8] See Carnegie Council (1979), especially pages 6, 26 and 27.

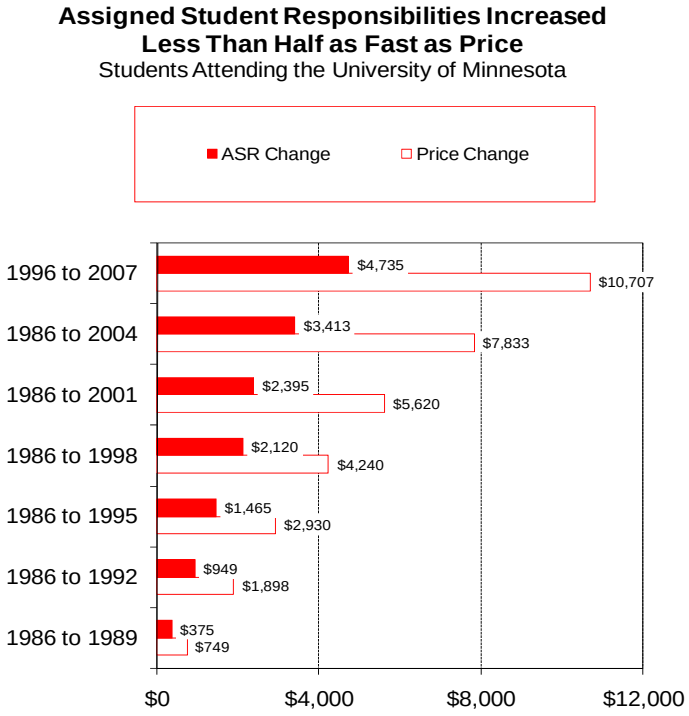
Research has shown that most students will receive a positive return on their investment in postsecondary education.[9] What is unknown is the future financial return to an individual at the time of attendance. Assigned Student Responsibilities are set at the same amount for all students facing the same price. Assigned Student Responsibilities vary directly with recognized prices: as prices increase, assigned student responsibilities increase.

- Assigned Student Responsibilities do not vary based on the income of applicants or their families.

- Assigned Student Responsibilities have been increasing over time in response to increasing prices, as shown for typical students attending the University of Minnesota.

Assigned Student Responsibilities increased less than half as much as recognized prices.





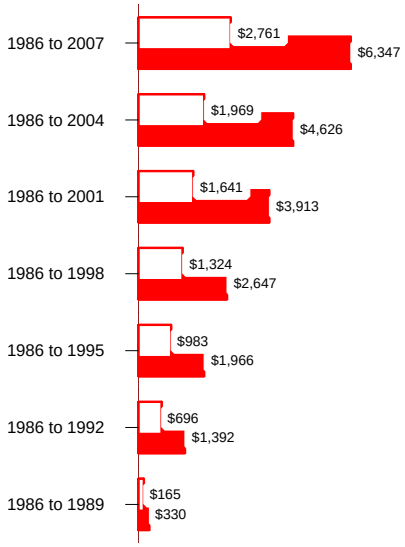
[9] Source: Pedro Carneiro and James J. Heckman (2003) "Human Capital Policy" in James J. Heckman and Alan B. Krueger, *Inequality in America* (Cambridge, MA and London: MIT Press), p. 151. Also, cited in Pedro Carneiro & James J. Heckman (2003) "Human Capital Policy" IZA Discussion Paper 821, p .42 [Accessed at IZA.org (June 18, 2007)].

Assigned Student Responsibilities Increased Less Than Half as Fast as Recognized Prices

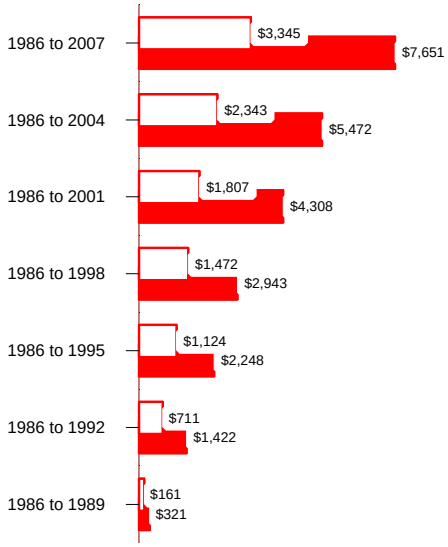
Change in Assigned Student Responsibilities

Change in Recognized Prices

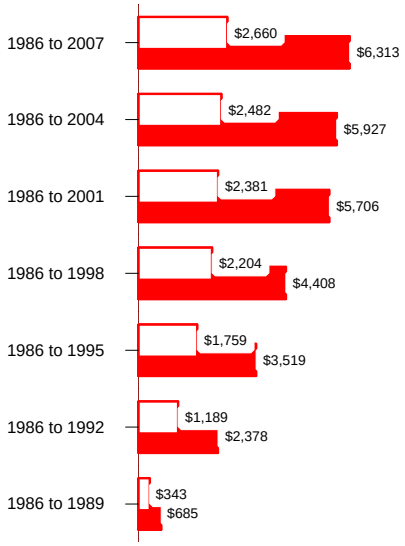
MnSCU 2-year Colleges



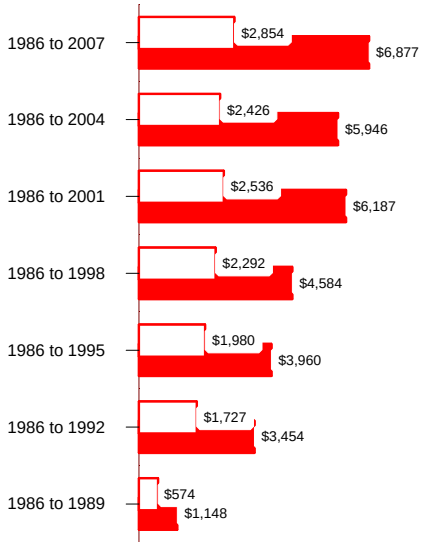
MnSCU 4-year Universities



Minnesota's Private 2-year Institutions



Minnesota's Private 4-year Institutions



Family-Taxpayer Assignments

After students, Minnesota State Grant policy assigns the remaining portion of the recognized price to students' families and, if necessary, to taxpayers.

The size of the Family-Taxpayer Share is derived from the Recognized Price minus Assigned Student Responsibility. Family-Taxpayer Shares are constant across incomes for students facing the same price, as shown in the panel 1 on the next page for typical students attending the University of Minnesota. Family-Taxpayer Shares have been increasing in all institution groups, as shown in panel 2.

Since Fiscal Year 1986, Family-Taxpayer shares grew at rates ranging from 104 to 252 percent, as shown on the panel 3 on the next page. From Fiscal Year 1986 through Fiscal Year 1998, Family-Taxpayer Shares grew about as fast as incomes.

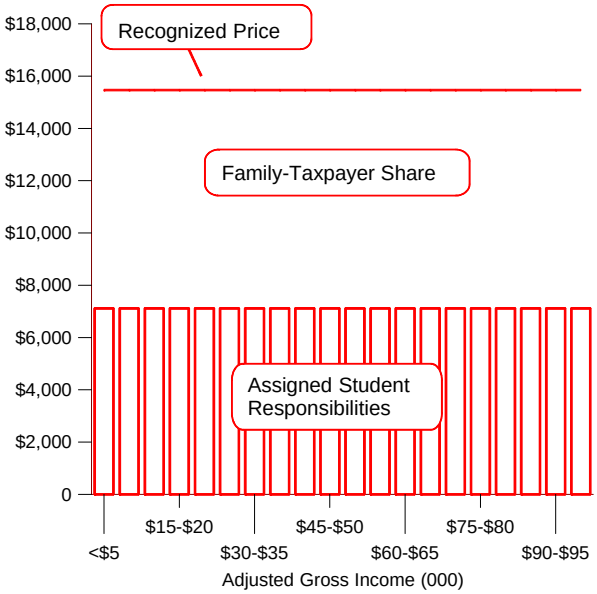
Since Fiscal Year 1998, Family-Taxpayer Shares for students attending public institutions have grown faster than family income. Family-Taxpayer shares for students attending private institutions grew more slowly than family income, due the tuition and fee maximums, which cap the price. Median income for four-person families in Minnesota was used as the measure of family income. It increased from about $37,000 to about $80,000, an increase of roughly 119 percent between 1986 and 2007.[10]

If all families were expected to finance the entire Family-Taxpayer Share, lower income families would have to exert greater financial efforts, as shown on the panel 4 on the next page. At $5,000 adjusted gross income, Family-Taxpayer Shares based on the typical University of Minnesota price in Fiscal Year 2007 would have been about 167 percent of income. At $100,000 adjusted gross incomes, Family-Taxpayer Shares would have been about eight percent of income.

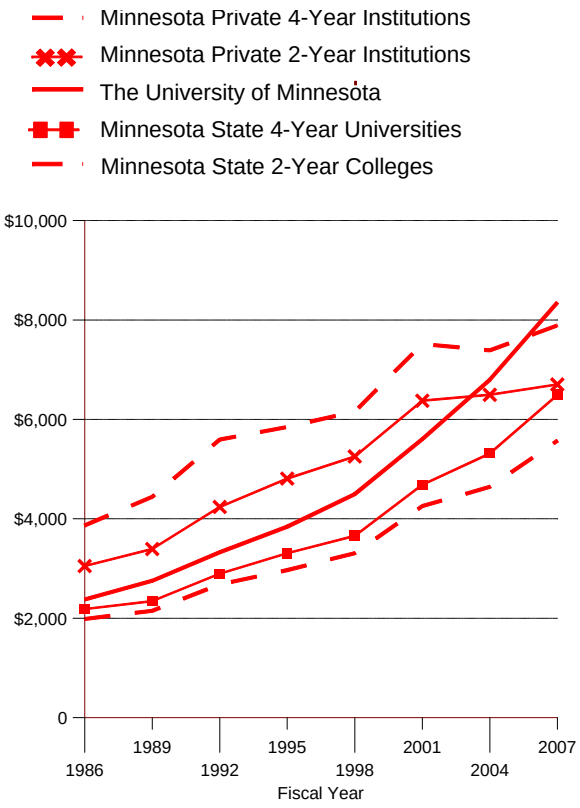
[10] This is the measure used by the U.S. Department of Health and Human Services to determine housing affordability.

1. Recognized Price, Assigned Student Responsibilities, and Family-Taxpayer Share

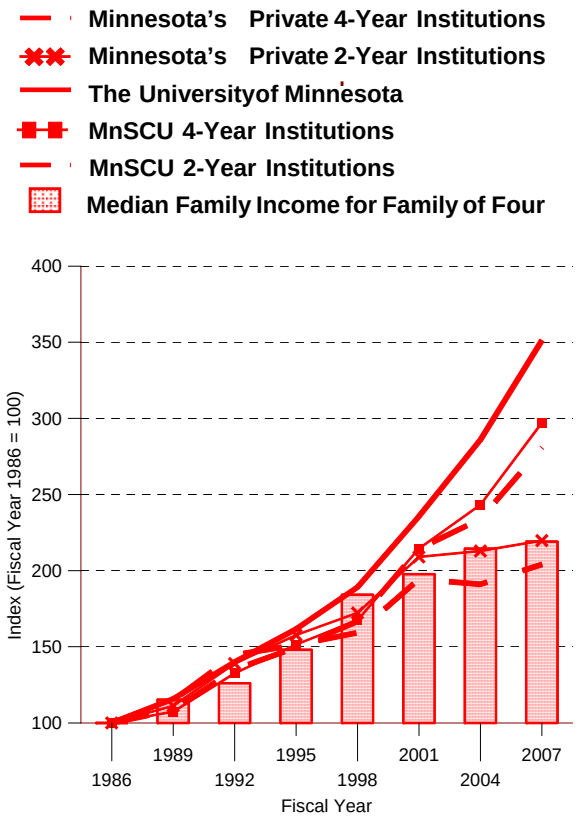
Typical Students Attending the University of Minnesota, Fiscal Year 2007



2. Family-Taxpayer Shares

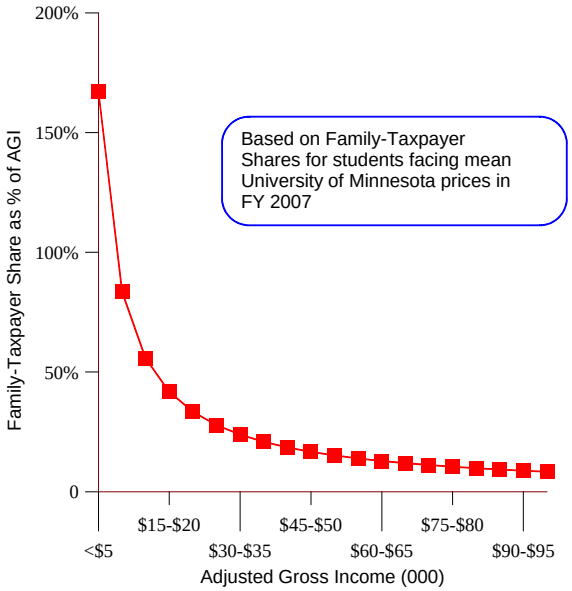


3. Family-Taxpayer Shares Relative to Income



4. Family-Taxpayer Share as a Percent of Income

Typical Dependent Students Attending Minnesota State Colleges, Fiscal Year 2007



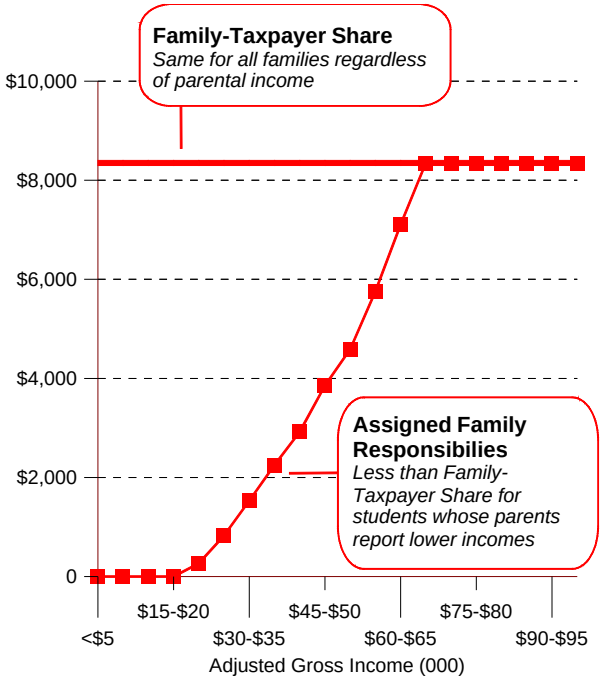
Assigned Family Responsibilities

Minnesota State Grant policy is built on the principle that families are assigned a share of the price based on their ability to pay. Assigned Family Responsibilities are designed to reflect the financial and household situations of applicants' families. As family incomes and net worth increase, Assigned Family Responsibilities increase.

State Grant policy embodies the following principles by assigning a share of the recognized price of attendance to families:[11]

- Family income and net worth are appropriate measures of ability-to-pay for the postsecondary education of family members.
- Families benefit from educated family members.
- Families will accept their financial responsibilities, and if they do not, the responsibility falls to the student and not to taxpayers, colleges or anyone else.

Assigned Family Responsibilities and Family-Taxpayer Share
Typical Dependent Students Attending the University of Minnesota, Fiscal Year 2007



In order to determine the ability to pay, Minnesota coordinates with the federal student aid application process. Minnesota applicants and their families fill out the same form for federal and state grants, the Free Application for Federal Student Aid.[12] The federal government, using the Federal Need Analysis, assesses family incomes and net worth reported on the FAFSA.[13] The results of the Federal Need Analysis are what the federal government expects families to pay for postsecondary education, known as the Expected Family Contributions. The federal government uses these results to determine federal Pell Grants, federal Stafford Loan subsidies and other federal financial aid amounts.

[11] See Carnegie Council (1979), especially pages 160-163.

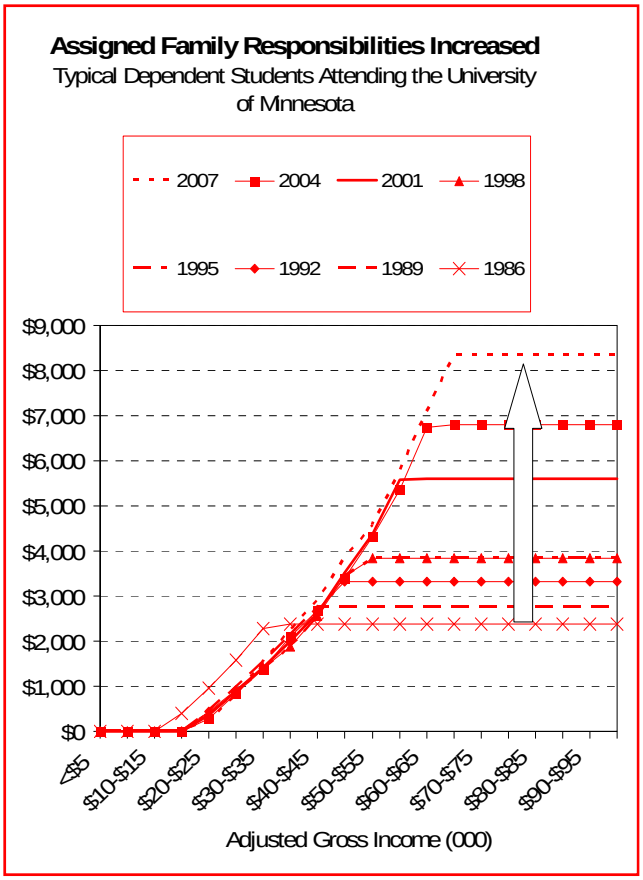
[12] *Minnesota Statutes 2006* 136a.101 subdivision 5a.

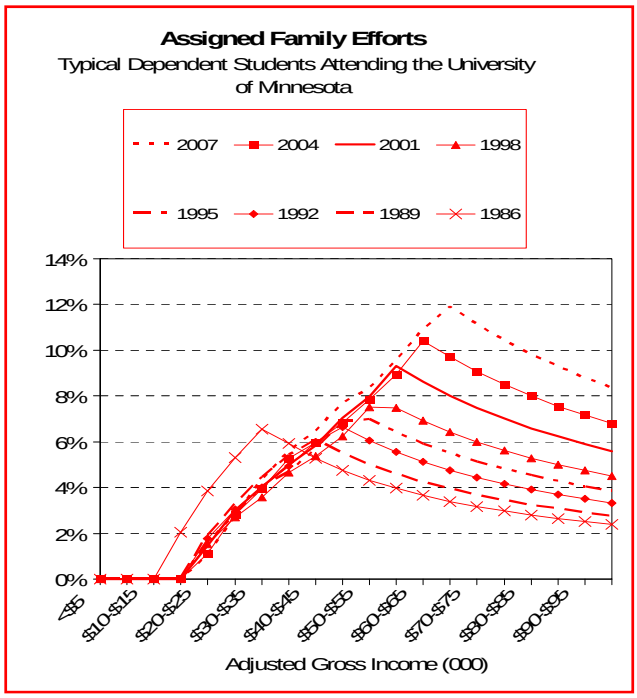
[13] The Federal Need Analysis is defined by the federal government in Title IV of the Higher Education Act of 1965, as amended.

Minnesota uses the definitions and rates in the Federal Need Analysis. Current Minnesota State Grant policy makes downward adjustments to the results of the Federal Need Analysis. Specifically, Minnesota's Assigned Family Responsibilities do not include any assessments for students' income and net worth for families with dependent students. Further, beginning in Fiscal Year 2008, Minnesota will assign 96 percent of the federal results for parents of dependent students. For independent students with dependents, Minnesota assigns 86 percent of the federal results and for independent students with no dependents other than a spouse, Minnesota assigns 68 percent of the federal results.

Families with the lowest incomes are not assigned any of the Family-Taxpayer Share as shown on the chart on this page. As incomes increase, Assigned Family Responsibilities increase as well. At some point on the income spectrum, Assigned Family Responsibilities equal the Family-Taxpayer Share. That point varies with prices since the Family-Taxpayer Share varies with prices. The higher the price, the higher the point at which the Assigned Family Responsibility equals the Family-Taxpayer Share.

Compared to the typical families shown on the chart, families with additional financial resources (untaxed income, for example) are assigned greater financial responsibilities (the Assigned Family Responsibilities line shifts up).

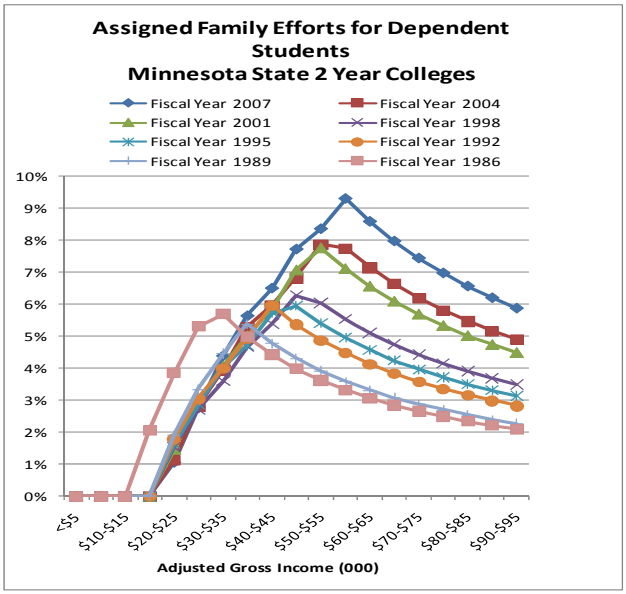


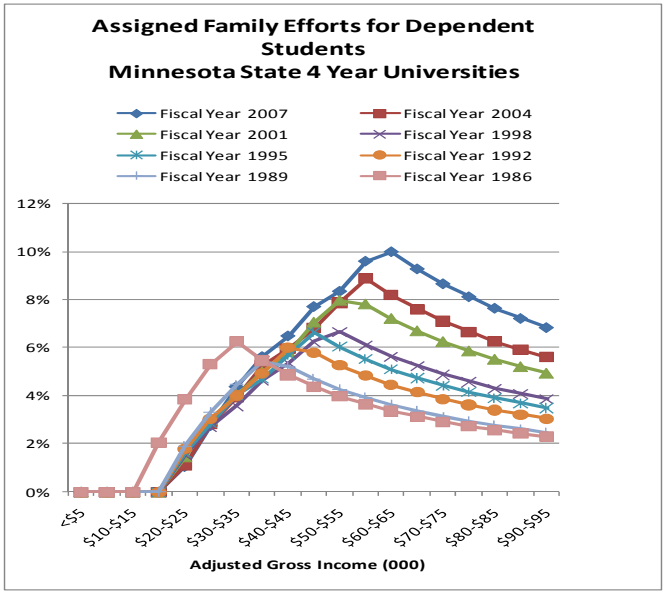


A. Change in Assigned Family Responsibilities of Parents of Dependent Students

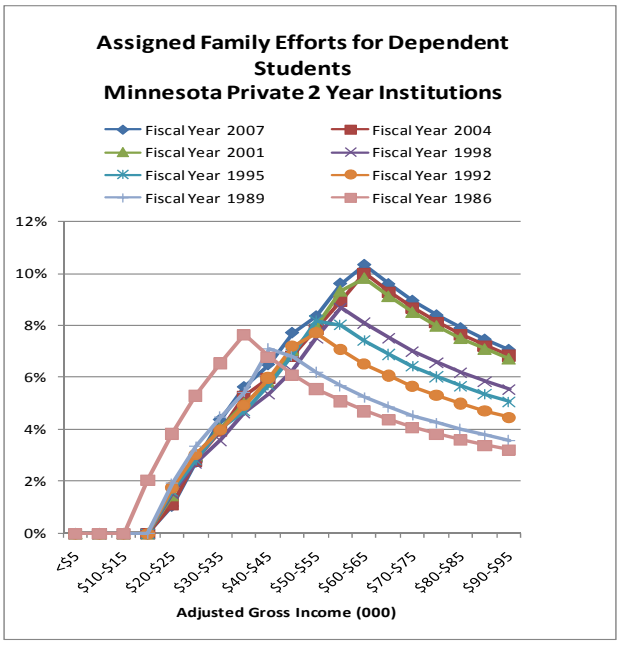
For families on the high end of the income distribution, Assigned Family Responsibilities have been increasing with price increases as shown on the first chart on the previous page. For this University of Minnesota example, the family pays 100 percent of the Family Taxpayer Share at and above an income of about $60,000 adjusted gross income at a Recognized Price of $15,462 used in the chart.

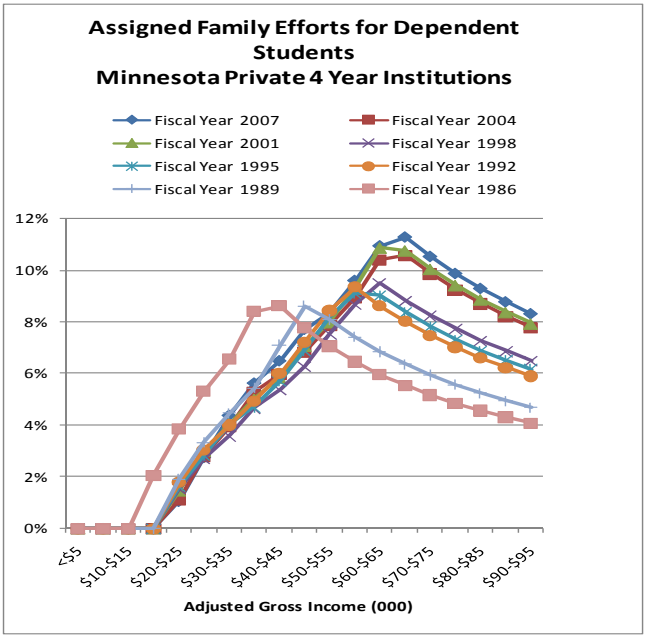
Assigned Family Responsibilities measured as a percentage of adjusted gross incomes provide an indicator of family financial effort. This relationship, called assigned family efforts, is shown on the bottom panel to the right on the previous page. The peak (high point) in the distribution of Assigned Family Efforts identifies those families who were assigned the most financial responsibility relative to their incomes. For typical dependent students attending the University of Minnesota in Fiscal Year 2007, the peak was about 12 percent for families earning about $70,000. This is up from the 1986 peak of about seven percent at incomes of about $30,000. Similar results occurred for the other price examples.[14]





[14] Assigned Family Efforts for families of dependent students is covered more fully in another paper, *Assigned Family Efforts of Families of Dependent Students*





B. Change in Assigned Family Responsibilities for Independent Unmarried Students with No Dependents

Students who meet one or more of the following criteria before enrolling are eligible to apply as independent students; otherwise, they must apply as dependent students.

- Age 24 or older;
- Married;
- Responsible for dependents based on a definition similar to that used to define dependents for purposes of claiming an exemption for federal personal income taxes;
- Veteran of military service; or
- Family relationship no longer exists due to death, estrangement, or other criteria established by the campus financial aid office.

Independent students do not have their parents' financial resources considered in the Federal Need Analysis and in determining their Assigned Family Responsibilities. The income and family characteristics of independent students (and their spouses) are evaluated instead. This practice recognizes that independent students have assumed the financial obligations of the family. As with parents of dependent students, this obligation varies according to a measure of ability to pay.

The chart on the right shows the following for unmarried independent students with no dependents:

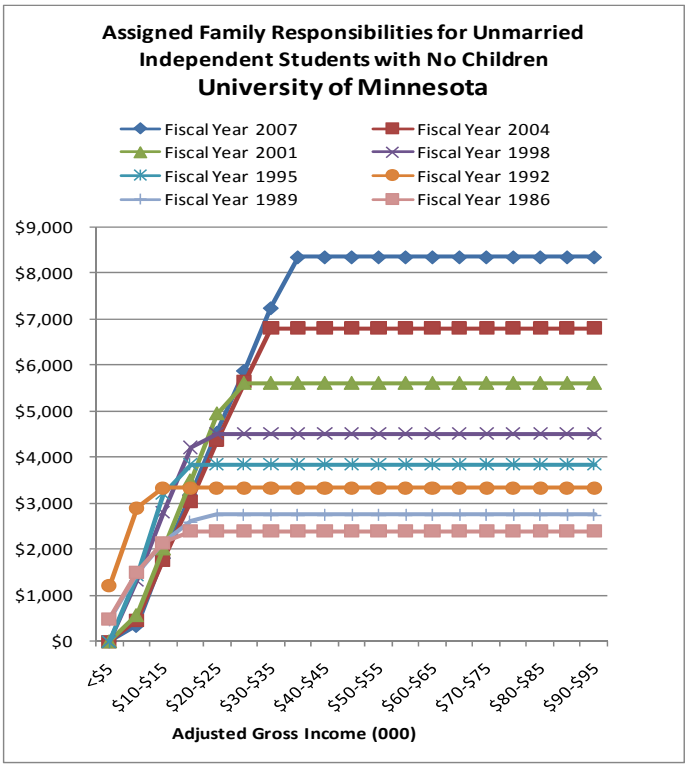
- Assigned Family Responsibilities have fluctuated for students on the lower end of the income distribution.

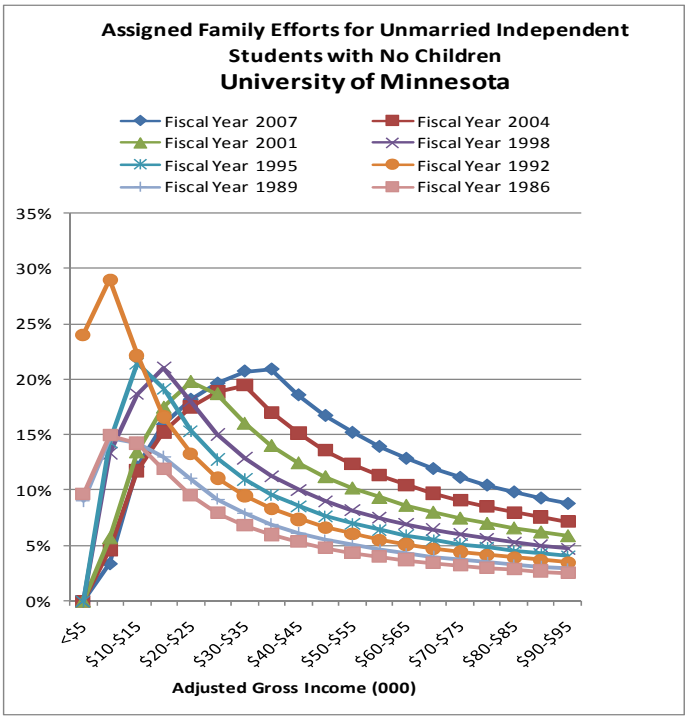
- Assigned family responsibilities have been increasing with price increases for students on the higher end of the income distribution.

Typical unmarried students with no dependents earning more than $45,000 attending the University of Minnesota in Fiscal Year 2007 were assigned the entire Family-Taxpayer Share of the recognized price of attendance, as shown on the top panel.

Assigned Family Responsibilities measured as a percentage of adjusted gross incomes provide an indicator of financial effort. This relationship is shown on the bottom panel to the right. The peak (high point) in the distribution of assigned family efforts identifies those who were assigned the most relative to their incomes.

For typical unmarried students with no dependents attending the University of Minnesota in Fiscal Year 2007, the peak was about 21 percent for those earning about $35,000. This compares with the 1986 peak of about 15 percent at incomes of about $10,000. The peak was as high as 29 percent in 1992.



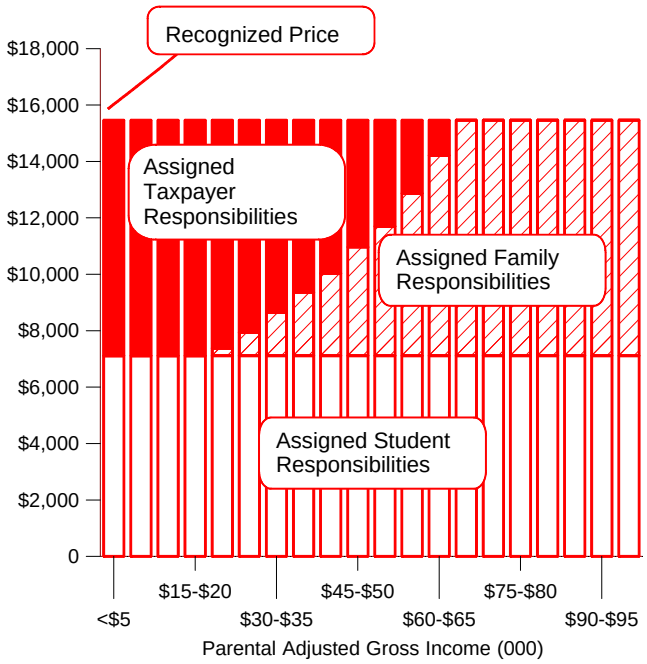


Assigned Taxpayer Responsibilities

Taxpayers are the final partners in the Minnesota State Grant policy and are responsible for any recognized price not covered by students and their families. Assigned Taxpayers Responsibilities cover any residual remaining price as shown on the chart to the right.

Federal Pell Grants, if any, are counted first in covering assigned taxpayer responsibility. Minnesota State Grants cover any remaining difference. If appropriations are insufficient to fully cover grants for all students, the Assigned Student and Family Responsibilities are increased to account for the full Recognized Price of Attendance.[15]

Recognized Price; Assigned Student, Family, and Taxpayer Responsibilities
Typical Dependent Student Attending the University



Current Minnesota State Grant policy embodies the following values in assigning a share of the recognized price of attendance to taxpayers in order to assist some, but not all, families:

- Minnesota taxpayers have a societal interest in helping finance the education of individuals from Minnesota families who lack the resources to pay all of the family-taxpayer share.

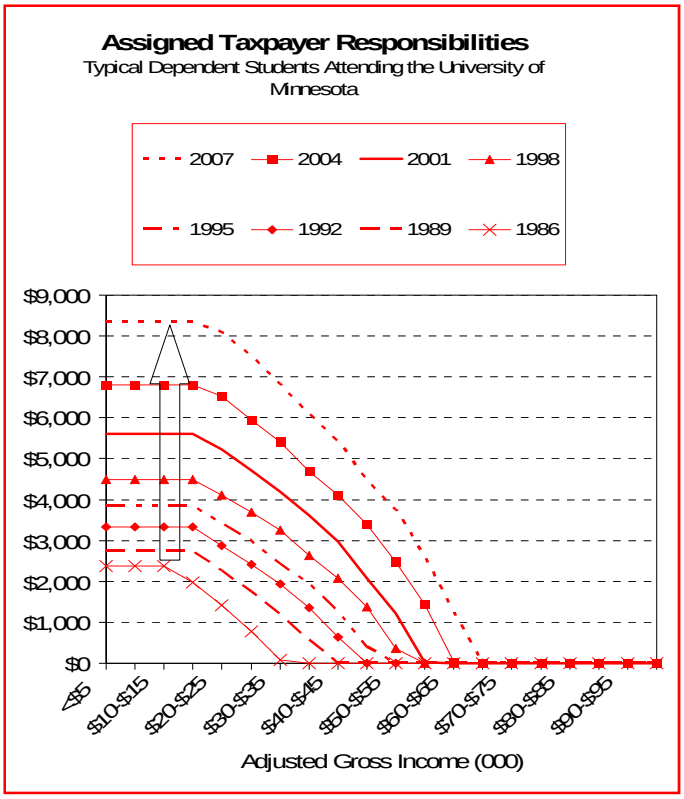
- State taxpayers are also federal taxpayers and a well constructed policy coordinates investments in students to effectively meet the program's goals.

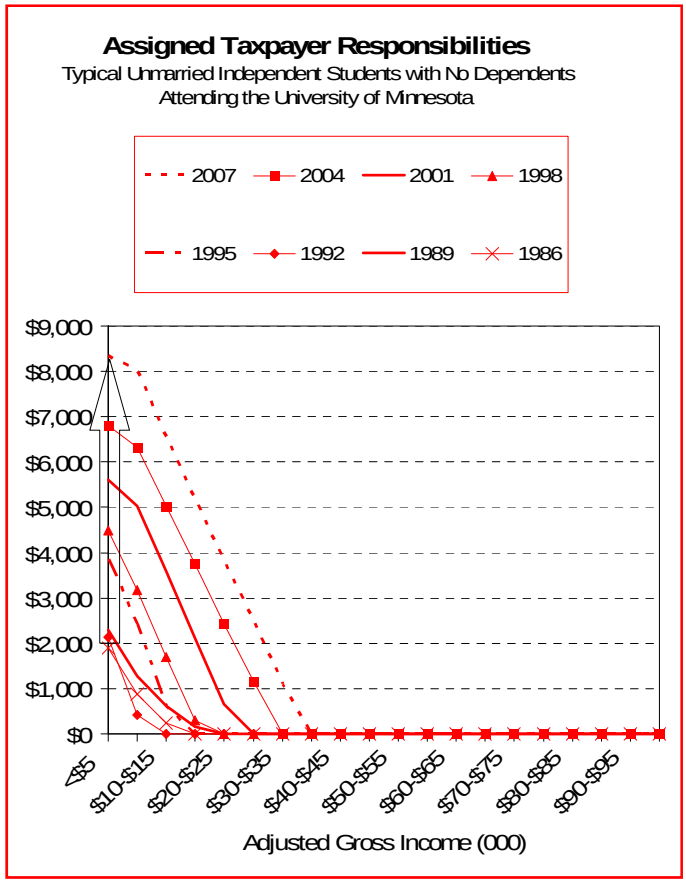
[15] *Minnesota Statutes 2006* 136a.121 subdivision 7.

Changes in Assigned Taxpayer Responsibilities are shown on the charts to the right and on the next two pages.

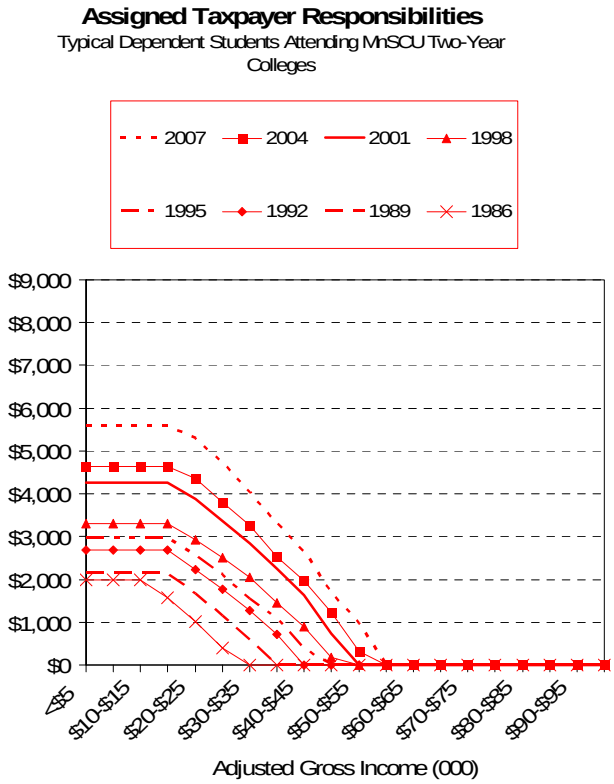
For families in the $20,000 to $25,000 income group, Assigned Taxpayer Responsibilities for typical dependent students attending the University of Minnesota increased from $2,000 to $8,085 from Fiscal Years 1986 to 2007, as shown on the top panel to the right.

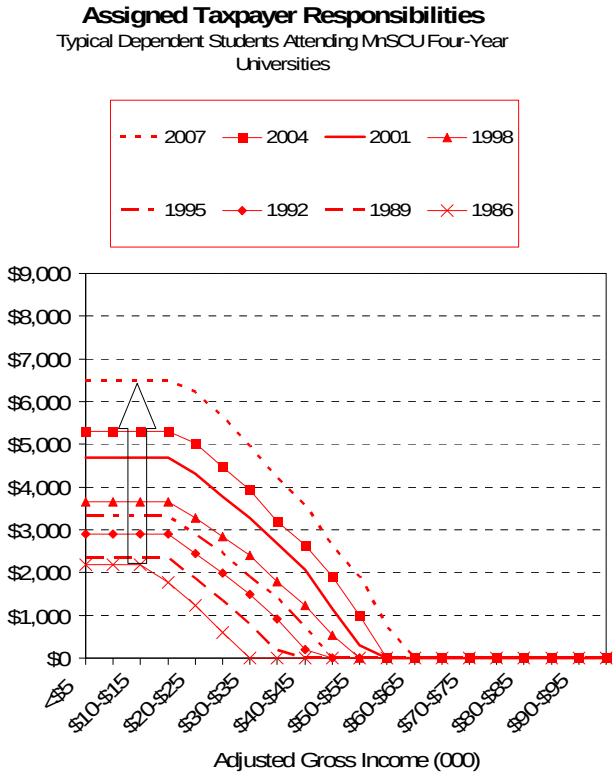
For students earning less than $5,000, Assigned Taxpayer Responsibilities for typical unmarried students with no dependents applying as independent students attending the University of Minnesota increased from $1,897 to $8,350 from Fiscal Years 1986 to 2007, as shown on the bottom panel. Similar increases have occurred for typical students attending all types of institutions, as shown on the next two pages of charts.

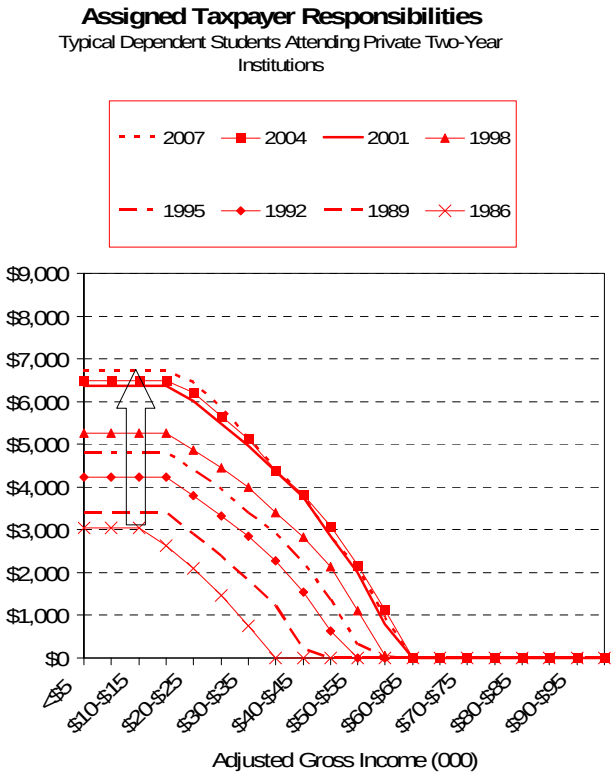


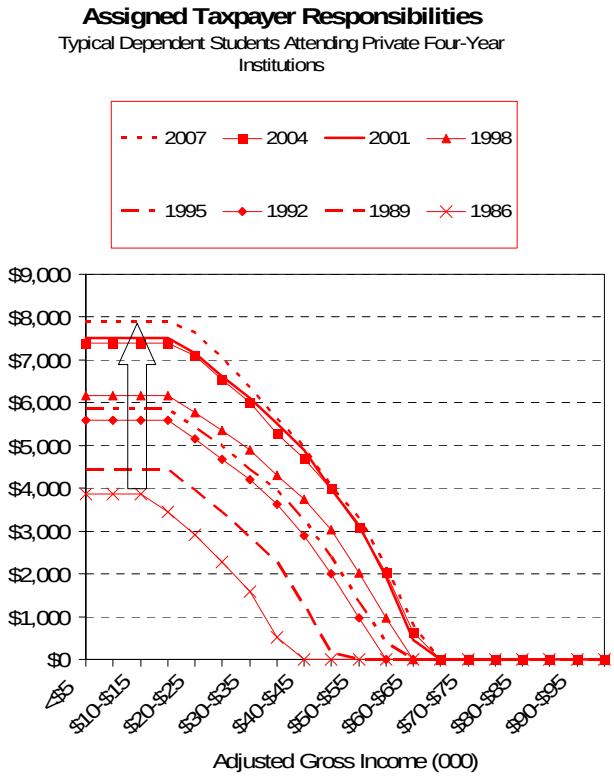


Assigned Taxpayer Responsibilities Increased for Dependent Students

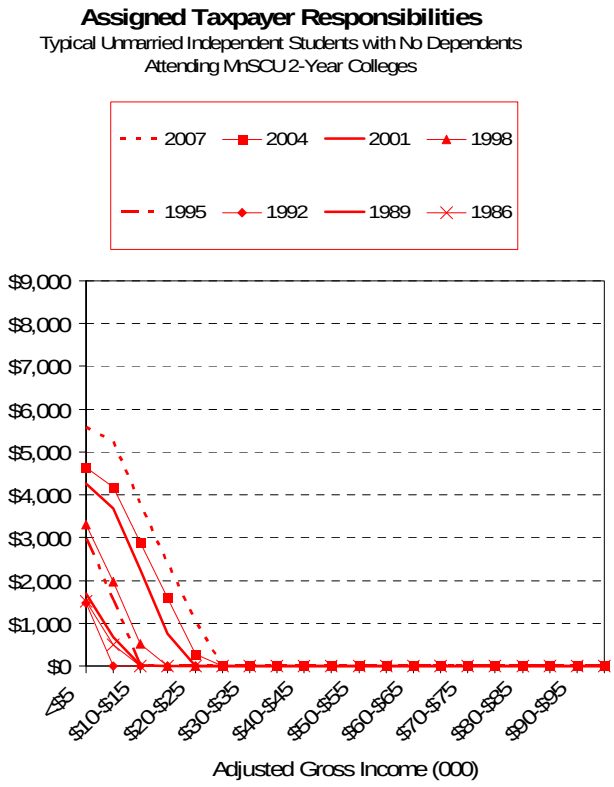


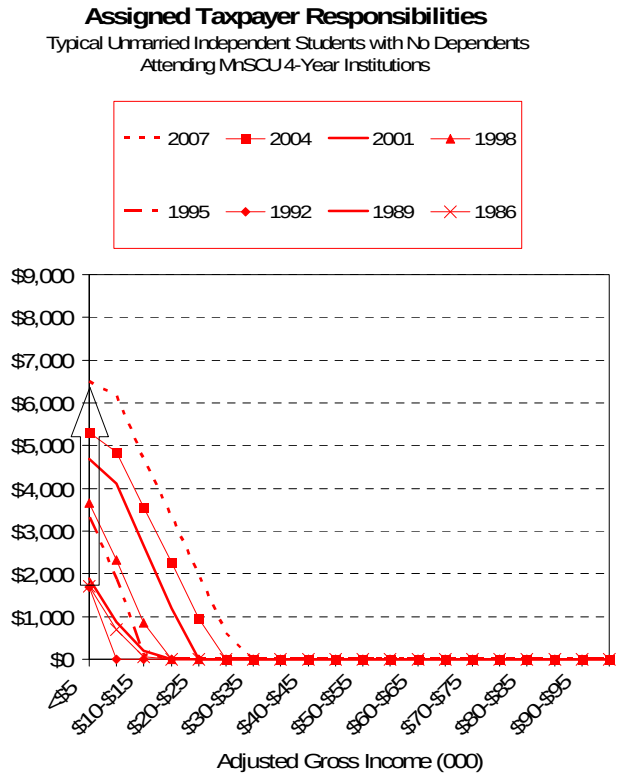


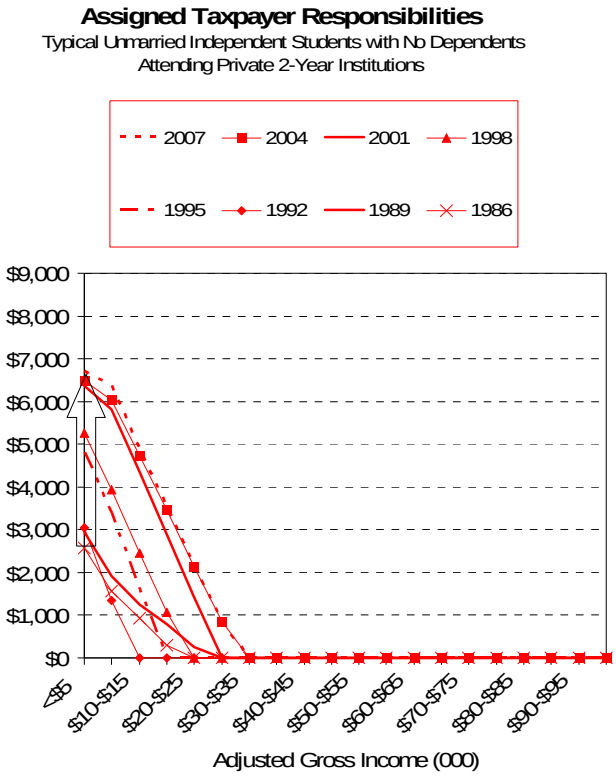


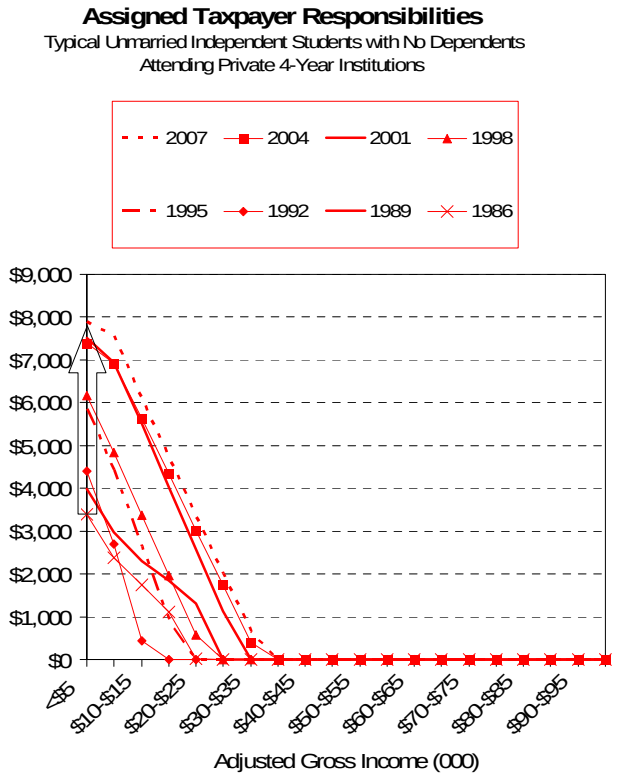


Assigned Taxpayer Responsibilities Increased for Unmarried Students with No Dependents Applying as Independent





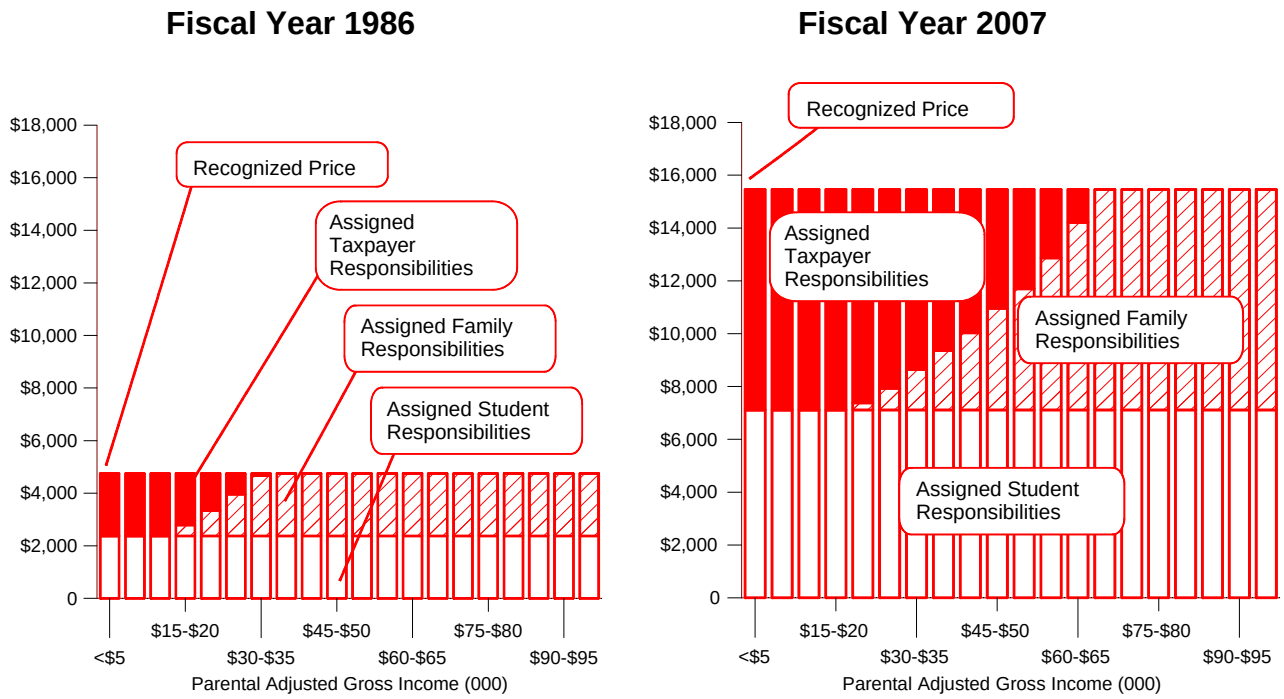




Responsiveness Over Time

In practice, the Minnesota Legislature and Governor consciously establish the responsibilities for students, families and taxpayers in the Minnesota State Grant policy. Current Minnesota State Grant policy assigns all of the recognized price of attendance to students, families and, if necessary, to taxpayers. The model is designed to respond to changes in prices, as shown below.

The Assignments of Payment Responsibilities for Typical Dependent Students Attending the University of Minnesota, Fiscal Years 1986 and 2007



- Prices increased from $4,755 to $15,462.
- Assigned Student Responsibilities increased from $2,378 to $7,113, less than half as much as prices.
- Assigned family responsibilities increased on the right side of the income distribution in response to price increases.
- Assigned Taxpayer Responsibilities increased and included a wider range of incomes.

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Overview of the Prior Model

Minnesota State Grant Review

October 2008

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Table of Contents

Dr. Gerald Setter died unexpectedly in 2008 after completing most of the in-depth analysis reflected in this report. The Office of Higher Education is grateful for his thoughtful insight, hard work and nearly 30-year commitment to public service.

Introduction

The Design for Shared Responsibility provides the policy foundation for the Minnesota State Grant program. Its development can be traced back to the Carnegie Council on Policy Studies in Higher Education (1979) recommendation for changes in federal student aid policies.

> *(The Carnegie Council proposed) that the basic building block of student financial support for postsecondary education be a substantial self-help component (which has come to be known as Assigned Student Responsibility in Minnesota). ... Family income is no longer a sufficient indication of need(.) ... Additionally, we believe that an explicit self-help component is an important aspect of developing in students a sense of responsibility for their own advancement and of encouraging a more acutely sensed necessity for prudent use of time and money (p. 6).*

Among the reasons the Carnegie Council gave for advocating self-help expectations were the following:

- "It will help meet the problems posed by the growing proportion of students declaring themselves independent of their parents and will facilitate devising equitable policies for providing assistance to needy part-time and adult students," (p. 27).

- "There is a case for student self-help in view of the economic benefits the student can normally expect from a college education," (p. 27).

- "An earnings expectation is consistent with the changing status of young people in our society. They have been granted legal majority, and they tend to achieve adult status in terms of social behavior earlier than college-age young people did in the past," (p. 27).

- "With the extension of student grants to young people from middle-income families, the relative contribution of the taxpayer, compared with that of students and parents, has been increased. An earnings expectation for all students applying for aid would redress the balance," (p. 27).

The 1983 Legislature adopted the Design for Shared Responsibility as the policy for the Minnesota State Grant program. The design was implemented as part of a package of policy changes, including:[1]

1. Average Cost Funding, the methodology used to adjust the instructional budget base for enrollment changes.
2. Uniform Cost-Related Tuition Policy.
3. Revised tuition reciprocity arrangements.
4. Management authority of governing boards clarified and strengthened.

[1] See Minnesota Higher Education Coordinating Board (1985a, p. 53).

Considerable discussion of policies and practices led to the decision to adopt the Design for Shared Responsibility. The Minnesota Higher Education Coordinating Board made its final recommendations in December 1982.[2] In their report (1982c, p. 2), the Board argued that the Design for Shared Responsibility would "more effectively target state financial aid money to students from the lowest income families. It would accomplish this by explicitly stating the relative responsibilities of institutions, students, parents and government in paying for postsecondary education." The Board (1982c, p. 2) asserted that the design would:

- Control the amount the student is expected to contribute, primarily through work and borrowing, and ensure that this expectation is the same for all students attending the same cost institution.

- Recognize the major tuition difference that exists among institutions, while asking more of students who choose higher cost options.

- Ensure that the student will contribute toward his or her education an amount that is significant but manageable.

- Recognize the impact on students of the withdrawal of federal grant dollars.

- Ration limited state grant dollars in a way that does not place the greatest burden on the poorest students.

- Recognize that borrowing has become a significant factor in educational financing.

The Coordinating Board summarized the results of the actions of the Governor and 1983 Legislature in its *Report to the Governor and 1985 Legislature* as follows:

> *The 1983 Minnesota Legislature, in approving its comprehensive package of higher education policies, adopted a major redesign of the State Scholarship and Grant Program for implementation in the 1983-1984 school year.*[3] *... The new policy, the Design for Shared Responsibility, is intended to promote the primary goal of the state's student financial aid system—to ensure equal opportunity for all Minnesota residents to pursue a post-secondary education in institutions and programs that can best meet their educational needs, regardless of their economic circumstances (p. 58).*

[2] See Minnesota Higher Education Coordinating Board (1982a), (1982b), and (1982c).

[3] *Laws of Minnesota for 1983*, Chapter 258, Sections 41 and 42.

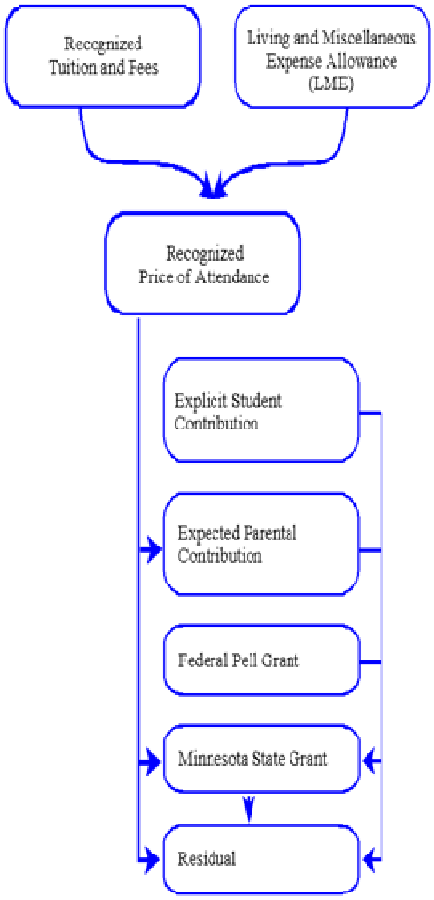
> *(The Design for Shared Responsibility) targets more financial aid money to students from lower income families than was possible previously. Over time several inequities had developed in the old policy. As a result, students from lower income families found it necessary to finance a larger proportion of their educational costs from savings, work or loans than students from higher income families attending the same institutions. This resulted from several arbitrary award caps and other rationing techniques used in response to insufficient funding (p. 58-59).*

This report explains how the Design for Shared Responsibility compares to the policy that was used in Minnesota before 1983.

The Model Used Prior to the Design for Shared Responsibility

The policy model used prior to the Design for Shared Responsibility will be referred to as the Prior Model in this report. A recognized price of attendance was the starting point in determining Minnesota State Grants in the Prior Model. The recognized price of attendance was alternatively referred to as "The Budget", "The Cost of Education" or "The Cost of Attendance". Each campus was responsible for determining the tuition and fees in the model. A standard Living and Miscellaneous Expense Allowance, determined by the state, was included in the recognized price of attendance.

The Prior Model is shown on the flow chart on this page. Charts on page C-8 apply the Prior Model to the price for typical undergraduate dependent students attending the University of Minnesota in Fiscal Year 2007.[4]



Some, but not necessarily all, of the recognized price of attendance was assigned to students, families and taxpayers in the Prior Model. All students were first assigned an explicit student contribution dollar amount as determined by the state. The explicit student contribution in Fiscal Year 1983 was $700.[5] For purposes of illustration, the explicit student contribution was doubled from its 1983 amount and applied to the price for typical undergraduates attending the University of Minnesota in Fiscal Year 2007, as shown in Panel 1 on page C-8.[6]

After students were assigned an explicit contribution, the Prior Model assigned payment responsibility to families (parents in the case of dependent students), as shown on the flow chart in Panel 2. This assignment was based on Uniform Methodology, a forerunner to today's Federal Need Analysis.

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[4] Fiscal Year 2007 values are used in this section so the results of the Prior Model can be compared to current policy.

[5] See Minnesota Higher Education Coordinating Board (1983a, p. 84).

[6] To have a contemporary picture of how the Prior Model worked, it was assumed that the explicit student contribution was doubled to $1,400 and typical students assets were not large enough to be assessed.

After students and families were assigned responsibility for the recognized price of attendance in the Prior Model, Federal Pell Grants, as shown on the flow chart and incorporated in Panels 3 and 4 on the next page, were considered.

The Minnesota State Grant award was 50 percent of the difference between the recognized price and the combination of the explicit student contribution and the expected parental contribution. If the student was projected to receive a Federal Pell Grant, the sum of the two could not exceed 75 percent of difference.[7] This resulted in combined awards as shown in Panel 3 on the next page.

Minnesota State Grants were constrained further by a maximum award of $1,050 in Fiscal Year 1983.[8] In Panel 4 on the next page, the maximum award was doubled to show a more contemporary picture of the Prior Model.

Minnesota State Grants were further rationed by reducing the recognized price to 78 percent of the calculated values in Fiscal Year 1983.[9] In the chart shown on the next page, this rationing feature was not included.

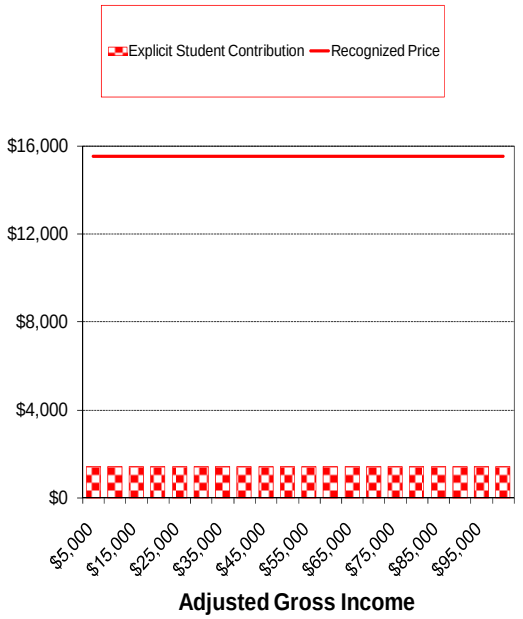
[7] See Minnesota Higher Education Coordinating Board (1983a, p. 83).

[8] See Minnesota Higher Education Coordinating Board (1982c, p. 10).

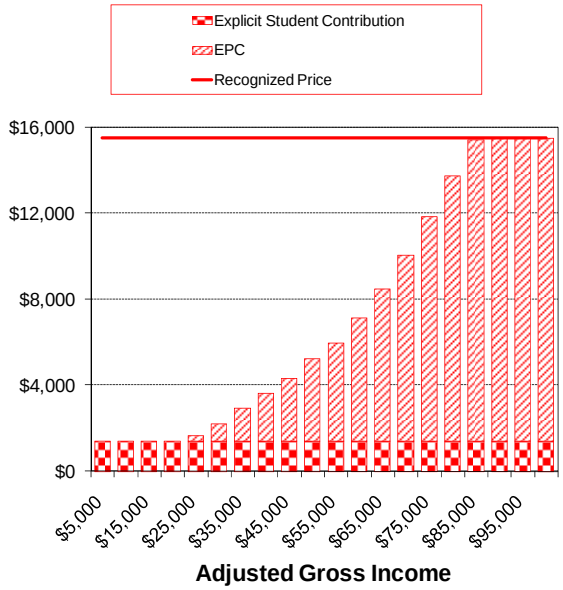
[9] See Minnesota Higher Education Coordinating Board (1982c, p. 14).

The Prior Model Assignments of Payment Responsibilities for Price of Attendance = $15,513

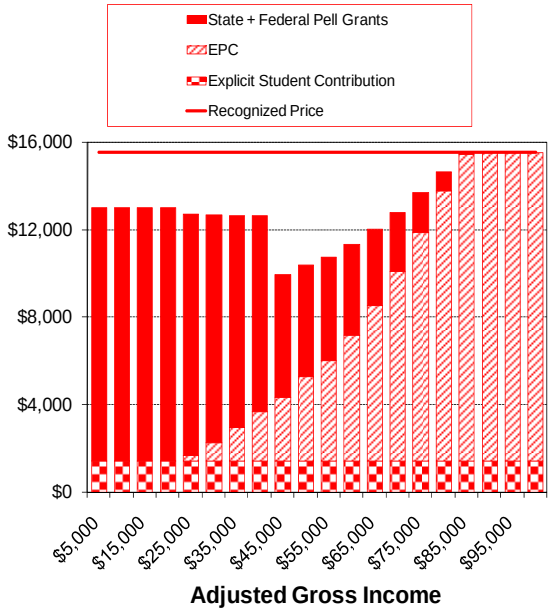
1. Explicit Student Contribution
Typical Dependent Student Attending the University of Minnesota, Fiscal Year 2007



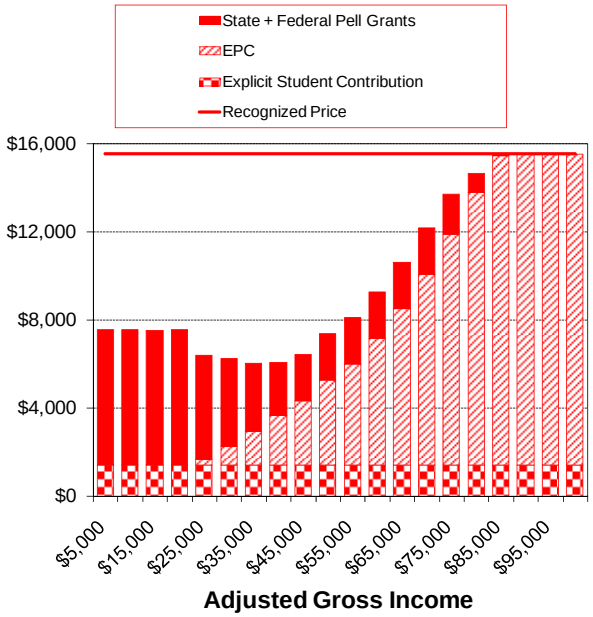
2. Addition of Expected Parental Contribution
Typical Dependent Student Attending the University of Minnesota, Fiscal Year 2007



3. Addition of Federal Pell and State (without Award Maximum) Grants
Typical Dependent Student Attending the University of Minnesota, Fiscal Year 2007

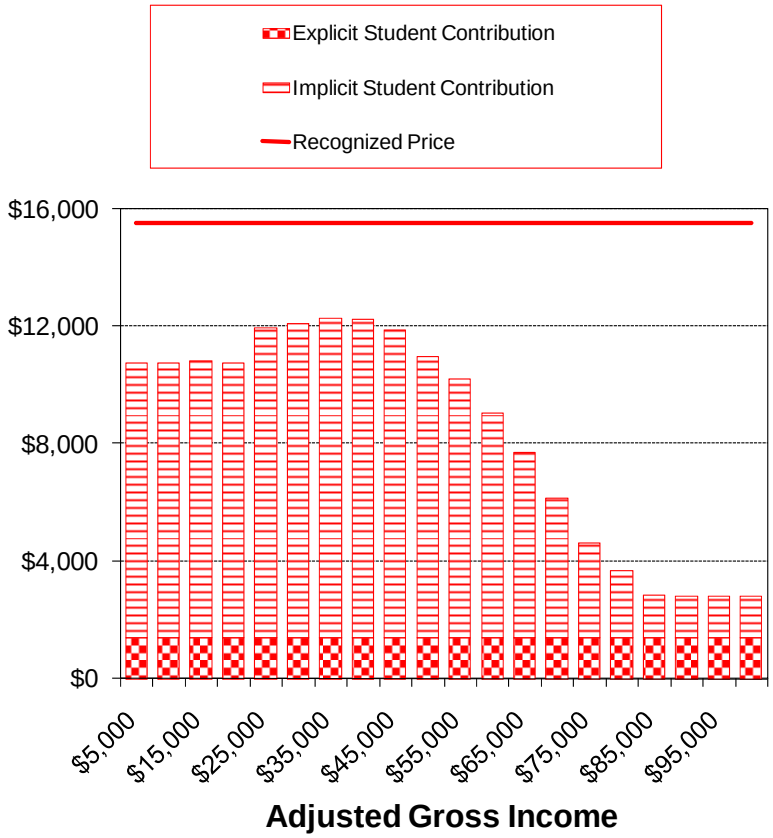


4. Addition of Federal Pell and State (with Award Maximum) Grants
Typical Dependent Student Attending the University of Minnesota, Fiscal Year 2007



In the Prior Model, students from the low end of the income spectrum were assigned the explicit student contribution and, implicitly, any residual amount. The residual amount was the difference between the recognized price and the sum of the explicit student contribution, their parent's expected contribution and their federal Pell and Minnesota State grants. The explicit student contributions and the residuals identified on Panel 4 on the previous page are shown on the chart to the right.

Implicit and Explicit Student Assignments
Typical Dependent Student Attending the University of Minnesota, Fiscal Year 2007



Effectively, the Prior Model started with a recognized price of attendance but determined payment responsibilities with little regard to price. Students were assigned an explicit amount by the state. Parents were assigned a dollar amount based on a measure of ability-to-pay and taxpayers were assigned a dollar amount through Federal Pell and Minnesota State Grants that were constrained by politically determined maximum award amounts. The sum of these assignments fell short of the recognized price of attendance for students from families on the left side of the income spectrum.[10]

Other Fiscal Year 2007 prices are shown in the following table. These are the mean reported tuition and fees for students attending institutions in each of the groups shown plus the LME used in Fiscal Year 2007.

Students Attending	Posted Tuition and Fees	Living and Miscellaneous Expense Allowance	Price
Minnesota Private 4-year Institutions	$19,476	$6,065	$25,541
Minnesota Private 2-year Institutions	$11,625	$6,065	$17,690
University of Minnesota	$9,448	$6,065	$15,513
Minnesota State 4-year Universities	$6,083	$6,065	$12,168
Minnesota State 2-year Colleges	$4,252	$6,065	$10,317

[10] The industry recognizes the pervasiveness of residuals and have labeled them, unmet need or self-help expectations.

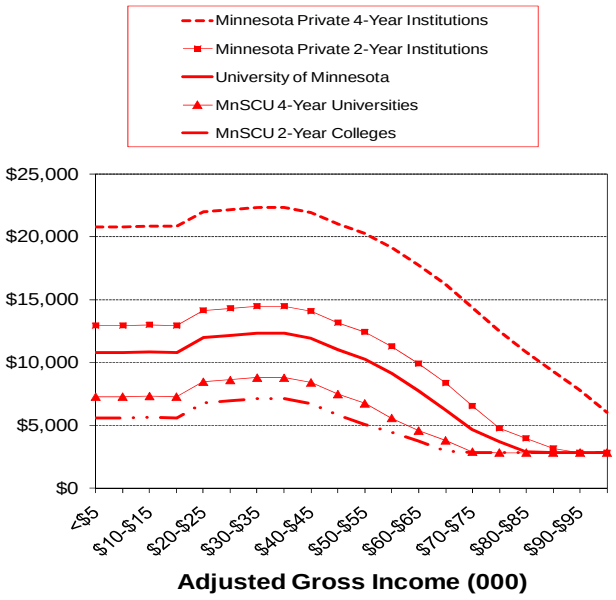
The distribution of the Fiscal Year 2007 prices to students, parents and taxpayers with the Prior Model are shown on the next page. With the Prior Model, all students from families on the left-hand side of the income spectrum, at each price level, were assigned more than students from families on the right-hand side of the income spectrum, in dollar terms (as shown on Panel 1) and as percentages of the recognize price (as shown on Panel 2). Further, as price increased, the assignments increased, in dollar and percentage terms, for students from the left-hand side of the income spectrum.

Expected Parental Contributions were equal across all prices for students from families on the left-hand side of the income spectrum, as shown on Panel 3. On the right-hand side, Expected Parental Contributions increased with recognized prices.

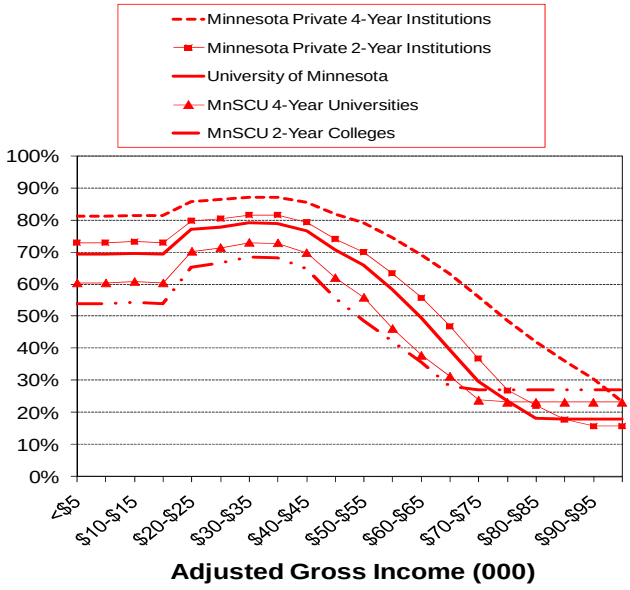
In contrast, taxpayer responsibility, under the Prior Model, did not increase as recognized prices increased for students from families on the left-hand side of the income spectrum, as shown on Panel 4. This was the result of constraining taxpayer responsibilities through maximum awards. For students from families on the right-hand side, combined Federal Pell and Minnesota State Grants increased as recognized prices increased.

The Prior Model Assignments of Payment Responsibilities across Prices of Attendance

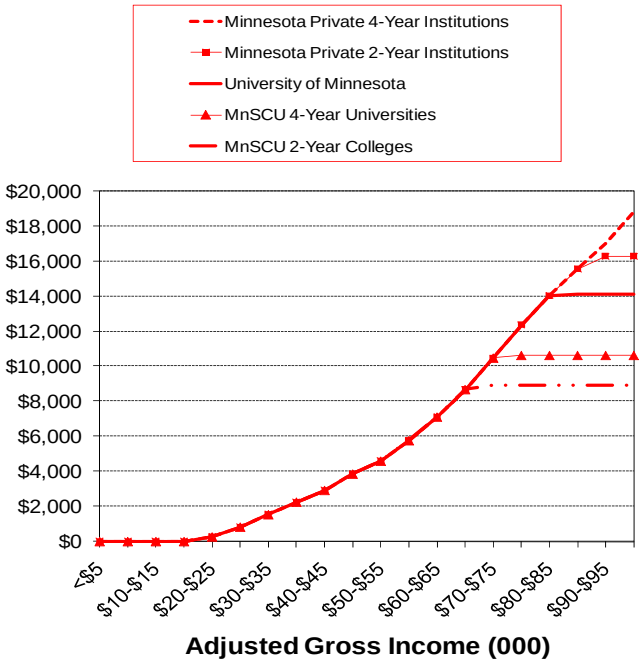
Explicit Plus Implicit Student Contributions



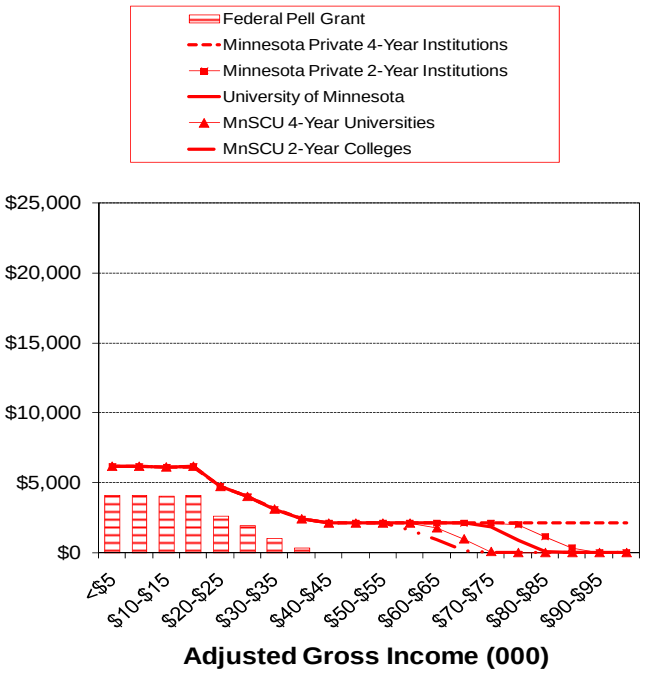
Explicit Plus Implicit Student Contributions as a Percentage of Recognized Price



Expected Parental Contributions



Federal Pell and State Grants



The Design for Shared Responsibility

Discussions leading up to the adoption of the Design for Shared Responsibility centered on the shortcomings in the Prior Model. In particular, the greater expectation of students from families on the left-hand side of the income spectrum was seen as a shortcoming.

Like the Prior Model, the Design for Shared Responsibility starts with recognized price of attendance, as described in the Overview chapter of this document. Unlike the Prior Model, the Design for Shared Responsibility limits the amount of recognized tuition and fees as an alternative to maximum awards to constrain spending. As with the Prior Model, The Design for Shared Responsibility includes a standard Living and Miscellaneous Expense allowance.

The Design for Shared Responsibility, as applied to Minnesota State Grants, distributes the recognized price of postsecondary education based on family circumstances and attendance choices among students, families, and, if necessary, taxpayers, as described in the Overview.

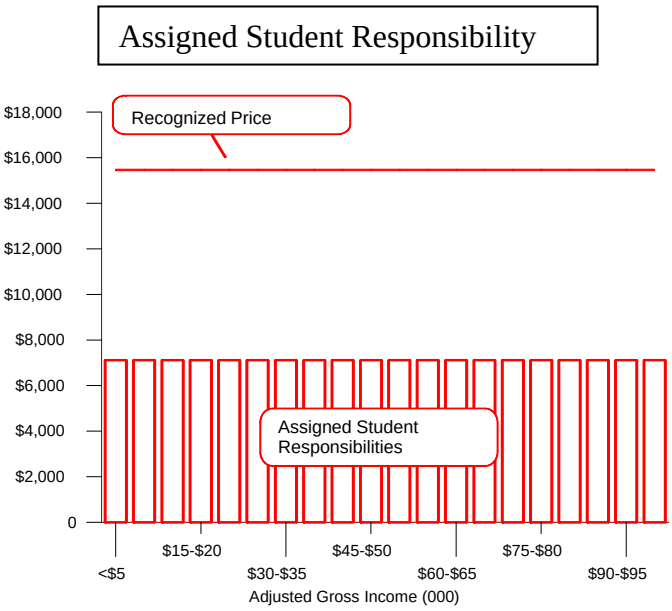
The state expects all *students* to make a significant personal investment in their own postsecondary educations up front, called Assigned Student Responsibilities. This assignment was intended to be a rigorous but reasonable amount that students could cover with a combination of past, current and future incomes.

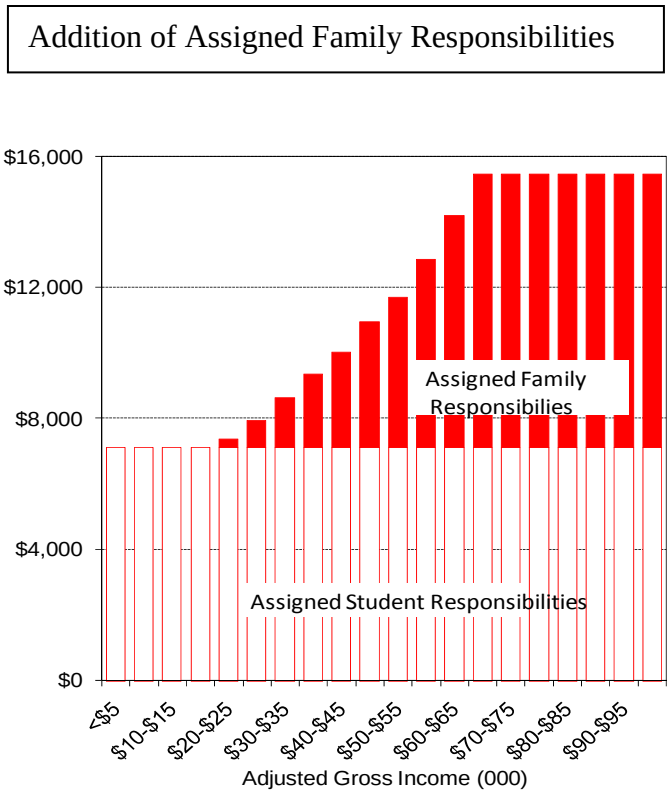
Assigned student responsibilities for typical undergraduate students attending the University of Minnesota in Fiscal Year 2007 are shown on Panel 1 on the next page. Assigned Student Responsibilities is an implementation of the Carnegie Council's recommendation that students be assigned a substantial self-help component.

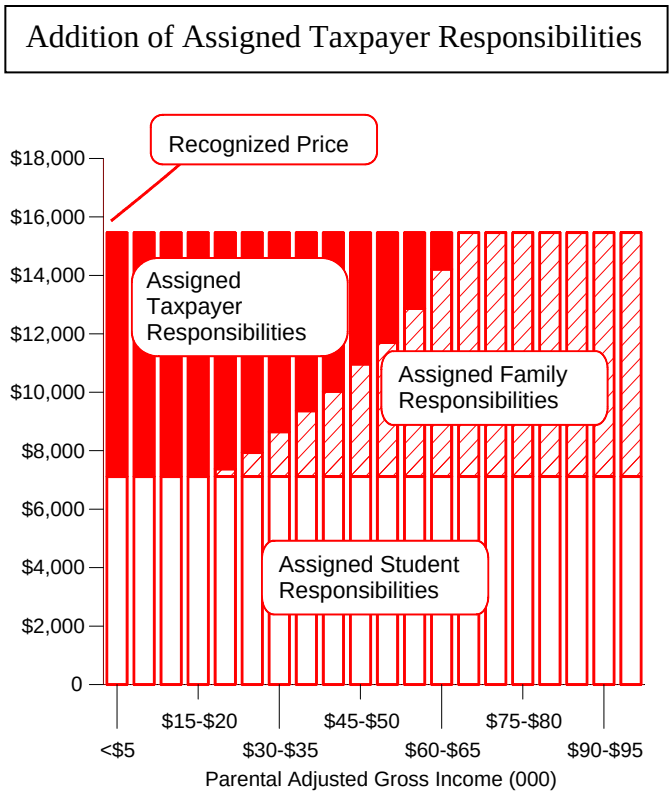
The remainder of the recognized price is split between families and taxpayers. The state expects *families* to invest in their students' postsecondary educations based on their ability to pay, called assigned family responsibilities. This assignment is shown on Panel 2 on the next page. Similar to the Prior Model, Assigned Family Responsibilities are based on the results of the Federal Need Analysis.

If assigned student responsibilities and assigned family responsibilities do not sum to the full Recognized Price of Attendance, the program assigns the remainder to taxpayers, called assigned taxpayer responsibilities, as shown on Panel 3 on the next page. To cover this assignment, federal Pell grants are counted first, leveraging federal taxpayer dollars before state taxpayer dollars are committed. Minnesota State Grants fill in any remaining portion of the Recognized Price of Attendance. The Design for Shared Responsibility, unlike the Prior Model, assigns the entire Recognized Price of Attendance and avoids residuals that fall to students from families on the lower end of the income spectrum.

Design for Shared Responsibility for Typical Dependent Students facing a Recognized Price of Attendance = $15,462







Recognized prices of attendance used to calculate Minnesota State Grants is restricted by Tuition and Fee Maximums set by the state. The mean reported tuition and fees for students attending institutions in each of the groups as well as the mean recognized tuition and fees for the same students are shown in the following table.

Comparison of Posted and Recognized Tuition and Fees, Fiscal Year 2007

Students Attending	Posted Tuition and Fees	Recognized Tuition and Fees	Difference
Minnesota Private 4-year Institutions	$19,476	$8,547	$10,929
Minnesota Private 2-year Institutions	$11,625	$6,349	$5,276
University of Minnesota	$9,448	$9,397	$51
Minnesota State 4-year Universities	$5,955	$5,955	$0
Minnesota State 2-year Colleges	$4,252	$4,252	$0

Mean recognized prices for Fiscal Year 2007 and the component parts, recognized tuition and fees and the standard Living and Miscellaneous Expense Allowance, are shown in the table below.

Students Attending	Recognized Tuition and Fees	Living and Miscellaneous Expense Allowance	Recognized Price
Minnesota Private 4-year Institutions	$8,547	$6,065	$14,612
Minnesota Private 2-year Institutions	$6,349	$6,065	$12,414
University of Minnesota	$9,397	$6,065	$15,462
Minnesota State 4-year Universities	$5,955	$6,065	$12,020
Minnesota State 2-year Colleges	$4,252	$6,065	$10,317

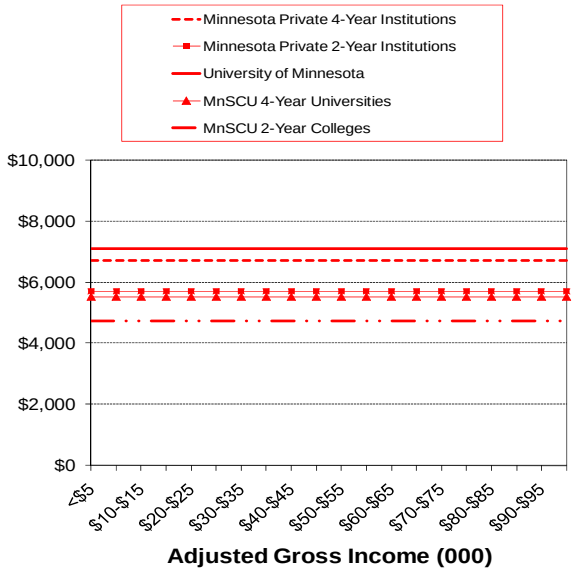
Assigned Student Responsibilities vary with the recognized price of the option chosen by the student but not by income, as shown in Panel 1 on the next page. While the dollar amount varies with recognized price, the percentage assigned to students does not, as shown on Panel 2.

Assigned Family Responsibilities depend on financial circumstances, as shown on Panel 3 on the next page.

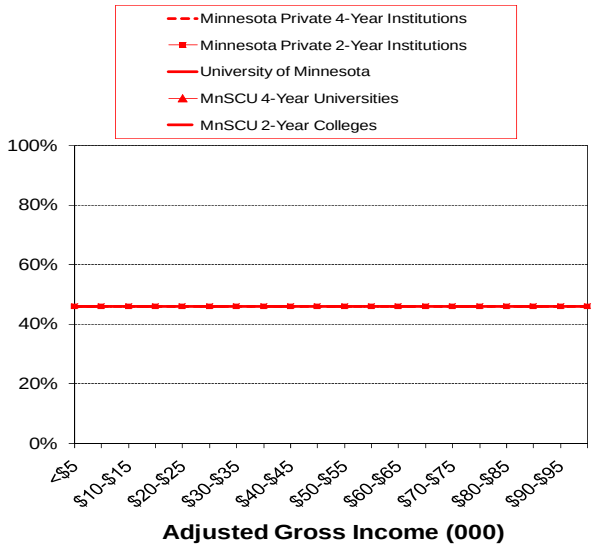
Assigned Taxpayer Responsibilities vary with price, as shown in Panel 4. These variations are the residuals of differences in assigned student and family responsibilities across incomes and prices.

Design for Shared Responsibility Assignment of Payment Responsibilities Across Prices of Attendance

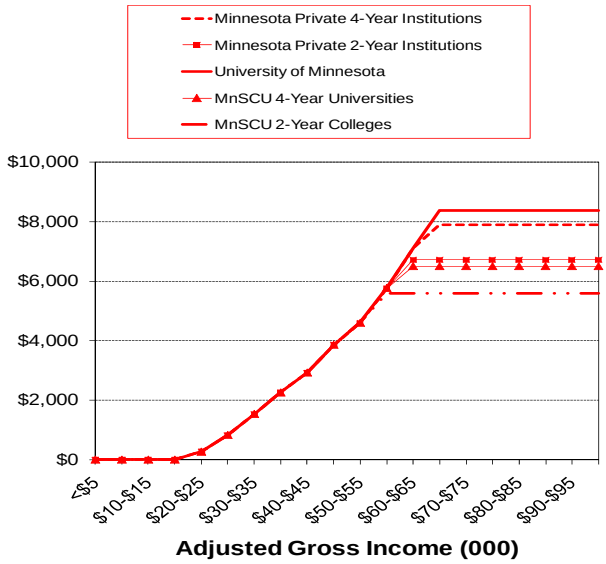
1. Assigned Student Responsibilities
Typical Student, Fiscal Year 2007



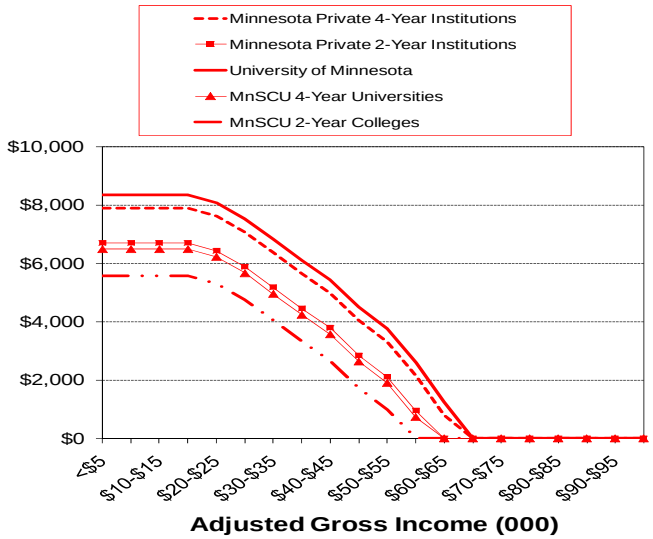
2. Assigned Student Responsibilities as a Percent of Recognize Price
Typical Student, Fiscal Year 2007



3. Assigned Family Responsibilities
Typical Dependent Student, Fiscal Year 2007



4. Assigned Taxpayer Responsibilities
Typical Dependent Student, Fiscal Year 2007



Comparison of the Two Models

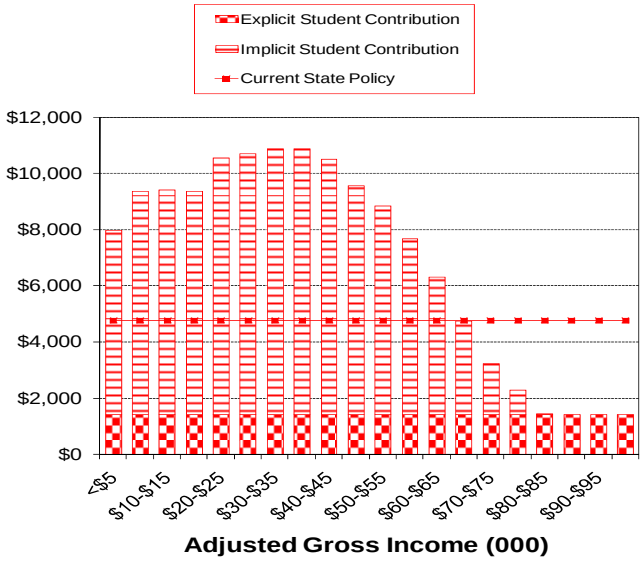
The main difference between the Design for Shared Responsibility and the Prior Model is the expectation of students. Students from families on the left-hand side of the income spectrum were assigned greater payment responsibilities than students from families on the right-hand side of the income spectrum with the Prior Model, as shown on Panel 1 on the next page. Under the Prior Model, students were assigned explicit and implicit payment responsibilities. The implicit payment responsibility was concentrated on the left-hand side of the income spectrum as a result of the maximum award features of Federal Pell Grants and the Prior Model for Minnesota State Grants. The Design for Shared Responsibility corrected this problem by assigning the same payment responsibility to all students facing the same price.

The assignments to parents were similar between the Prior Model and the Design for Shared Responsibility. Both relied on an external measure of ability-to-pay, Uniform Methodology and the Federal Need Analysis. The only difference in practice was the point at which parents were assumed to reach the maximum payment assignment, as shown on Panel 2 on the next page.

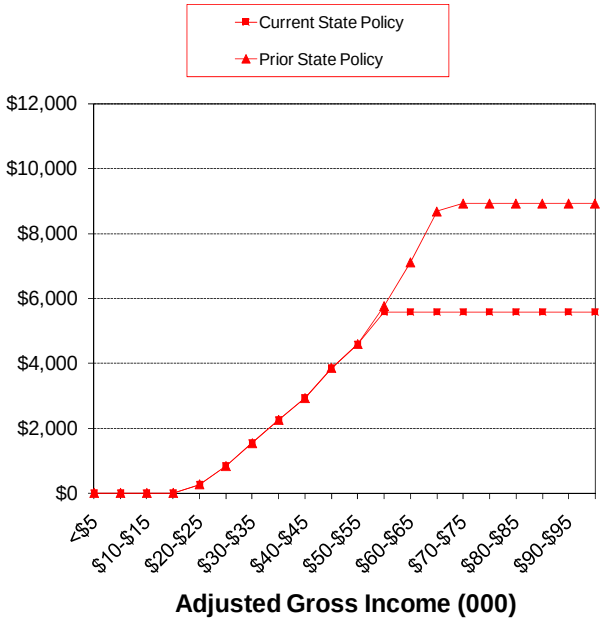
Finally, removing the maximum award feature of the Prior Model, the Design for Shared Responsibility targeted taxpayer assistance more toward the left-hand side of the income spectrum, as shown on Panel 3 on the next page.

Comparison of the Prior Model and the Design for Shared Responsibility
Assignment of Payment Responsibilities

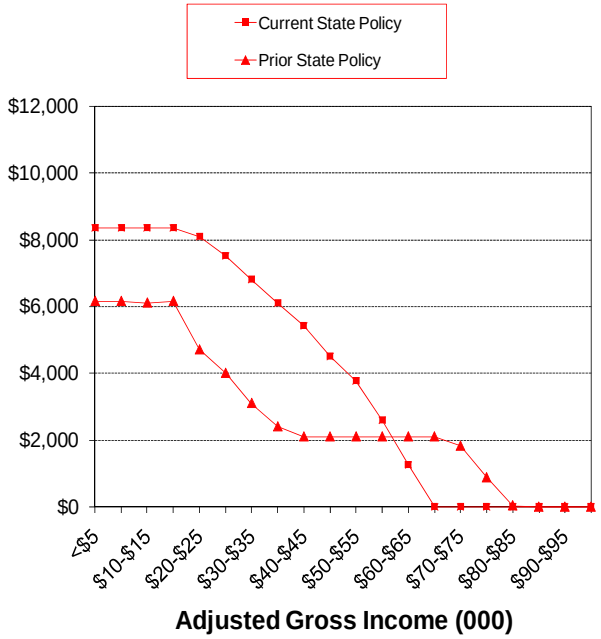
1. Assignment to Students
Typical Dependent Students Attending the University of Minnesota, Fiscal Year 2007



2. Assignment to Families
Typical Dependent Students Attending the University of Minnesota, Fiscal Year 2007



3. Assignment to Taxpayers
Typical Dependent Students Attending the University of Minnesota, Fiscal Year 2007



Design for Shared Responsibility Informed an Evaluation of All Agency Financial Aid Programs

As part of its implementation of the Design for Shared Responsibility, the Minnesota Higher Education Coordinating Board reviewed the policies of the financial aid programs it administered to determine what should be done to bring them in conformity with the Design for Shared Responsibility.

- In 1984, the Coordinating Board concluded that the principles of Design for Shared Responsibility applied to all undergraduates and recommended that part-time students be eligible for Minnesota State Grants.[11]

- In 1985, the Coordinating Board set up the Minnesota Student Educational Loan Fund (SELF) program to provide an alternative source of loan capital so students would have access to their future incomes to finance their investments in postsecondary education.[12]

- In 1985, the Coordinating Board examined the Minnesota Work-Study program and its role within the policy of Design for Shared Responsibility.[13]

- In 1985, the Coordinating Board examined the role of the LME within the context of how the state was implementing the Design for Shared Responsibility and recommended that any changes "be consistent with the National Association of Student Financial Aid Administrators concept of recognizing a frugal student's standard of living." This report introduced the concept of comparing the Living and Miscellaneous Expense Allowance to a percentile ranking of reported student spending.[14]

[11] See Minnesota Higher Education Coordinating Board (1984).

[12] See Minnesota Higher Education Coordinating Board 1983b.

[13] See Minnesota Higher Education Coordinating Board 1985b.

[14] See Minnesota Higher Education Coordinating Board 1985c.

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Tuition and Fee Maximums in the Minnesota State Grant Program

Minnesota State Grant Review

October 2008

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Dr. Gerald Setter died unexpectedly in 2008 after completing most of the in-depth analysis reflected in this report. The Office of Higher Education is grateful for his thoughtful insight, hard work and nearly 30-year commitment to public service.

Introduction

In the *Overview of the Design for Shared Responsibility*, tuition and fee maximums were generally described. This report provides additional background information on the maximums. In addition, the paper describes three benchmarks that may serve as potential guides for policymakers when establishing tuition and fee maximums.

The maximums set in statute serve as the first formula for awarding Minnesota State Grants the Minnesota State Grant Program starts with the recognized price of attendance. The recognized price of attendance is the sum of recognized tuition and fees plus a standard living and miscellaneous expense allowance. Minnesota Laws define recognized tuition and fees as the lesser of:

- Average tuition and required fees paid by resident undergraduates registering for full-time loads.[1]

- Tuition and fee maximums set as part of the state's appropriation process.

There are two tuition and fee maximum amounts set in statute; one for students attending four-year programs and one for students attending two-year programs. The tuition and fee maximums act as a budgeting tool by constraining the state's exposure to demands on the general fund. In addition, tuition and fee maximums act as a disincentive to institutions and systems for tuition increases. Second, postsecondary institutions have an incentive to increase prices if they are covered for low-to-moderate-income state residents, and tuition and fee maximums act as a disincentive to tuition and fee increases, (although the degree to which this is true is open to empirical evaluation). Tuition and fee maximums are a reflection of the Legislature's judgment about the appropriate amount of tuition and fees to be recognized as a matter of State Grant Program policy. The test of this judgment is how well they reflect the actual tuition and fees students face.

Tuition and Fee Maximums Over Time

The original tuition and fee maximum levels were established in 1983 and implemented in 1984. The initial four-year maximum was set using University of Minnesota undergraduate instructional costs as reported in the biennial budget process using a uniform average cost funding methodology.[2] The following table shows how tuition and fee maximums have changed between 1984 and 2008 by action of the Legislature, and compares actual tuition and fee maximums to inflation. The inflation indicator used in the table is the college tuition and fees component of the consumer price index. This is a national figure and may not completely reflect the experience in Minnesota, but is conceptually an appropriate index.[3]

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[1] Actual tuition and fees charged by the institution attended based on the student's course load was used in Fiscal Year 2003 and rescinded starting in Fiscal Year 2004.

[2] Report of the Minnesota Financial Aid Task Force, February, 1994.

[3] See the reference at www.bls.gov/cpi/cpifacct.htm.

Four-year and Two-year Tuition and Fee Maximums
Statutory Levels and Adjusted for Inflation
Fiscal Years 1984 to 2008

Fiscal Year	Four Year Statutory Tuition and Fee Maximum	Inflation Adjusted Four Year Statutory Tuition and Fee Maximum	Two Year Statutory Tuition and Fee Maximum	Inflation Adjusted Two Year Statutory Tuition and Fee Maximum
1984	$3,598		$3,573	
1985	4,063	$3,925	3,752	$3,898
1986	4,973	4,243	3,940	4,213
1987	5,271	4,564	4,215	4,532
1988	5,875	4,911	4,568	4,877
1989	6,024	5,300	4,684	5,264
1990	7,095	5,729	4,839	5,689
1991	7,663	6,312	5,146	6,268
1992	7,663	6,990	5,898	6,941
1993	7,663	7,645	5,898	7,591
1994	7,663	8,178	5,898	8,121
1995	7,663	8,669	5,898	8,609
1996	7,665	9,160	5,900	9,097
1997	7,665	9,628	5,900	9,562
1998	7,860	10,034	6,020	9,965
1999	8,055	10,434	6,200	10,361
2000	8,300	10,866	6,390	10,791
2001	8,550	11,419	6,580	11,340
2002	8,764	12,198	6,744	12,114
2003	8,983	13,223	6,913	13,131
2004	8,983	14,474	6,913	14,373
2005	8,983	15,554	6,913	15,446
2006	9,208	16,631	6,567	16,516
2007	9,438	17,689	6,436	17,566
2008	9,838	18,789	6,114	18,658

The table demonstrates that the Legislature has employed its prerogative to increase, decrease or hold nearly constant the tuition and fee maximums for students attending four-year and two-year institutions. The table also illustrates that, using 1984 as a starting point and the CPI index as an inflator, the tuition and fee maximums have not maintained purchasing power over the past 25 years.

Benchmarks for Setting Tuition and Fee Maximums

There are no policy guidelines in state statute for setting tuition and fee maximums. Currently they are established as part of the state's appropriations process without reference to benchmarks. The following benchmarks have either been used or suggested for use in determining the tuition and fee maximums.

1. Instructional spending per student at public institutions
2. Posted tuition and fees at public institutions
3. Taxpayer spending per student at public institutions

1. Instructional Spending per Student at Public Institutions

Tuition and fee maximums were part of the Design for Shared Responsibility as adopted by the 1983 Minnesota Legislature and Governor. Between 1984 and 1987, the tuition and fee maximums were benchmarked to University of Minnesota undergraduate instructional costs at two campuses as reported in the University's cost study.[4] A motivation for this benchmark appears to have been the desire to limit state support for a student attending a private institution to the level of support for a similar student attending a comparable public institution. From 1988-1991, tuition and fee maximums were benchmarked to undergraduate per student instructional spending as reported by Minnesota's public postsecondary education systems in the Governor's biennial budget recommendations using an average cost funding methodology. Instructional spending per student, by level of instruction, was the sum of instructional spending from state appropriations and student tuition.

There does not appear to have been a policy rationale for using instructional spending as a benchmark other than to limit public spending on students attending private institutions. With the advent of average cost funding, instructional spending was a conveniently available number derived from an established methodology. Instructional spending data by level of instruction is no longer reported in the Governor's biennial budget recommendations, and therefore, are not currently available. A provision was added to the higher education bill in 2007 that requires instructional cost data to be reported in future biennial budget documents. It is not clear if the instructional cost data to be reported by Minnesota's two public systems will be helpful as a tuition and fee maximum guideline.

2. Posted Tuition and Fees at Public Institutions

Since the discontinuation of average cost funding and instructional cost reporting by Minnesota's public postsecondary systems, the Minnesota Legislature has set tuition and fee maximums in statute. Legislative staff have suggested benchmarking the tuition and fee maximums to posted tuition and fees at public two- and four-year institutions; however, this approach has not been discussed broadly.

[4] The two institutions were the University of Minnesota, Duluth and the University of Minnesota, Morris. Preliminary cell values were used since the final values were typically not available until after the Governor submitted the budget.

There does not appear to be a strong policy rationale for using posted tuition and fees at public institutions to benchmark the tuition and fee maximums. Similar to instructional spending during the period of average cost funding policy, posted tuition and fees at public institutions are convenient and available.

3. Taxpayer Spending per Student at Public Institutions

Taxpayer spending per undergraduate student at public institutions is an alternative approach to benchmarking the tuition and fee maximums. As with posted tuition and fees at public institutions, this approach has not been discussed publicly. Taxpayer spending per undergraduate student is the sum of state appropriations spent on instruction, the federal Pell Grant and the Minnesota State Grant. The data necessary to benchmark the tuition and fees maximums to taxpayer spending per student are conveniently available.

The taxpayer spending benchmark assumes taxpayers are indifferent where Minnesota undergraduate students obtain undergraduate education in Minnesota, as long as the cost to the taxpayer is the same. If taxpayers are buying enhanced human capital by investing in undergraduate education, then taxpayers may be indifferent as to where undergraduate students obtain human capital. This taxpayer indifference would not hold if there were demonstrated differences among institutions in enhancing human capital.

For example, the four-year tuition and fee maximum could be set with the following formula with reference to information from the University of Minnesota:

$$Pell\ Grant_4 + State\ Grant_4 \leq Pell_{um} + State\ Grant_{um} + Appropriations\ per\ Student_{um}$$

Where $Pell\ Grants_4$ represents grants at four-year institutions currently limited by the tuition and fee maximums and $Pell\ Grant_{um}$ is the largest grant available for a recipient at the University of Minnesota.

Per student taxpayer appropriations for instruction reported by Minnesota State Colleges and Universities and the University of Minnesota were as follows:

- For Minnesota State Colleges and Universities, 102 percent of Recognized Tuition and Fees.[5]

- For the University of Minnesota, $4,277.[6]

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[5] Each year, the Minnesota State Colleges and Universities reports the taxpayer subsidy provided for instruction. For Fiscal Year 2007, MnSCU reported this information on its Web site as: "For every dollar you pay in tuition, the state of Minnesota pays $1.02 to support your education." [Accessed at www.mnscu.edu/students/tuition.html (March 23, 2007)].

[6] Each year, the University of Minnesota reports the taxpayer subsidy provided for instruction. For Fiscal Year 2007, the University of Minnesota reported this information on its Web site as: "Tuition pays for approximately 67 percent of the cost of instruction at the University of Minnesota. The state of Minnesota pays approximately $4,277 of the average cost for full-time students." [Accessed at www.onestop.umn.edu/onestop/Tuition_Billing/Tuition_Rates.html (March 23, 2007)].

These figures can be used to determine an implied tuition and fee maximum for students attending four-year institutions. The University of Minnesota number was used in the calculation below. Taxpayer appropriations per student do not include student paid tuition and fees, capital costs covered by the state through the bonding process or any other taxpayer investments.[7]

U of M Recognized Price of Attendance and Design for Shared Responsibility Distribution

	Tuition & Fee Maximum*	$9,838
+	LME**	$6,200
=	Recognized Price of Attendance	$16,038
	ASR = 46%	$7,377
	AFR/ATR= 54%	$8,661

Private Four Year Recognized Price of Attendance and Design for Shared Responsibility Distribution

Recognized Price of Attendance***	$23,958
ASR = 46%	$11,021
AFR/ATR= 54%	$12,938

Maximum calculation under Taxpayer Investment Approach

State Grant U of M Student =	
Current RPA*	$16,038
x AFR/ATR %****	54%
= State Grant U of M student	$8,661
+ General Appropriation U of M for all students	$4,277
= Taxpayer Investment	$12,938
Divided by 54% of Price	54%
= Total Recognized Price of Attendance	$23,959
Less LME Amount	$6,200
Implied four year tuition and fee maximum	$17,758

* Assumes U of M Recognized Price of Attendance (RPA) is 15 credit tuition and fees average + LME

** Assumes LME set at $6,200 for U of M undergraduates, but it could be set at any reasonable amount.

*** Recognized Price of Attendance for Private Four Year students = formula from above

**** This assumes a zero Expected Family Contribution

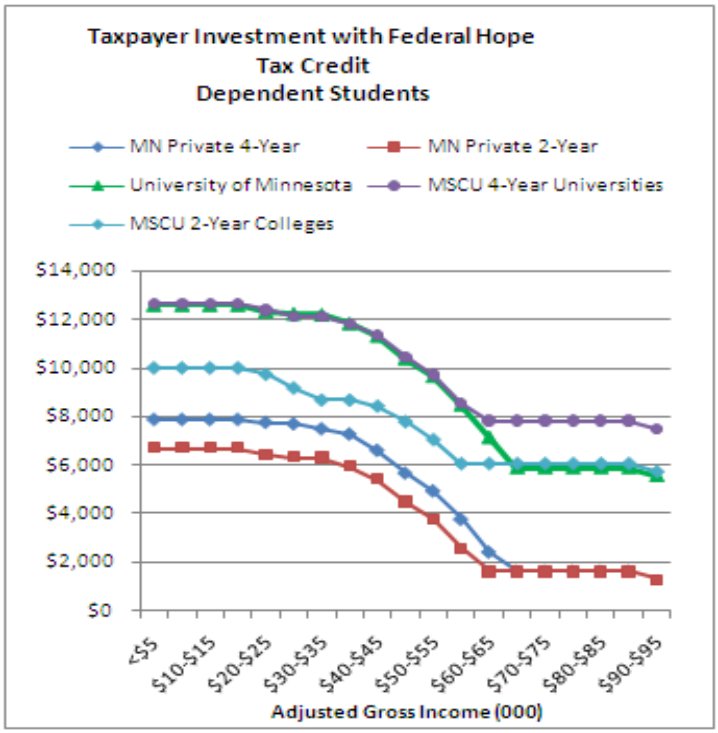
Using taxpayer spending per student at public institutions as a Tuition and Fee Maximum guideline, the Tuition and Fee Maximums would have been $17,758 in Fiscal Year 2007. Coincidently, this amount is similar to the inflation adjusted Tuition and Fee Maximum for Fiscal Year 2007 in the table on page I-4.

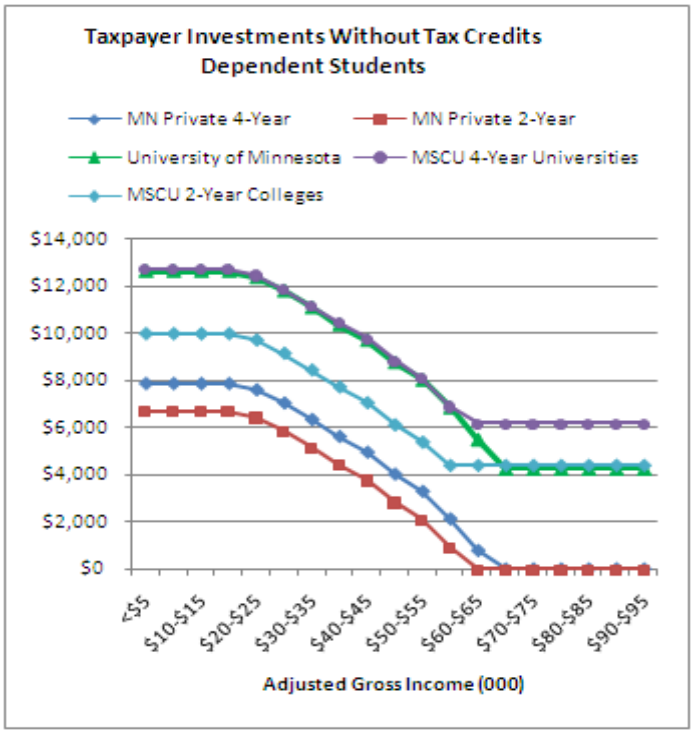
[7] Information from the Department of Finance indicates that in 2006 this subsidy for capital costs debt service amounted to almost $57 million, or over $200 per student.

The following charts demonstrate that taxpayers currently differentiate among students and prefer to invest in students attending public institutions. Specifically, the panels are the sum of the federal Pell and Minnesota State Grants plus a measure of taxpayer appropriations per student for instruction as reported by MnSCU and the University of Minnesota for Fiscal Year 2007. Federal Pell and Minnesota State Grant data shown on the charts were from the Minnesota Office of Higher Education for Fiscal Year 2007.[8]

The charts include taxpayer investments in students through the federal Hope Tax Credits based on Fiscal Year 2006 Internal Revenue Service rules.[9]

Taxpayer Spending per Student for Dependent Students
Fiscal Year 2007

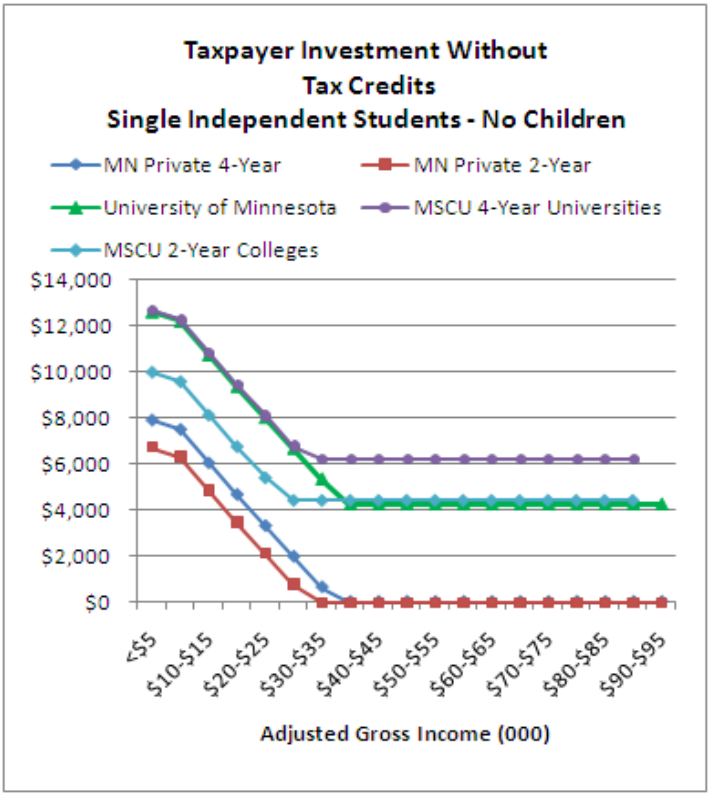


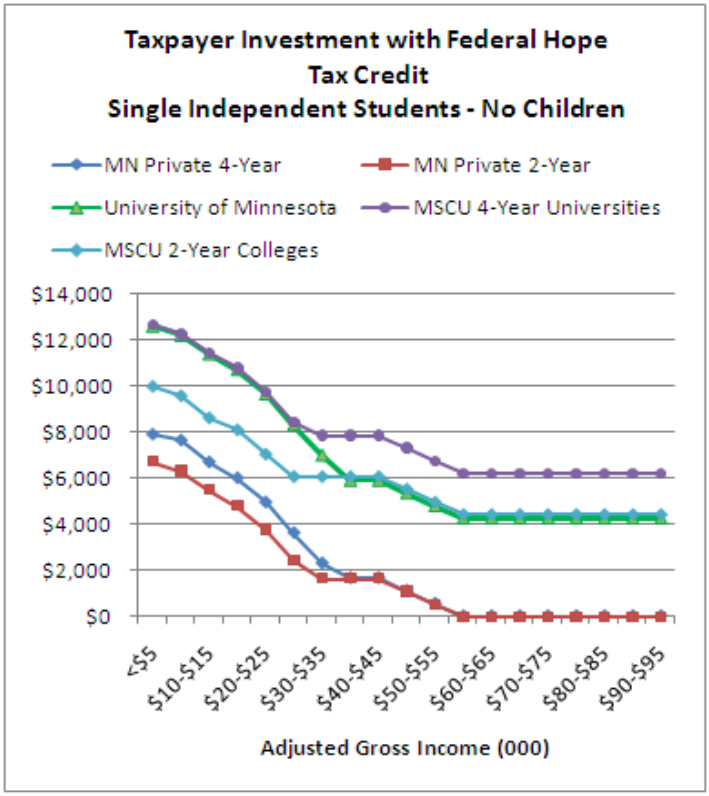


[8] For dependent students, it was assumed that the parents filed jointly, claimed four exemptions and used the standard deduction. For unmarried independent students, it was assumed that they had household size = 1 and used the standard deduction

[9] Federal Hope Tax Credits provide the most postsecondary education tax dollar benefits to filers. Federal Lifetime Tax Credits are claimed by filers unable to claim Federal Hope Tax Credits. The Federal Tuition and Fee Deduction extends postsecondary education tax benefits further up the income spectrum than either the Federal Hope Tax Credit or the Federal Lifetime Tax Credit.

Taxpayer Spending per Student for Independent Students
Fiscal Year 2007





Findings

- Over the years, the Minnesota Legislature has employed its prerogative to increase, decrease and sometimes hold nearly constant tuition and fee maximums for students attending four-year and two-year institutions.

- Using the tuition and fee maximums from 1984 as the base year and inflating the base year amount by the CPI index, the tuition and fee maximums have not maintained purchasing power over the last 25 years.

- Benchmarking the tuition and fee maximums to taxpayer spending on students attending public institutions would increase the tuition and fee maximums and result in similar taxpayer spending for low-to moderate-income students attending similar public and private institutions. This would result in taxpayer spending on students attending private institutions at the same levels as taxpayer spending on students attending public institutions.

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The Living and Miscellaneous Expense Allowance Used to Calculate Minnesota State Grants

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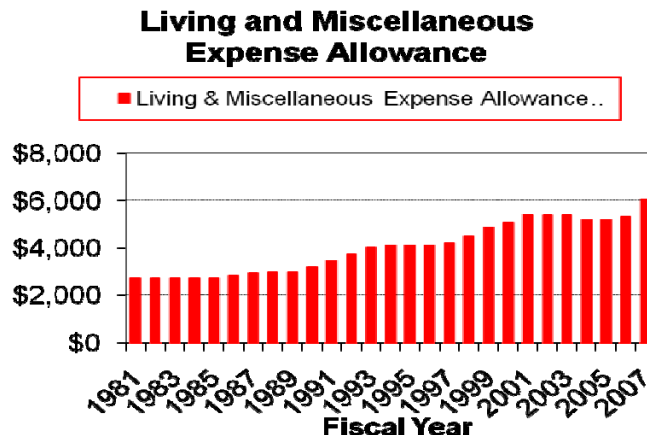
Introduction

In *Overview of the Design for Shared Responsibility,* the role of the Living and Miscellaneous Expense Allowance in defining the Recognized Price used in the calculation of Minnesota State Grants was described. The LME is intended to recognize a frugal student's cost of attending college beyond charges for tuition and fees.

LME amounts used to calculate Minnesota State Grants from Fiscal Years 1981 through 2007 are shown in the table to the right. It should be noted that the LME was temporarily increased from $5,350 to $6,065 to spend out a projected funding surplus for Fiscal Year 2007. The LME was subsequently set at $5,900 for Fiscal Year 2008 and $6,200 for Fiscal Year 2009.

This chapter explores whether the LME provides an adequate measurement of the cost of maintaining a modest living standard while attending college by comparing the LME to the rate of inflation and other standard measures of basic living costs such as the federal poverty threshold, consumer spending surveys and campus budgets used to award financial aid.



The Living and Miscellaneous Expense Allowance, LME, Used in the Minnesota State Grant Program

Fiscal Year	LME
1981	$2,750
1982	$2,750
1983	$2,750
1984	$2,750
1985	$2,750
1986	$2,850
1987	$2,960
1988	$2,985
1989	$2,995
1990	$3,170
1991	$3,465
1992	$3,750
1993	$4,033
1994	$4,115
1995	$4,115
1996	$4,115
1997	$4,200
1998	$4,500
1999	$4,885
2000	$5,075
2001	$5,405
2002	$5,405
2003	$5,405
2004	$5,205
2005	$5,205
2006	$5,350
2007	$6,065

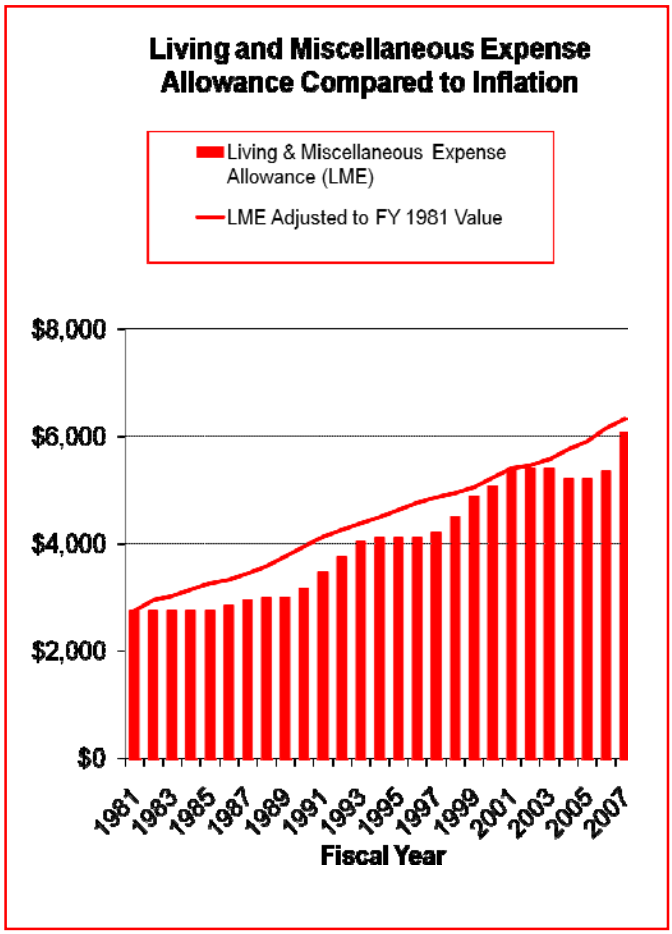
LME Comparisons

This section compares Minnesota's Living and Miscellaneous Expense Allowance to various indices and provides a context in which to understand the current LME dollar amount as a measure of a frugal standard of living.

LME Compared to Inflation

One measure of the change in prices consumers face is the Consumer Price Index. Minnesota State Grant's LME was $2,750 in Fiscal Year 1981 and is used as the starting point in the chart to the right. The initial LME was based on an average room and board cost of $1,813 as reported by campuses to the U.S. Department of Education, with an additional amount included for books and miscellaneous expenses. The 1981 value was adjusted each year by the Consumer Price Index to obtain the line shown in the chart to the right.

For most years, the LME has not kept pace with inflation. The Fiscal Year 2007 LME value of $6,065 is somewhat less than the 1981 value adjusted for inflation of $6,324.

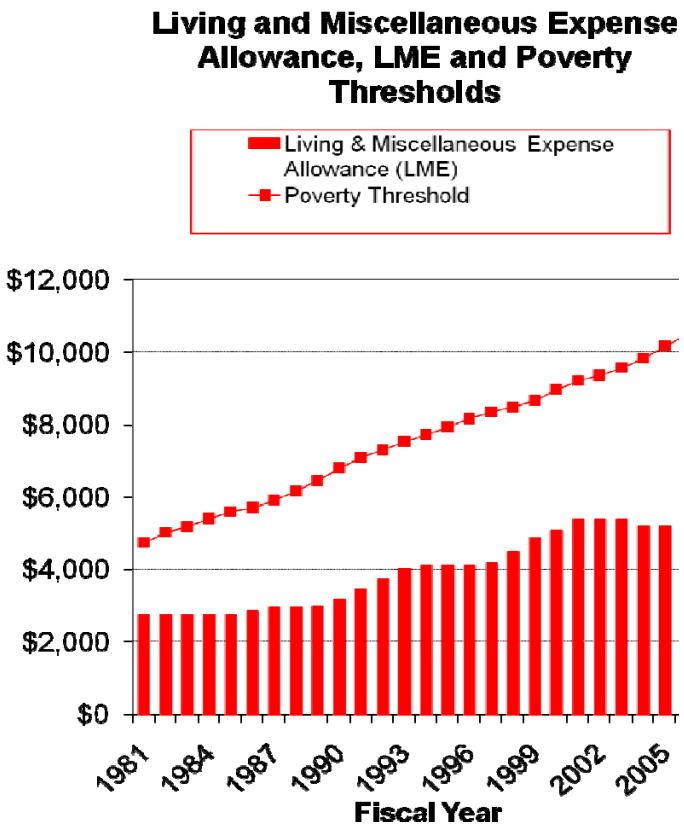


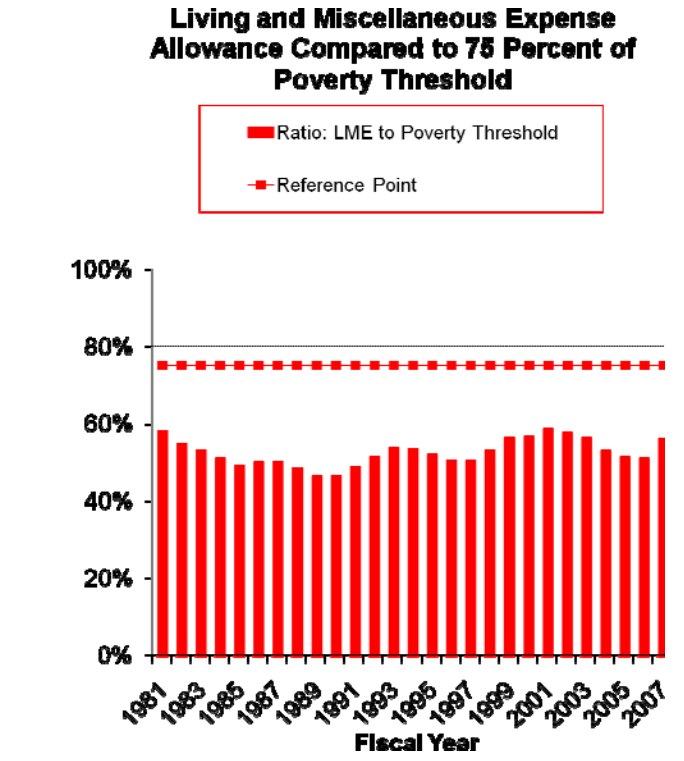
LME Compared to the Poverty Threshold

A common measure of the living standard of frugal individuals is the poverty threshold used in the calculation of many government benefits. The poverty threshold is determined by the Census Bureau and reported annually. For purposes of this comparison, the poverty threshold for a single individual under age 65 was used.[1] The poverty threshold has grown continually from $4,729 to $10,787 over the period, 1981 to 2007. The values of the poverty index and LME are shown on the upper panel to the right.

An important difference between the LME and the poverty threshold is that the LME is intended to cover the period of attendance during a nine-month academic year while the poverty threshold is intended to cover a 12-month period.

To account for differences in the length of time covered by LME and the poverty threshold, a reference point of 75 percent of the poverty threshold is used in the chart in the lower panel. The LME has always been significantly below the 12-month poverty threshold The LME decreased from 58 percent in 1981 to 46 percent in 1989; the ratio then increased to 59 percent in 2001; and subsequently, dropped to 56 percent in 2007.





Source: Poverty thresholds from Census Bureau, *Current Population Survey*, various years.

[1] In this section, the poverty threshold for the calendar year is compared to the LME for the fiscal year; for example, poverty threshold for calendar year 2003 is compared with the LME for Fiscal Year 2003.

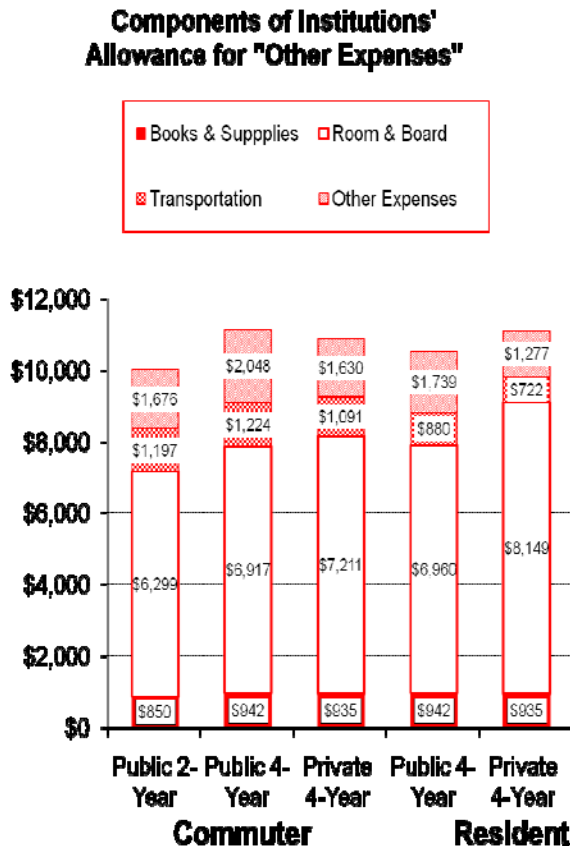
LME Compared to Average Undergraduate Budgets

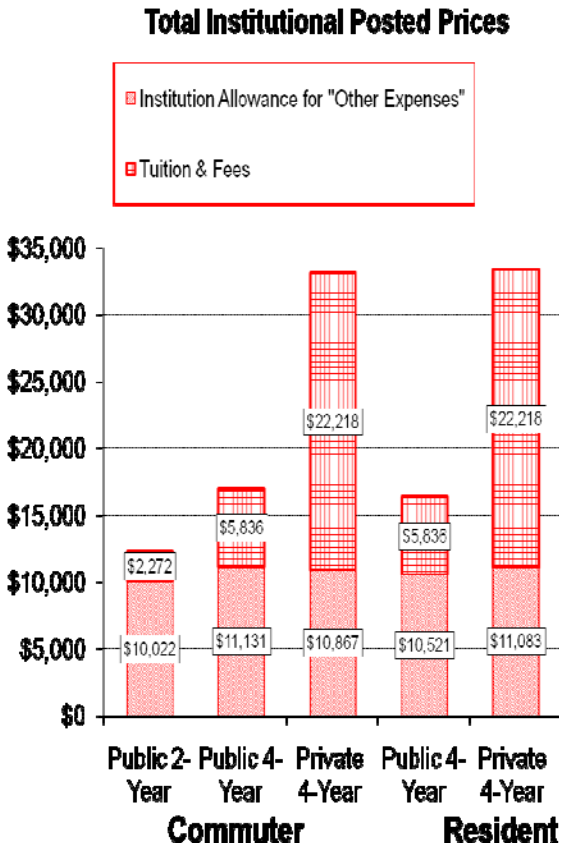
Average budgets used by campus financial aid offices provide a measure of comparison to the LME used to calculate Minnesota State Grants. Campus budgets are constructed for a number of purposes. One purpose is to provide prospective students with a realistic picture of the cost of living on campus.

Another purpose is to determine financial aid packages. Set too high, the resulting financial packages can put unneeded pressure on the resources of the campus. Set too low, students might not qualify for as much federal, state and private financial aid as they would at another institution.

The College Board (2006) annually conducts a budget survey of colleges and universities and reports weighted averages by type of institution and location of students relative to campus. The results for Fiscal Year 2007 are shown on the next chart. These averages are collected on an institutional basis and weighted by enrollment to reflect the average student. The components of the typical allowance for “Other Expenses” are shown on the left panel. The “Other Expenses” portion of undergraduate budgets ranged from $10,022 to $11,131 compared to the LME value of $6,065 used to calculate Minnesota State Grants in Fiscal Year 2007. The full price of attendance figures including tuition and fees are shown on the right panel on the next page.

Average Undergraduate Prices of Attendance, 2006-2007

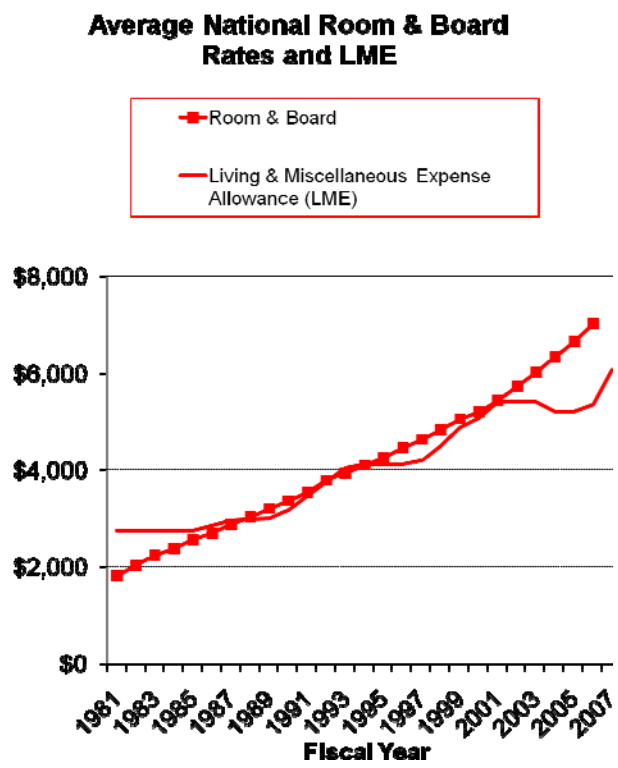




Source: College Board, Trends in College Pricing (2006)

LME Compared to Campus Room and Board Rates

The U.S. Department of Education collects average room and board rates for full-time students in degree granting institutions. In Fiscal Year 1981, the first year a statewide LME was established, the average room and board rate reported by the U.S. Department of Education was $1,813, as shown on the panel to the right.[2] The LME used for calculating Minnesota State Grants that year was $2,750, based on the average room and board rate and an additional amount for books and miscellaneous expenses. In Fiscal Year 2007, the average room and board rate was $7,379 compared to the LME of $6,065.



Source: U.S. Department of Education. *2007 Education*

[2] See Table 312 of the *2005 Economic Digest* prepared by the U.S. Department of Education. These data were accessed at nces.ed.gov/programs/digest/d05/tables/dt05_312.asp (March 21, 2007).

LME Compared to Minnesota Room and Board Rates

Room and board rates charged by Minnesota institutions provide another measure of comparison to the LME used to calculate Minnesota State Grants.

Campus Room and Board Rates: The price of on-campus room and board in Minnesota varied from $3,640 to $8,592, as shown in the next table.[3] Only those campuses reporting on-campus room and board rates to the U.S. Department of Education were included. These data do not identify differences in services provided in the base price, such as internet access.

Twenty of the 34 Minnesota campuses have room and board rates for students living in campus residence halls higher than the recognized Living and Miscellaneous Expense Allowance of $6,065, as shown in the fourth column on the following page. The 14 with lower rates are shown in the third column.

[3] See nces.ed.gov/ipeds/cool/ (Accessed March 27, 2007).

Campus Room and Board Rates 2006-2007

Institution	2006-2007 Room and Board Rate	If Less Than LME ($6,065), Amount Less	If More Than LME ($6,065), Amount More
Augsburg College	$6,604		$539
Bemidji State University	$5,628	$(437)	
Bethany Lutheran College	$5,278	$(787)	
Bethel College	$7,140		$1,075
Carleton College	$8,592		$2,527
College of St. Benedict's	$6,898		$833
College of St. Catherine	$6,432		$367
College of St. Scholastica	$6,514		$449
Concordia College	$5,090	$(975)	
Concordia University	$6,596		$531
Crossroads College	$5,700	$(365)	
Crown College	$6,654		$589
Gustavus Adolphus College	$6,400		$335
Hamline University	$7,280		$1,215
Macalester College	$7,982		$1,917
Martin Luther College	$3,640	$(2,425)	
Minneapolis College of Art & Design	$6,160		$95
Minnesota State University, Mankato	$5,099	$(966)	
Minnesota State University Moorhead	$5,356	$(709)	
North Central University	$4,934	$(1,131)	
Northwestern College	$6,460		$395
Oak Hills Bible College	$4,450	$(1,615)	
Pillsbury Bible College	$4,208	$(1,857)	
Southwest Minnesota State University	$6,240		$175
St Cloud State University	$5,250	$(815)	
St. John's University	$6,496		$431
St. Mary's University	$5,920	$(145)	
St. Olaf College	$7,400		$1,335
University of Minnesota Crookston	$5,488	$(577)	
University of Minnesota Duluth	$5,722	$(343)	
University of Minnesota Morris	$6,150		$85
University of Minnesota Twin Cities	$7,200		$1,135
University of St. Thomas	$6,882		$817
Winona State University	$6,430		$365

Source: U.S. Department of Education COOL Web site

Adding a Book and Supply Allowance

The price of attending college includes expenses beyond room and board. Books and supplies have become a major expense of attending a postsecondary education. Although each student faces a unique set of book and supply requirements, an annual book and supply estimate of $935 was used for purposes of this section, based on the average value reported by the College Board (2006).

Adding the room and board rates reported in the previous section and the $935 estimate for books and supplies, 28 of the 34 campuses were calculated to have prices higher than $7,000, which is the recognized LME plus book and supply allowance of $7,000 ($6,065 + $935), as shown in the next table.

Campus Room and Board Rates + Book & Supply Allowance, 2006-2007

Institution	Campus room & board + book & supply allowance	If less than LME + book supply allowance ($7,000), amount less	If more than LME + Book supply allowance ($7,000), amount more
Augsburg College	$7,539		$1,474
Bemidji State University	$6,563		$498
Bethany Lutheran College	$6,213		$148
Bethel College	$8,075		$2,010
Carleton College	$9,527		$3,462
College of St. Benedict's	$7,833		$1,768
College of St. Catherine	$7,367		$1,302
College of St. Scholastica	$7,449		$1,384
Concordia College	$6,025	$(40)	
Concordia University	$7,531		$1,466
Crossroads College	$6,635		$570
Crown College	$7,589		$1,524
Gustavus Adolphus College	$7,335		$1,270
Hamline University	$8,215		$2,150
Macalester College	$8,917		$2,852
Martin Luther College	$4,575	$(1,490)	
Minneapolis College of Art & Design	$7,095		$1,030
Minnesota State University, Mankato	$6,034	$(31)	
Minnesota State University Moorhead	$6,291		$226
North Central University	$5,869	$(196)	
Northwestern College	$7,395		$1,330
Oak Hills Bible College	$5,385	$(680)	
Pillsbury Bible College	$5,143	$(922)	
SW Minnesota State University	$7,175		$1,110
St Cloud State University	$6,185		$120

Institution	Campus room & board + book & supply allowance	If less than LME + book supply allowance ($7,000), amount less	If more than LME + Book supply allowance ($7,000), amount more
St. John's University	$7,431		$1,366
St. Mary's University	$6,855		$790
St. Olaf College	$8,335		$2,270
University of Minnesota Crookston	$6,423		$358
University of Minnesota Duluth	$6,657		$592
University of Minnesota Morris	$7,085		$1,020
University of Minnesota Twin Cities	$8,135		$2,070
University of St. Thomas	$7,817		$1,752
Winona State University	$7,365		$1,300

Source: Room & Board Rate, U.S. Department of Education COOL Web site
Book & Supply Allowance, College Board, Trends in College Pricing (2006)

Adding a $50 Weekly Miscellaneous Expense Allowance

Adding a $50 weekly miscellaneous expense allowance to the Minnesota campus room and board amounts and the $935 book and supply expense allowance used in the previous section resulted in amounts in excess of the current LME at all reporting institutions, as shown in the next table.

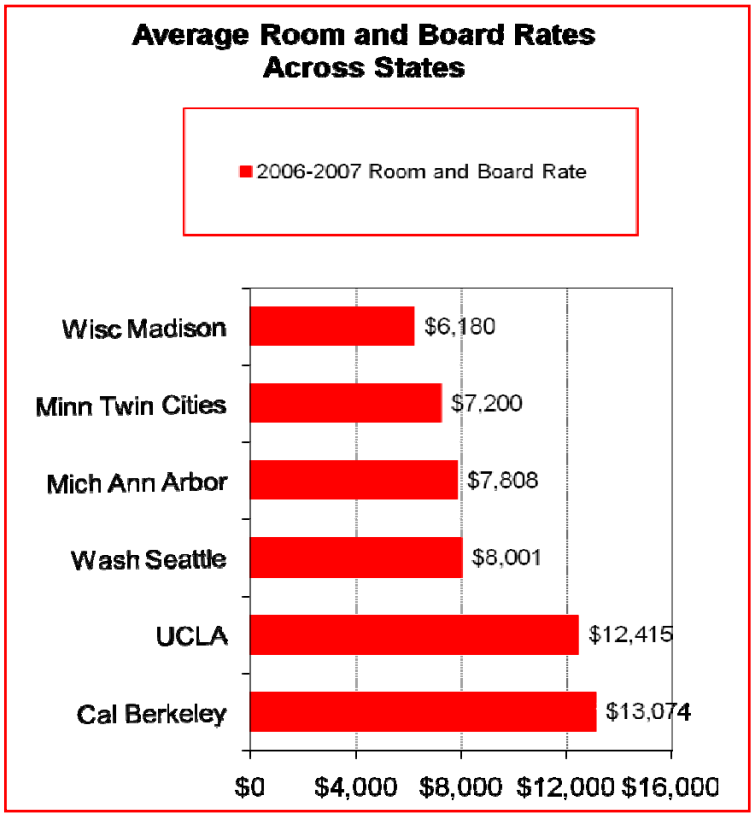
Campus Room and Board Rates + Book & Supply Allowance + $50 Weekly Miscellaneous Expense Allowance, 2006-2007

Institution	Books & Supplies + Book & Supply Allowance + $50 Weekly Allowance	If Less Than LME + Book Allowance + Weekly Allowance ($8,500), Amount Less	If More Than LME + Book Allowance + Weekly Allowance ($8,500), Amount More
Augsburg College	$9,039		$2,974
Bemidji State University	$8,063		$1,998
Bethany Lutheran College	$7,713		$1,648
Bethel College	$9,575		$3,510
Carleton College	$11,027		$4,962
College of St. Benedict's	$9,333		$3,268
College of St. Catherine	$8,867		$2,802
College of St. Scholastica	$8,949		$2,884
Concordia College	$7,525		$1,460
Concordia University	$9,031		$2,966
Crossroads College	$8,135		$2,070
Crown College	$9,089		$3,024
Gustavus Adolphus College	$8,835		$2,770
Hamline University	$9,715		$3,650
Macalester College	$10,417		$4,352
Martin Luther College	$6,075		$10
Minneapolis College of Art & Design	$8,595		$2,530
Minnesota State University, Mankato	$7,534		$1,469
Minnesota State University Moorhead	$7,791		$1,726
North Central University	$7,369		$1,304
Northwestern College	$8,895		$2,830
Oak Hills Bible College	$6,885		$820
Pillsbury Bible College	$6,643		$578
Southwest Minnesota State University	$8,675		$2,610
St Cloud State University	$7,685		$1,620
St. John's University	$8,931		$2,866
St. Mary's University	$8,355		$2,290
St. Olaf College	$9,835		$3,770
University of Minnesota Crookston	$7,923		$1,858
University of Minnesota Duluth	$8,157		$2,092
University of Minnesota Morris	$8,585		$2,520
University of Minnesota Twin Cities	$9,635		$3,570
University of St. Thomas	$9,317		$3,252
Winona State University	$8,865		$2,800

Campus Room and Board Rates in Other States

Another point of comparison is the residence hall room and board rates across states. The University of Minnesota-Twin Cities was used as the Minnesota reference point. The on-campus room and board rate was compared with a set of public flagship institutions in other states.[4]

For Fiscal Year 2007, the University of Minnesota on-campus room and board rate is the second lowest rate charged by these six flagship institutions, as shown on the chart to the right.



Source: U.S. Department of Education COOL Web site

LME Compared to Consumer Expenditure Data

The Minnesota Office of Higher Education replicated a student expenditure study completed by Paulin in 2001. Paulin's study used three years' worth of data (1996 through 1998) from the Bureau of Labor Statistics' Consumer Expenditure Survey to estimate quarterly expenses for students and nonstudents. In replicating this study, the Minnesota Office of Higher Education used five years' worth of data (2001 through 2005). The results offer a potential benchmark for comparing the LME with reported student expenditures.

To ensure expenses were applied to individuals, the sample used was chosen from respondents who lived alone and had never married. Additional constraints were age range (18 to 22), education level (from high school graduate to no more than an associate degree), and housing tenure (only renters were included in the sample). Individuals were classified as students if they were attending college full time.

Based on reported expenditure data, the weighted average 2001 through 2005 quarterly non-tuition and fee expenses for students was $3,187. When multiplied by three to estimate expenditures for a 9-month academic year, the result is $9,561, which exceeds the Fiscal Year 2007 LME of $6,065 by $3,496.

[4] For the definition of this comparison group, see Minnesota Office of Higher Education (2007), p. 32.

The LME Debate

Whether or not to include a LME in the Recognized Price of Attendance has been discussed. If included, how to arrive at an appropriate LME amount is challenging. Points of view vary widely. The following four points of view about the living and related expenses are often heard in debates and provide points of reference.

- **Not relevant.** Attendance does not interfere with a student's normal means of paying the price associated with a frugal life style. From time to time, including the LME in the Recognized Price for Minnesota State Grants is challenged. The implication is that tuition and fees are the only relevant price component for students.

- **Relevant and measured as opportunity costs.** Acknowledges a loss of income resulting from being unable to participate in the labor market fully (or at all) because of attending a postsecondary institution. This concept is often present in the language of those trying to understand decisions regarding investing in postsecondary educations relative to pursuing employment opportunities. The recognition of opportunity costs presumes students are foregoing the benefits of having income. Opportunity costs vary by student and labor market conditions; students (or potential students) who can command higher salaries face a higher price of attending than individuals who have little income producing potential in the labor market. Undergraduate financial aid policies in the United States have rarely considered opportunity costs. By way of contrast, Sweden historically has recognized students should be able to have the same standard of living as their peers who are not attending.[5] This view accepts opportunity costs as an appropriate measure of living and miscellaneous expenses.

- **Relevant and measured as an offset to income.** Living and Miscellaneous Expenses should be used as a deduction from income in calculating Assigned Family Responsibilities. Living and miscellaneous expenses, however measured, could be treated as offsets to income in the calculation of Assigned Family Responsibilities. Currently, a number of deductions and allowances are embedded in the calculation of the Expected Family Contribution within the Congressional Methodology federal need analysis formula. Some argue that the LME should be added as an additional offset, given that the income protection allowance used in the federal need analysis formula does not provide an offset against parental income for dependent students.

  The state, in this case, would recognize that covering the living and miscellaneous expenses of a student affects a family's ability to contribute to college costs. Such a deduction would have the effect of lowering the Assigned Family Responsibility for those families who have an Assigned Family Responsibility greater than zero. However, adding an LME deduction would have no effect on the lowest income families who have no Assigned Family Responsibility.

[5] See Johnstone (1986) and Hansson (1988).

- **Relevant and measured as price components.** Explicitly recognize the price of purchasing the items necessary to maintain a frugal to modest life style. Student financial aid administrators have historically included living costs as part of students' price of attendance. In creating Title IV federal financial aid programs, the federal government continued this historical practice and required campuses to establish student budgets that included allowances for living and miscellaneous expenses beyond the tuition and fees charged by institutions. From the beginning, the Minnesota State Grant program has included an allowance for living expenses as a price component. Since Fiscal Year 1981, the state has specified a uniform amount to be considered rather than relying on the campuses to set the value for students attending their campus.

Findings

Current State Grant policy explicitly recognizes student living expenses as a legitimate component of the price of attending college. All colleges factor in living costs when determining budgets used to package financial aid as do many other states in their state grant award formulas. Both the LME and living expenses contained within college financial aid budgets are intended to represent costs associated with a frugal lifestyle while attending college. When compared to other measures of living expenses, the LME generally falls short:

- The LME used in Minnesota has not kept pace with inflation, as measured by the Consumer Price Index. Using 1981 as the starting point, the actual LME has lagged behind its inflationary value for almost every year. For the most recent year measured, Fiscal Year 2007, the actual LME of $6,065 lagged behind its inflationary value of $6,324. (The base LME for Fiscal Year 2007 was $5,350 and only temporarily increased to $6,065 to spend out a projected funding surplus for the program.) The LME was permanently increased to $5,900 for fiscal year 2008 and $6,200 for fiscal year 2009. The inflationary value of the LME for 2008 would be $6,655.[6]

- The LME has been set below the federal poverty threshold for a family size of one, with the LME value of $6,065 for Fiscal Year 2007 representing 56 percent of the poverty threshold. However, the federal poverty threshold is based on costs associated with a 12-month period. Still, when adjusted to a nine-month period equivalent to an academic year, from 1981 through 2007, the LME has ranged from 66 to 84 of the nine-month federal poverty threshold.

- The LME is significantly less than the living cost components used in budgets set by campuses across the country to package financial aid. Based on data collected by the College Board for Fiscal Year 2007, the "other expenses" portion of undergraduate financial aid budgets ranged from $10,022 to $11,131, while the LME was set at $6,065. While the 1981 $2,750 LME was originally based on the average room and board rate of $1,813 reported by the U.S. Department of Education that year, plus an additional amount for books and other expenses, the Fiscal Year 2007 LME of $6,065 is now below the Department's 2007 average room and board rate of $7,379.

- Using the Fiscal Year 2007 campus room and board rates reported by the U.S. Department of Education for 34 campuses in Minnesota, plus a book allowance of $935 and a weekly miscellaneous expense allowance of $50, all campuses had expenses that exceeded the $6,065 LME used for the State Grant program. Campus costs exceeded the LME by a low of $10 to a high $3,770, with an average excess of $2,496.

[6] CPI Inflation Calculator, U.S. Department of Labor Bureau of Labor Statistics. www.bls.gov/data/inflation-calculator.htm

- Based on U.S. Census data from the Consumer Expenditure Survey for the 2001 to 2005 period, average total expenses for books, equipment and supplies, housing, food, transportation and other expenses for 18 to 22 year old students enrolled on a full-time basis were $2,584 per quarter. When multiplied by three to estimate expenses for a nine-month academic year, this results in average expenses of $9,561, which exceeds the Fiscal Year 2007 LME of $6,065 by $3,496.

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Covering Assigned Student Responsibilities

Minnesota State Grant Review

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Table of Contents

Dr. Gerald Setter died unexpectedly in 2008 after completing most of the in-depth analysis reflected in this report. The Office of Higher Education is grateful for his thoughtful insight, hard work and nearly 30-year commitment to public service.

Introduction

In *Overview of the Design for Shared Responsibility,* Assigned Student Responsibilities were defined and their role described. Assigned Student Responsibilities are similar to cost sharing found in other public and private transactions.

In this report, various approaches to financing the Assigned Student Responsibilities are explored. The first analysis examines the number of hours per week students would need to be employed to cover all of their Assigned Student Responsibilities. The second analysis examines the monthly payments if students borrowed to pay for all of their Assigned Student Responsibilities. A combination of the two is examined as the third option.

These analyses are illustrative of the feasibility of using employment, borrowing or a combination of both for financing Assigned Student Responsibilities. The results provide data to help readers judge the reasonableness and rigor of current assignments.

Paying Assigned Student Responsibilities with Current Income

This section of the paper describes how many hours per week students would need to be employed to pay their Assigned Student Responsibilities with minimum wage employment and mean Minnesota Work-Study wage rates.

The number of hours of employment needed to cover Assigned Student Responsibilities were calculated based on net earnings determined by wage and tax rates according to the following formulas:

Target net earnings = (Wage Rate * Hours Worked) - Federal Income Tax Liability - Minnesota State Income Tax Liability - FICA and Medicare Tax

Target net earnings = Assigned Student Responsibility for each prototype student

Wage rate = Minimum wage rate

Minimum Wage Rates

Year	1998	2001	2004	2007
Minimum Wage	$5.15	$5.15	$5.15	$6.15

Tax liabilities were calculated using standard federal and Minnesota tax returns based on current income only. An offset for FICA and Medicare Tax at a rate of 7.65 percent of gross income was deducted from earnings. Federal tax liabilities were computed on Form 1040 for the year the income was earned. To calculate income tax liabilities, standard deductions and exemptions were used for the year the income was earned. Persons itemizing their deductions could have a lower tax liability than calculated in this paper. The number of exemptions claimed for purposes of calculating federal income taxes for dependent students was assumed to be zero; it was assumed the parent claimed the student. Unmarried students with no dependents applying as independent students were assumed to be eligible to claim one exemption. Minnesota tax liability was computed on Form M1.

Dependent Students

The first case assumes dependent students pay Assigned Student Responsibilities with earnings by working the same number of hours per week for 50 weeks per year. In this case, the average work week required to pay Assigned Student Responsibilities ranged from 14 to 29 hours per week in Fiscal Year 1998 and 17 to 27 hours per week in Fiscal Year 2007, at the prices used in this analysis, as shown on the top left panel on page F-6.

The second case assumes dependent students work the same number of hours per week for 38 weeks per year combined with 12 weeks of full-time employment. The 12 weeks could occur anytime during the 52-week period. In this case, the average work week required to pay Assigned Student Responsibilities ranged from six to 25 hours per week in Fiscal Year 1998 and nine to 23 hours per week in Fiscal Year 2007, at the prices used in this analysis, as shown on the lower left panel on the next page.

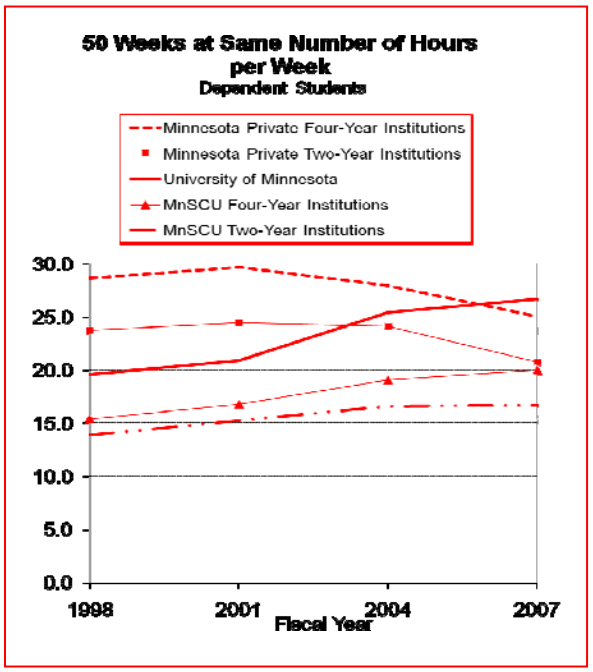
Unmarried Independent Students with No Dependents

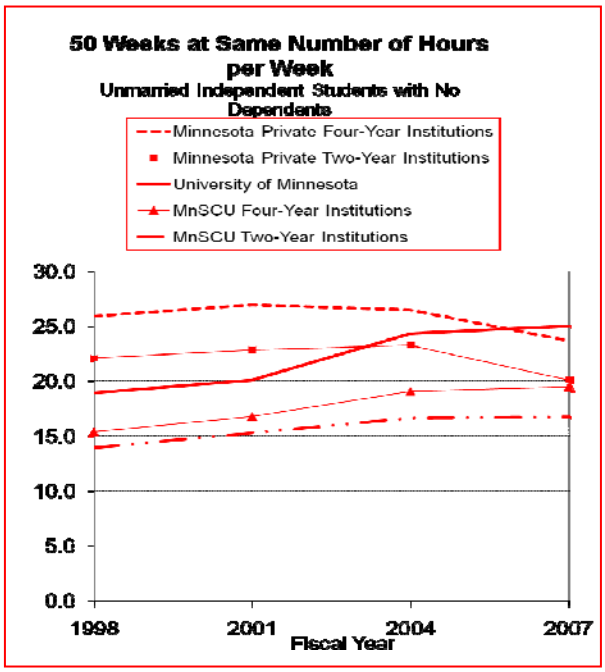
For unmarried independent students with no dependents, the average work week required to pay Assigned Student Responsibilities by working the same number of hours per week for 50 weeks per year ranged from 14 to 26 hours per week in Fiscal Year 1998 and 17 to 25 hours per week in Fiscal Year 2007, at the prices used in this analysis, as shown on the top right panel on the next page.

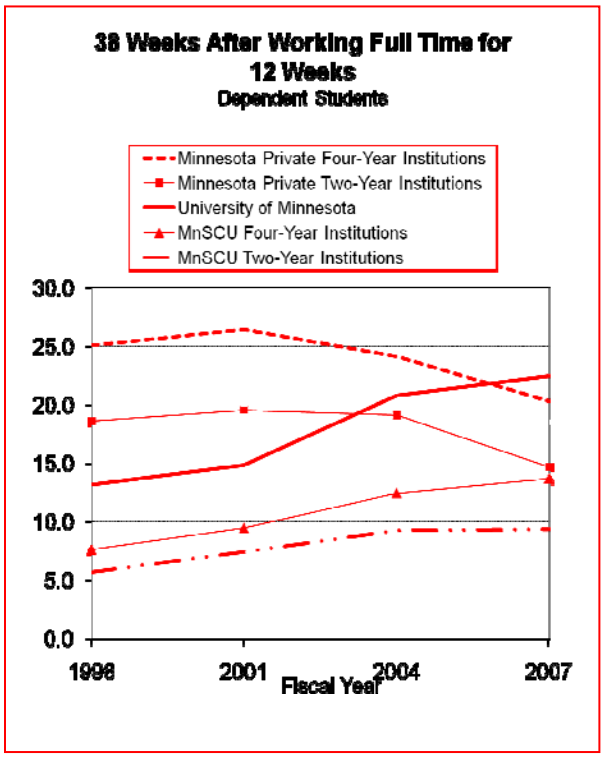
For unmarried independent students with no dependents, the average work week required to pay Assigned Student Responsibilities by working same number of hours per week for 38 weeks per year combined with 12 weeks of full-time employment ranged from six to 21 hours per week in Fiscal Year 1998 and nine to 20 hours per week in Fiscal Year 2007, at the prices used in this analysis, as shown on the bottom right panel on the next page.

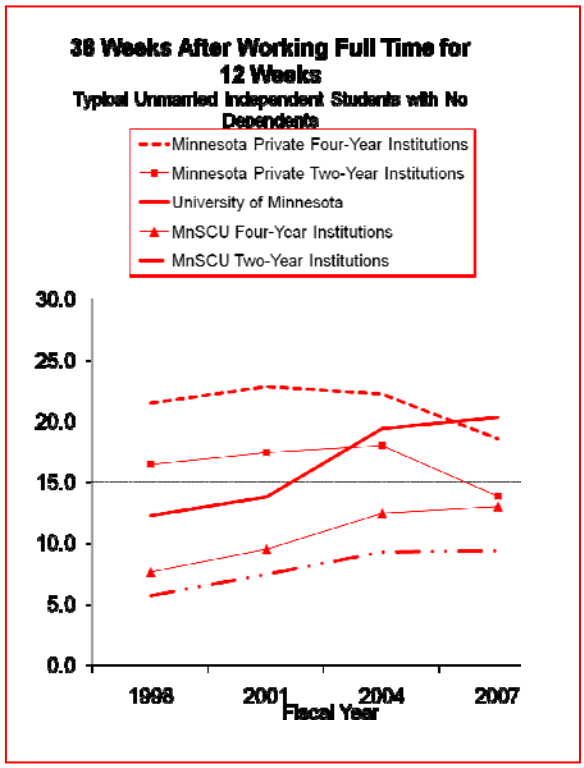
For students working full-time during the summer, weekly hours for the remaining 38 weeks of the year ranged from nine hours per week (MnSCU two-year institutions) to 23 hours per week (University of Minnesota) for dependent students and nine hours per week (MnSCU two-year institutions) to 20 hours per week (University of Minnesota) for independent students. If students work the same number of weekly hours for 50 weeks per year, the weekly hours ranged from 17 hours per week (MnSCU two-year institutions) to 27 hours per week (University of Minnesota) for dependent students and 17 hours per week (MnSCU two-year institutions) to 25 hours per week (University of Minnesota) for independent students.

Average Work Week Needed to Pay Assigned Student Responsibilities at Minimum Wage









Covering Assigned Student Responsibilities with Earnings from Jobs Paying Mean Minnesota Work Study Wages

Instead of using minimum wage rates, the mean Minnesota State Work-Study wage rates were used in this section to show what is occurring in the labor markets. These rates are shown in the next table and were used to calculate target net earnings.[1]

Mean Minnesota Work Study Wage Rates

Institution Type	1998	2001	2004	2007
MnSCU Two-Year Institutions	$6.03	$7.36	$7.73	$7.99
MnSCU Four-Year institutions	$5.31	$6.84	$7.38	$7.93
University of Minnesota	$7.79	$7.84	$8.58	$8.41
Minnesota Private Two-Year Institutions	$6.62	$8.01	$8.22	$8.15
Minnesota Private Four-Year Institutions	$5.89	$6.54	$7.13	$7.85

Dependent Students

In the first case, the average work week required for dependent students to pay Assigned Student Responsibilities by working the same number of hours per week for 50 weeks per year ranged from 11 to 23 hours per week in Fiscal Year 1998 and 13 to 20 hours per week in Fiscal Year 2007, at the prices used in this analysis, as shown on the top left panel on the next page.

In the second case, the average work week required for dependent students to pay Assigned Student Responsibilities by working the same number of hours per week for 38 weeks per year combined with 12 weeks of full-time employment ranged from three to 19 hours per week in Fiscal Year 1998 and four to 13 hours per week in Fiscal Year 2007, at the prices used in this analysis, as shown on the lower left panel on the next page.

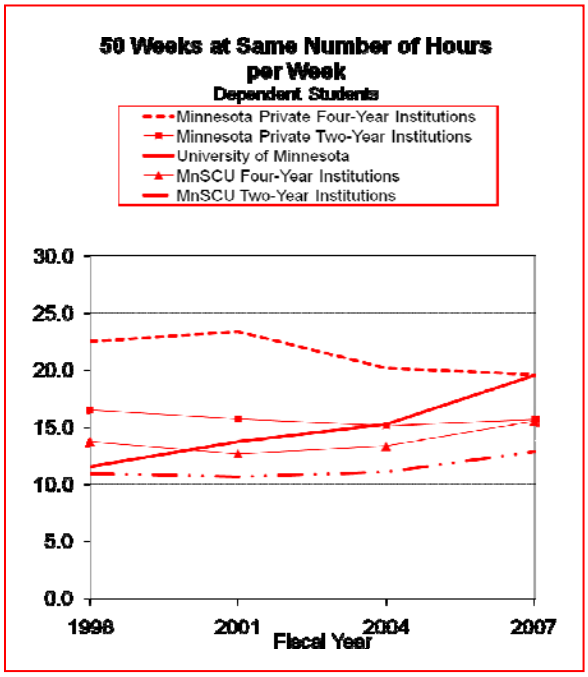
Unmarried Independent Students with No Dependents

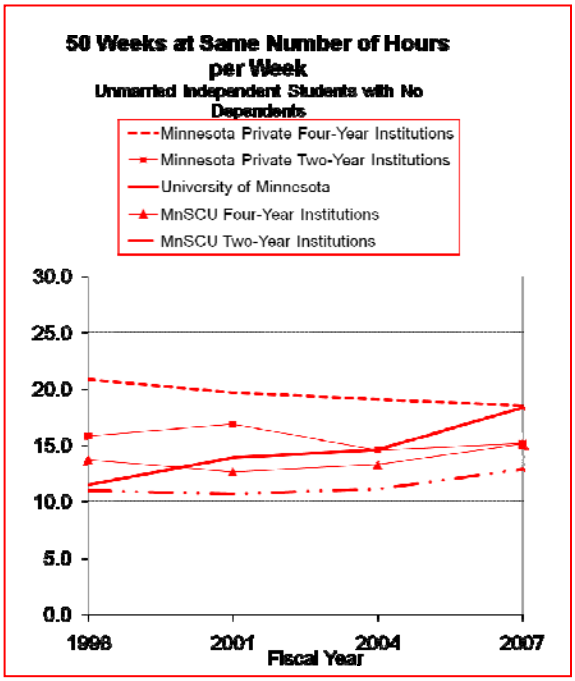
For unmarried independent students with no dependents, the average work week required to pay Assigned Student Responsibilities by working the same number of hours per week for 50 weeks per year ranged from 11 to 21 hours per week in Fiscal Year 1998 and 13 to 18 hours per week in Fiscal Year 2007, at the prices used in this analysis, as shown on the top right panel on the next page.

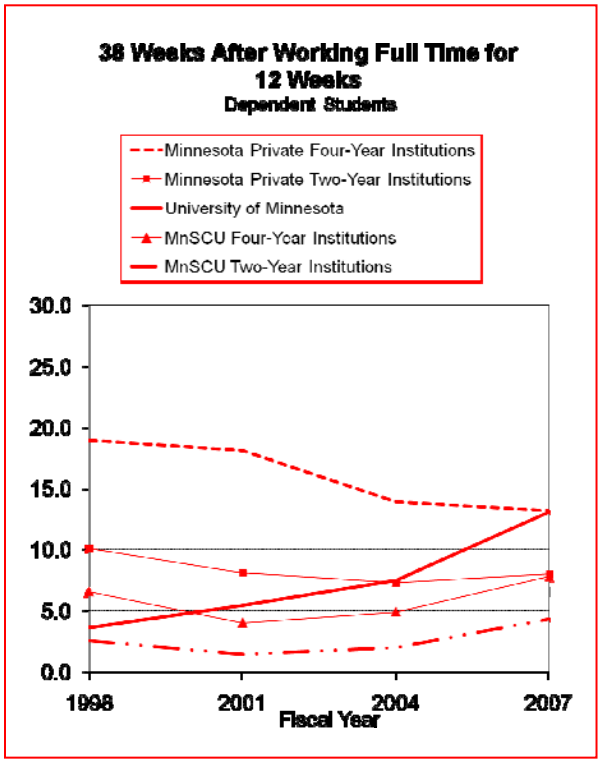
For unmarried independent students with no dependents, the average work week required to pay Assigned Student Responsibilities by working the same number of hours per week for 38 weeks per year combined with 12 weeks of full-time employment ranged from three to 19 hours per week in Fiscal Year 1998 and four to 12 hours per week in Fiscal Year 2007, at the prices used in this analysis, as shown on the bottom right panel on the next page.

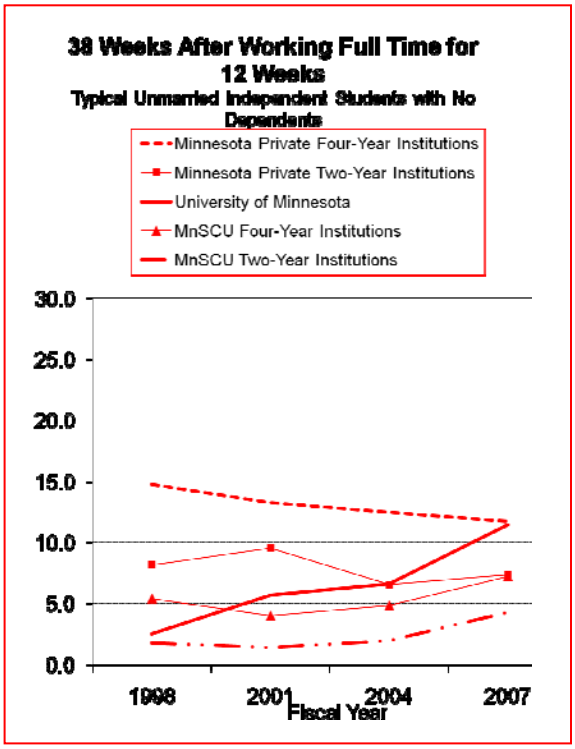
[1] Staff are examining other market based averages that might work to expand these analyses.

Average Work Week Needed to Pay Assigned Student Responsibilities at Mean Minnesota Work Study Wage









Paying Assigned Student Responsibilities with Future Income by Borrowing

This section describes how much students would have to borrow to pay their Assigned Student Responsibilities for one academic year. By borrowing, students effectively defer paying for their Assigned Student Responsibilities until after they complete their educations. Most examples are based on one year of borrowing. Thus, the monthly payment obligation for students borrowing for multiple years would be significantly higher than those shown. However, the last panels in this section show the ratio of monthly payments to income for students borrowing for multiple academic years.

Amount Borrowed

This section uses the terms of Federal Stafford Loans to examine the implications of borrowing to cover Assigned Student Responsibilities.[2] There are two kinds of federal Stafford loans, subsidized and unsubsidized. For students eligible for subsidized federal Stafford loans, the federal government pays the interest while the student is attending. Students borrowing unsubsidized federal Stafford loans accrue interest while attending.

The terms of federal Stafford loans for the four years used in this section are shown below.

Federal Stafford Student Loan Terms

Item	1998	2001	2004	2007
In-School Interest Rate (Applies to Unsubsidized Loans Only)	7.7%	7.6%	2.8%	6.8%
Repayment Interest Rate	8.2%	8.2%	3.4%	6.8%
Origination and Insurance Fees	4.0%	4.0%	4.0%	4.0%

It was assumed, for this analysis, students borrowed enough so the net proceeds (loan amount less origination and insurance fees) would cover Assigned Student Responsibilities. Since Assigned Student Responsibilities have been increasing with time, loan amounts were increasing as well, as shown in top panel on the next page. Again, these amounts were calculated to show the impact of covering Assigned Student Responsibilities with future income and were not intended to reflect current student behavior.

[2] Some students will not be eligible to borrow enough with a Federal Stafford Loan to cover Assigned Student Responsibilities. For those with a credit worthy co-signer, Minnesota SELF Loans are available to cover the amount of Assigned Student Responsibilities. For this analysis, Federal Stafford Loan terms were used.

Monthly Payments

To calculate monthly payments, the following terms were specified. A repayment period of 10 years was used. Interest for life of the loan equaled the terms in place at the time the loan contract was signed.

Generally, personal interest other than certain mortgage interest is not deductible from income reported on the federal individual income tax return. Interest paid on student loans used for higher education is an exception. Prior to tax year 2002, tax filers could deduct the annual interest paid on student loans during the tax year, but only for the first 60 months they were required to make payments. Beginning with tax year 2002, tax filers could deduct the annual student loan interest paid, including voluntary payments, until the loan is paid in full.[3]

In this analysis, it was assumed students would earn enough to fall in the lowest marginal income tax rate on their federal and Minnesota individual income tax return.

For Fiscal Year 1998:

- Monthly payments for a subsidized federal Stafford loan for one academic year, ranged from $42 to $79, as shown on the bottom left panel on the next page.

- Monthly payments for an unsubsidized federal Stafford loan for one academic year, ranged from $46 to $85, as shown on the bottom right panel on the next page.

For Fiscal Year 2007:

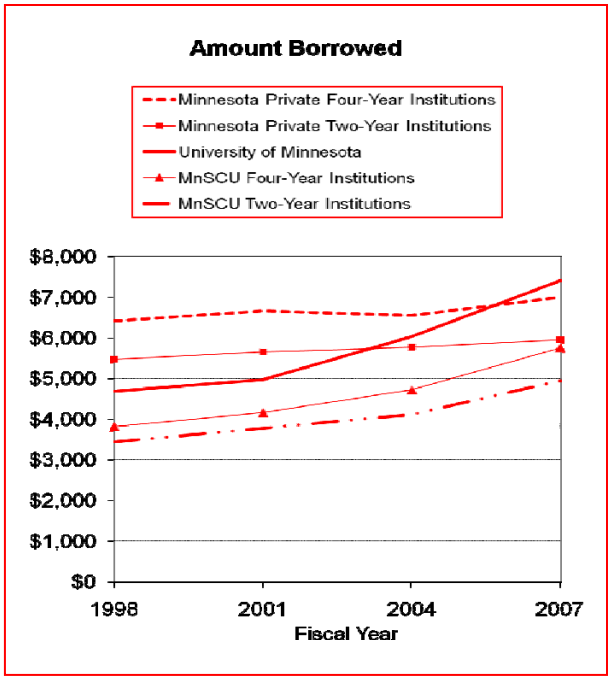
- Monthly payments for a subsidized federal Stafford loan for one academic year, ranged from $53 to $79, as shown on the bottom left panel on the next page.

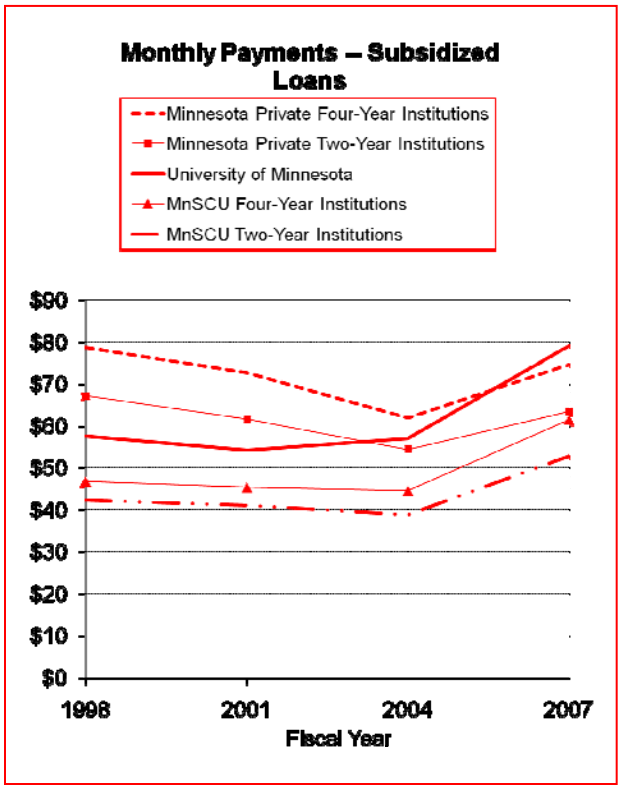
- Monthly payments for an unsubsidized federal Stafford loan for one academic year, ranged from $56 to $84, as shown on the bottom right panel on the next page.

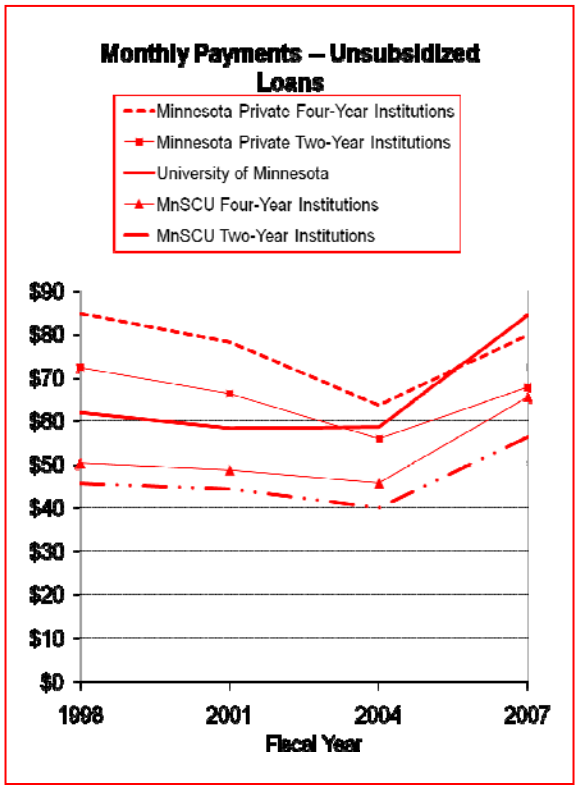
Recognized prices and the resulting Assigned Student Responsibilities increased each year examined in this analysis, Fiscal Years 1998-2007. Monthly repayment amounts did not proportionally increase because: (1) loan interest rates decreased up to Fiscal Year 2007, and (2) student loan interest was a tax deduction after 2002.

[3] IRS Publication 970 (2006), p. 24-25.

Borrowing to Cover Assigned Student Responsibilities







Payment Efforts

Another measure of the impact of borrowing on students is the ratio of their monthly loan repayment amount to their monthly income. The salaries of young Americans with at least some college experience have been increasing over time, as shown on the top panel on the next page. The analysis in this section was based on the reported earnings before deductions of Americans age 20 to 25 not currently enrolled who have at least a baccalaureate degree, as shown by the top line on the chart in the panel on the this page.

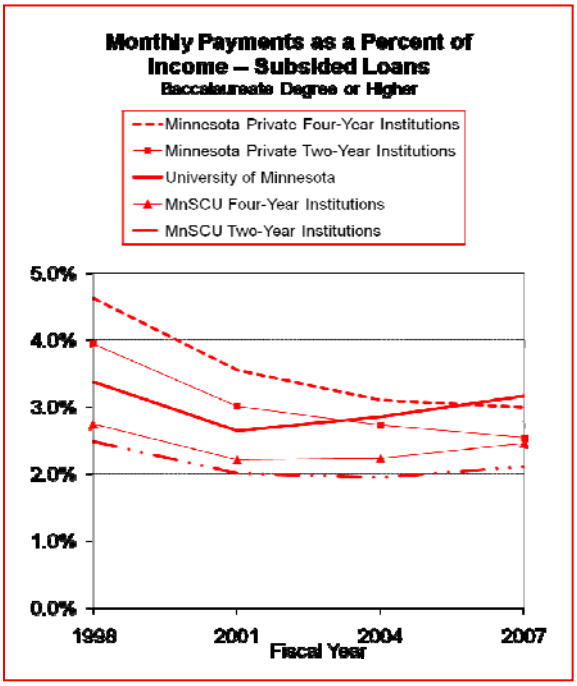
Monthly payments decreased between Fiscal Years 1998 and 2004, as shown in the prior section. The ratio of payment amounts to monthly income decreased as well, as shown on the top panel on the next page. Both payment amounts and ratios of payment amounts to monthly income increased from Fiscal Year 2004 to Fiscal Year 2007. Since the monthly payment amount is based on a Stafford Loan for only one academic year, the ratio of monthly loan repayment amount to monthly income would significantly increase for students who borrowed for multiple academic years. The chart on the next page shows the ratio of monthly loan payments to monthly income when borrowing Stafford Loans for two or four years, based on the type of institution shown. Payment to income ratios for most institutions remained relatively stable between Fiscal Years 1998 to 2008, with the exception of a decrease for private four-year institutions. For Fiscal Year 2007, the ratios ranged from 4.2 percent of income at MnSCU two-year institutions and 12.7 percent of income at the University of Minnesota for subsidized loans. Ratios were slightly higher for unsubsidized loans.

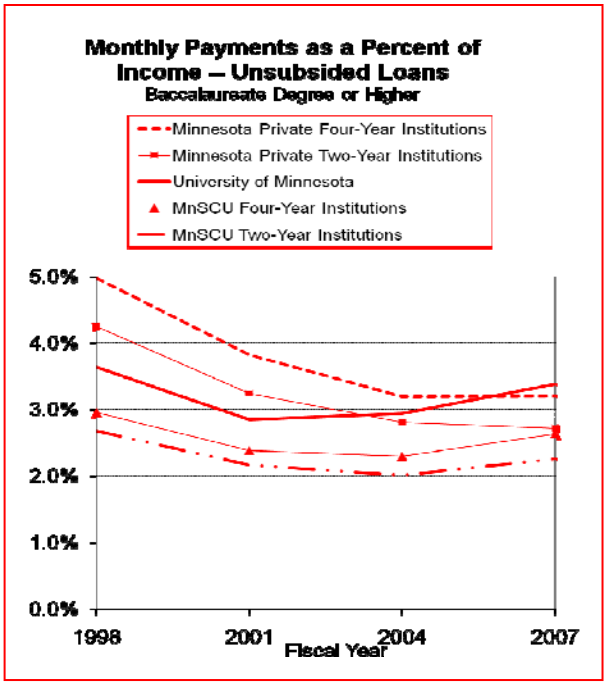
Annual Earnings for Americans Age 20 to 25 Not Enrolled in a Postsecondary Institution, 1998–2007

Source: U.S. Census Bureau, Current Population Survey, March Supplement

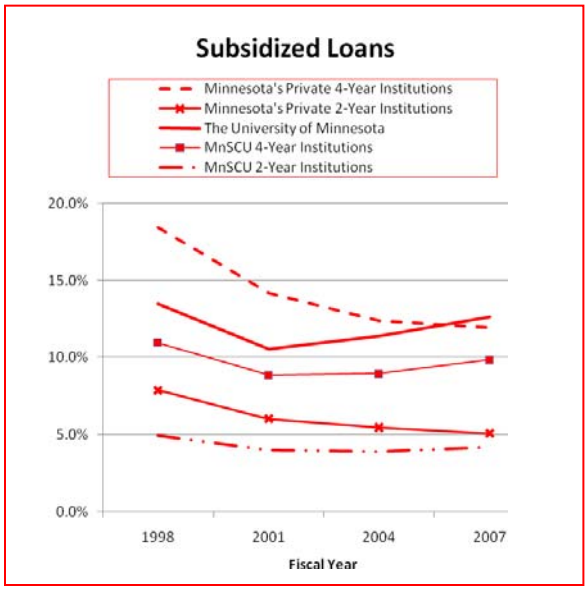
Monthly Payments as a Percent of Income of Americans Age 20 to 25 with Baccalaureate Degree or Higher

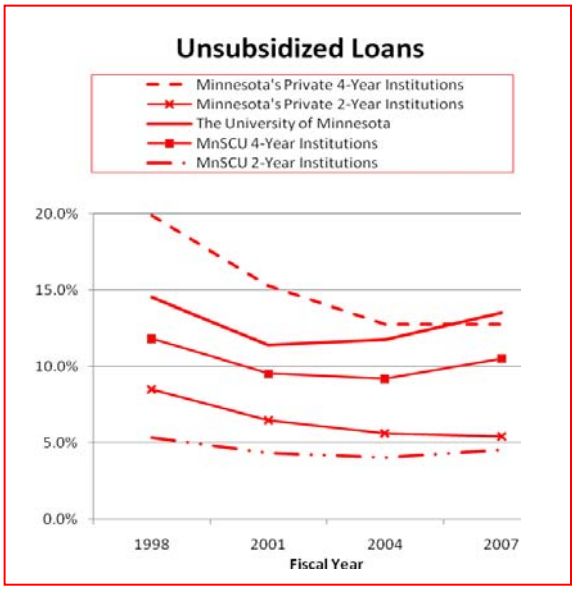
Stafford Loan for One Academic Year





Stafford Loans for Length of Degree Program





Paying Assigned Student Responsibilities with a Combination of Current and Future Income

This section describes a scenario in which students combine earnings and borrowing to cover Assigned Student Responsibilities. First, it was assumed all students borrowed an amount equal to Assigned Student Responsibilities of students attending MnSCU two-year colleges. As such, all students were assumed to borrow the same amount and students attending MnSCU two-year colleges covered their Assigned Student Responsibilities completely with borrowing. All other students were assumed to work enough to make up the difference between their Assigned Student Responsibilities and the assumed amount borrowed. The minimum wage rates, mean Minnesota Work Study wages, and Federal Stafford Loan terms used above were applied in this section.

Covering Assigned Student Responsibilities with Earnings from Minimum Wage Jobs

Dependent Students

In the first case, the average work week required by dependent students to pay Assigned Student Responsibilities by working the same number of hours per week for 50 weeks per year ranged from zero to 12 hours per week in Fiscal Year 1998 and zero to eight hours per week in Fiscal Year 2007, at the prices used in this analysis, as shown on the top left panel on the next page.

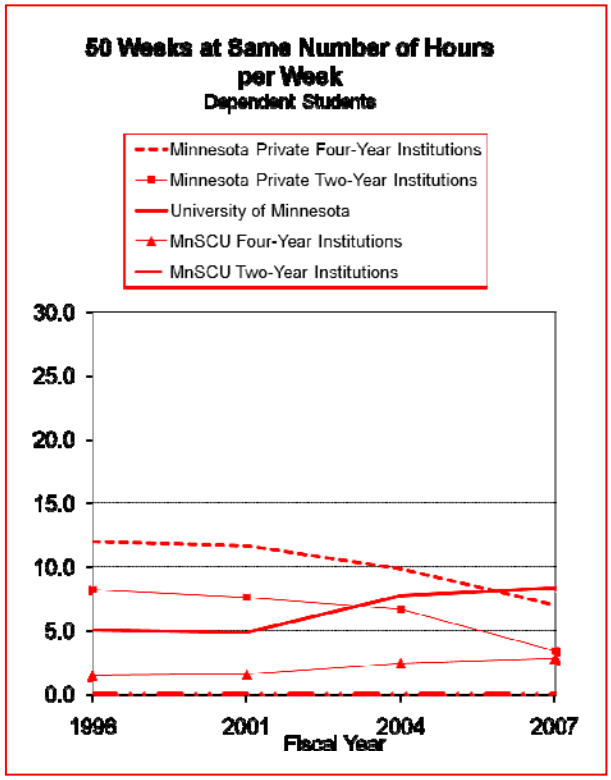
In the second case, the average work week required by dependent students to pay Assigned Student Responsibilities by working the same number of hours per week for 38 weeks per year combined with 12 weeks of full-time employment ranged from zero to three hours per week in Fiscal Year 1998 and zero to less than one hour per week in Fiscal Year 2007, at the prices used in this analysis, as shown on the lower left panel on the next page.

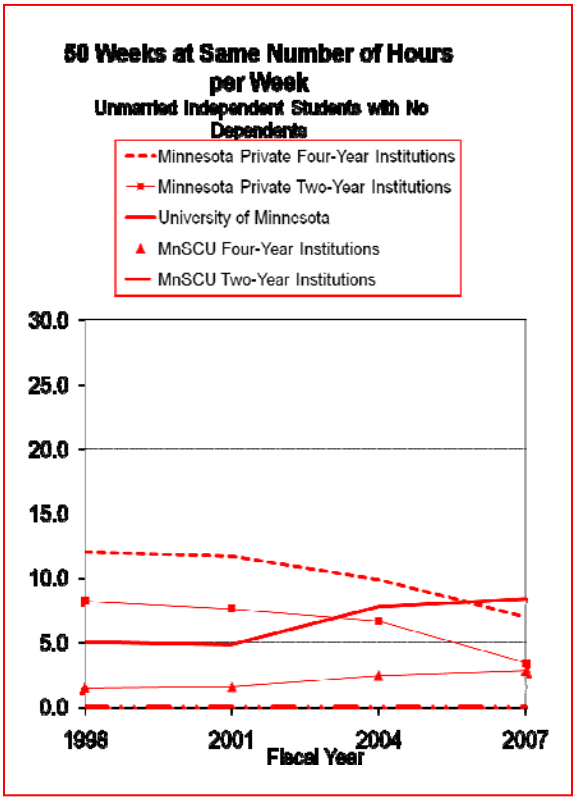
Unmarried Independent Students with No Dependents

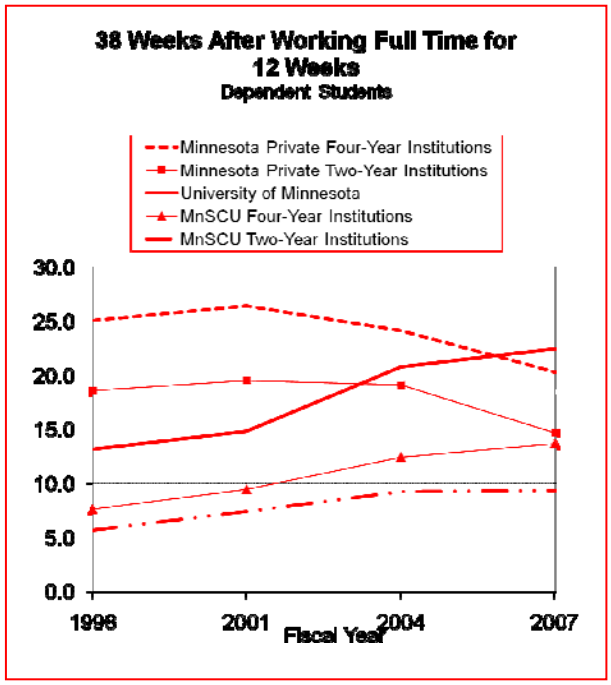
In the first case, the average work week required by unmarried independent students to pay Assigned Student Responsibilities by working the same number of hours per week for 50 weeks per year ranged from zero to three hours per week in Fiscal Year 1998 and zero to eight hours per week in Fiscal Year 2007, at the prices used in this analysis, as shown on the top right panel on the next page.

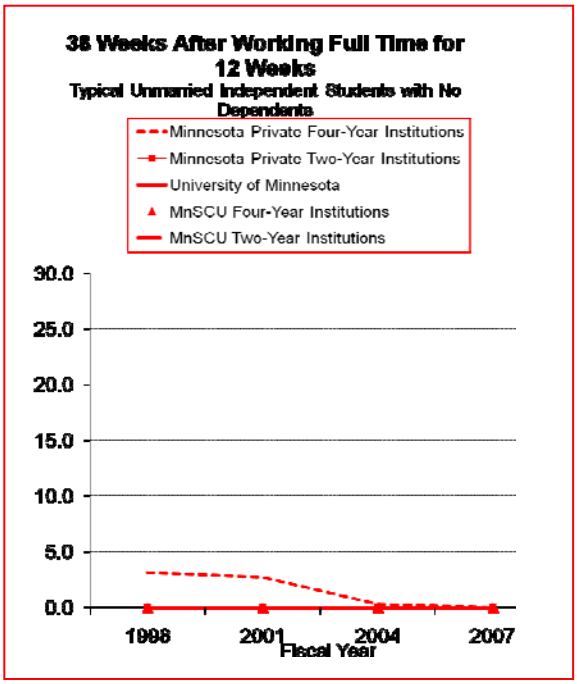
In the second case, the average work week required by unmarried independent students to pay Assigned Student Responsibilities by working the same number of hours per week for 38 weeks per year combined with 12 weeks of full-time employment ranged from zero to three hours per week in Fiscal Year 1998 and zero hours per week in Fiscal Year 2007 at the prices used in this analysis, as shown on the bottom right panel on the next page.

Average Work Week Needed to Pay Assigned Student Responsibilities at Minimum Wage









Covering Assigned Student Responsibilities with Earnings from Jobs Paying Mean Minnesota Work-Study Wages

Dependent Students

In the first case, the average work week required by dependent students to pay Assigned Student Responsibilities by working the same number of hours per week for 50 weeks per year ranged from zero to 10 hours per week in Fiscal Year 1998 and zero to six hours per week in Fiscal Year 2007, at the prices used in this analysis, as shown on the top left panel on the previous page.

In the second case, the average work week required by dependent students to pay Assigned Student Responsibilities by working the same number of hours per week for 38 weeks per year combined with 12 weeks of full-time employment ranged from zero to 0.1 hours per week in Fiscal Year 1998 and zero hours per week in Fiscal Year 2007, at the prices used in this analysis, as shown on the bottom left panel on the previous page.

Unmarried Independent Students with No Dependents

In the first case, the average work week required by unmarried independent students to pay Assigned Student Responsibilities by working the same number of hours per week for 50 weeks per year ranged from zero to 10 hours per week in Fiscal Year 1998 and zero to six hours per week in Fiscal Year 2007 at the prices used in this analysis, as shown on the top right panel on the previous page.

In the second case, the average work week required by unmarried independent students to pay Assigned Student Responsibilities by working the same number of hours per week for 38 weeks per year combined with 12 weeks of full-time employment ranged from zero to 0.1 hours per week in Fiscal Year 1998 and zero hours per week in Fiscal Year 2007, at the prices used in this analysis, as shown on the bottom right panel on the previous page.

- For students working full-time during the summer, weekly hours for the remaining 38 weeks of the year ranged from four hours per week (MnSCU two-year institutions) to 13 hours per week (University of Minnesota) for dependent students and four hours per week (MnSCU two-year institutions) to 12 hours per week (University of Minnesota) for independent students. If students work the same number of weekly hours for 50 weeks per year, the weekly hours ranged from 13 hours per week (MnSCU two-year institutions) to 20 hours per week (University of Minnesota) for dependent students and 13 hours per week (MnSCU two-year institutions) to 18 hours per week (University of Minnesota) for independent students.

Interaction of Assigned Student and Family Responsibilities for Unmarried Independent Students with No Dependents

The Design for Shared Responsibility distributes the Recognized Price of Attendance among students, families and, if necessary, taxpayers. Assigned Student Responsibilities are assigned to all students. This assignment is based on the economic benefits of receiving a postsecondary education. Assigned Family Responsibilities for dependent students are based on parents' incomes and net worth.

Assigned Family Responsibilities for independent students are based on students' incomes and net worths. In effect, independent students assume the responsibility assigned to parents of dependent students once they qualify as independent students.

Some independent students do not have any Assigned Family Responsibilities because the Federal Need Analysis, used in the Minnesota State Grant Program, shelters enough of their income through an Income Protection Allowance. Some students using earnings to pay for their Assigned Student Responsibilities, however, will generate Assigned Family Responsibilities.

This section shows how many more hours of work per week unmarried independent students with no dependents would have to work to earn enough to cover their Assigned Student Responsibilities and any Assigned Family Responsibilities generated by those earnings. Two financing strategies were considered: (1) cover all of Assigned Student Responsibilities with earnings, and (2) cover the difference, if any, between their Assigned Student Responsibilities and a loan that covers Assigned Student Responsibilities of students attending MnSCU two-year colleges. These parallel the analysis presented above.

In this section, target net earnings were defined as follows:

Target Net Earnings =	(Wage Rate * Hours Worked) - Federal Income Tax Liability - Minnesota State Income Tax Liability - FICA and Medicare Tax - **Assigned Family Responsibility**.
Target net earnings =	Assigned Student Responsibility for each prototype student.
Wage rates =	Average Minnesota Work-Study wage rate.
Assigned Family Responsibility =	Amount associated with earnings calculated in Target Net Earnings equation.

The results for unmarried independent students with no dependents working 50 weeks at the same number of hours per week are shown on the upper left hand panel on the next page. The results for these students are:

- Unmarried independent students with no dependents attending MnSCU two-years, MnSCU four-year institutions and Minnesota private two-year institutions would not have had to work more hours per week.

- Unmarried independent students with no dependents attending the University of Minnesota would have had to increase the number of hours worked per week by 2.4 hours, from 18.3 to 20.7 hours.

- Unmarried independent students with no dependents attending Minnesota private four-year institutions would have had to increase the number of hours worked per week by 1.7 hours, from 18.5 to 20.2 hours.

The results for independent students with no dependents working 38 weeks after working full time for 12 weeks are shown on the lower left hand panel on the next page. The results for these students follow.

- Unmarried independent students with no dependents attending MnSCU two-years and MnSCU four-year institutions and Minnesota private two-year institutions would not have had to work more hours per week.

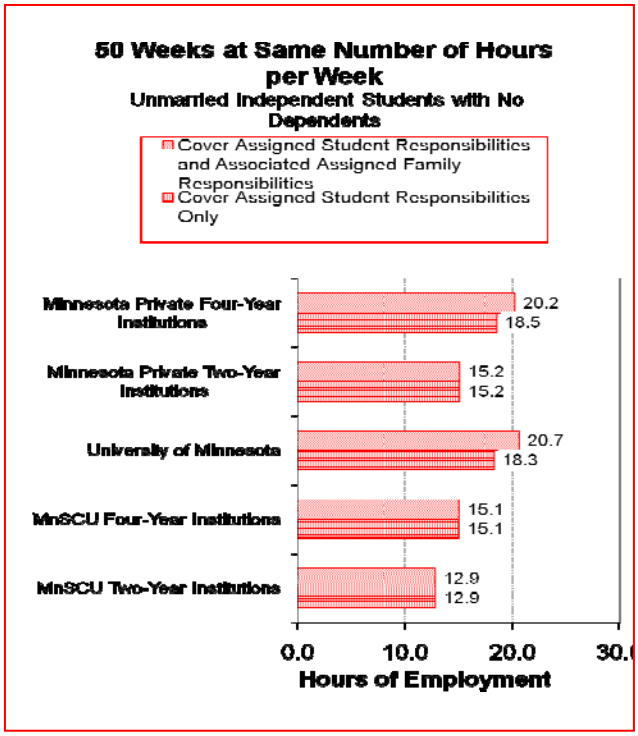
- Unmarried independent students with no dependents attending the University of Minnesota would have had to increase the number of hours worked per week by 3.1 hours, from 11.5 to 14.6 hours.

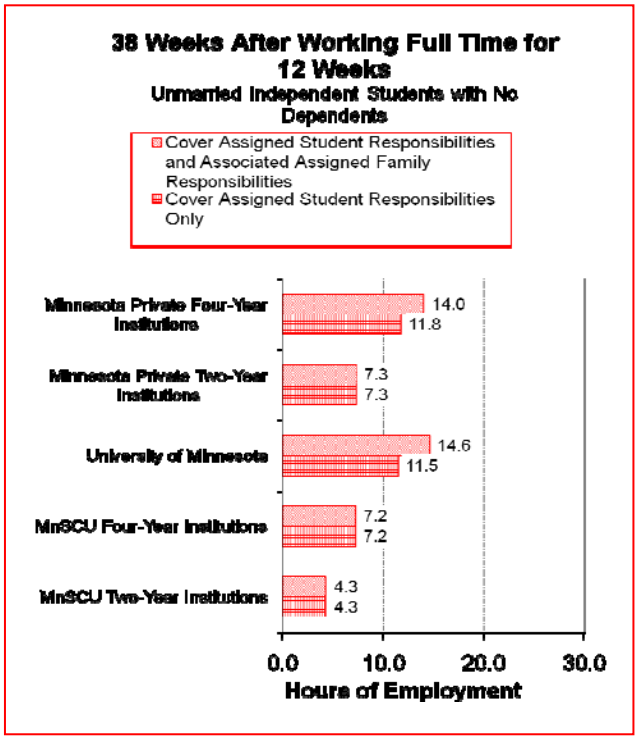
- Unmarried independent students with no dependents attending Minnesota private four-year institutions would have had to increase the number of hours worked per week by 2.2 hours, from 11.8 to 14.0 hours.

The results for unmarried independent students with no dependents using a combination of work and borrowing are shown on the two panels on the right hand side of the next page. No additional hours of work per week were required for independent students with no dependents attending any of the institutional types.

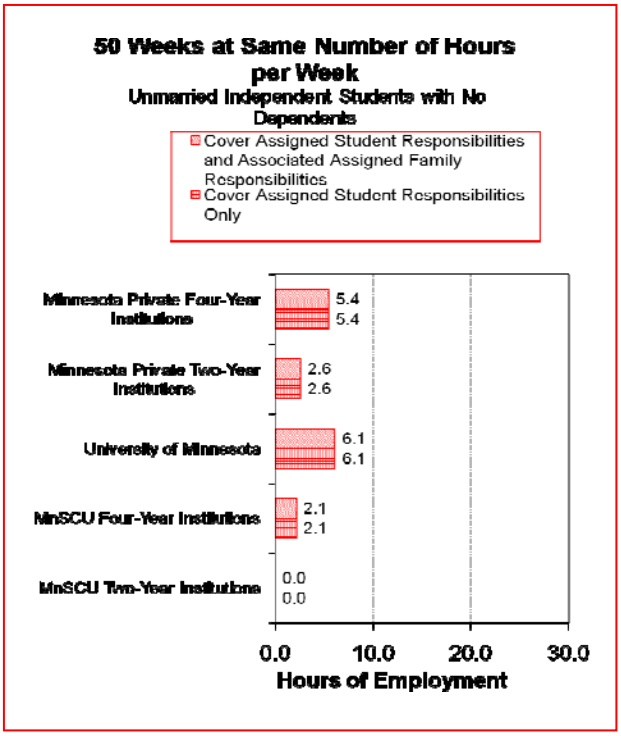
Average Work Week Needed to Pay the Assigned Student and Family Responsibilities at Average Minnesota Work Study Wage, Fiscal Year 2007

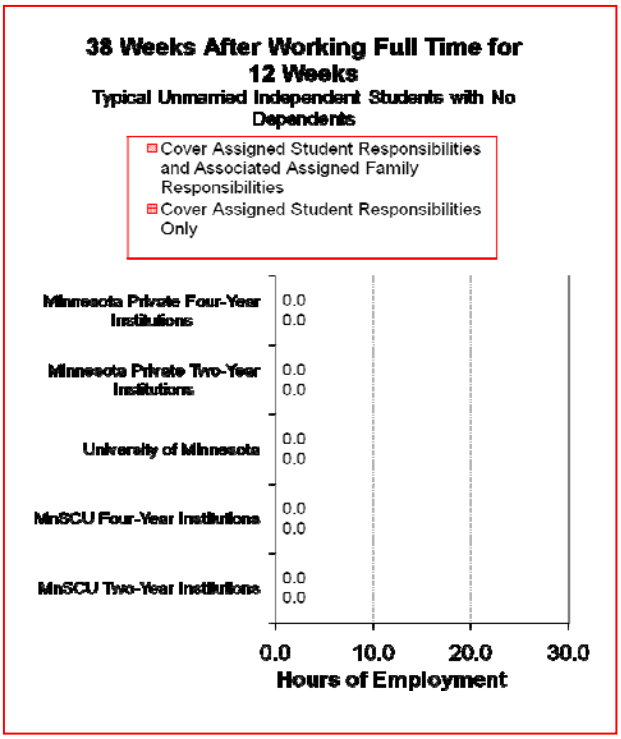
Current Income





Combined Current & Future Income





Findings

This report explores the feasibility of dependent and single independent students using employment, borrowing, or a combination of both for financing Assigned Student Responsibilities within the State Grant program. In many cases, the number of weekly hours of employment required to cover the student responsibility are reasonable, as are the monthly loan repayments for repaying student loan debt used to finance the responsibility when loan debt is limited to one academic year. However, the Assigned Student Responsibility is limited by price constraints used within the award calculation budget, such as tuition and fee maximums and a Living and Miscellaneous Allowance that may not represent realistic living expenses for most students. One possibility for further study is the ability of students or families to cover the net price remaining after gift aid is subtracted from the campus cost of attendance, which is generally considered a more realistic picture of actual educational and living costs than the award budget.

The examples in this section indicate that, for Fiscal Year 2007:

- The hours of weekly employment at minimum wage required to fund the Assigned Student Responsibility for students were manageable for students attending most institution types, but exceeded 20 hours per week for some cases, which is generally the maximum number of hours per week colleges assign for work-study jobs to avoid negative effects on academic performance.

- The hours of weekly employment at state Work-Study program wages required to fund the Assigned Student Responsibility for students were manageable for students at most types of institutions.

- When students borrow subsidized Federal Stafford Loans to cover the Assigned Student Responsibility for one academic year, the ratios of monthly loan payments to monthly incomes would generally be considered reasonable, with a range of two percent of monthly income (MnSCU two-year institutions) to 3.2 percent of monthly income (University of Minnesota). The ratios are only slightly higher for unsubsidized federal Stafford loans. However, when loan debt is increased to the amount needed to cover the Assigned Student Responsibility for two or four academic years, the ratios increased to 4.2 percent (MnSCU two-year institutions), 5.1 percent (private two-year institutions), 9.8 percent (MnSCU four-year institutions), 12 percent (private four-year institutions) and 12.7 percent (University of Minnesota).

- When students use a combination of borrowing and employment to cover the Assigned Student Responsibility, the hours of weekly employment needed to cover the remaining responsibility after the loan is applied are minimal, with a maximum of six hours per week at the minimum wage (University of Minnesota) and eight hours per week at State Work Study program wages (University of Minnesota). The amount of the loan applied was equal to the Assigned Student Responsibility at MnSCU two-year institutions.

References

Internal Revenue Service (2003). *Tax Benefits for Education* Publication 970.

Internal Revenue Service (2006). *Tax Benefits for Education* Publication 970.

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Assigned Family Efforts of Families of Dependent Students

Minnesota State Grant Review

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Table of Contents

Dr. Gerald Setter died unexpectedly in 2008 after completing most of the in-depth analysis reflected in this report. The Office of Higher Education is grateful for his thoughtful insight, hard work and nearly 30-year commitment to public service.

Introduction

This report analyzes families' payment assignments for their dependent students using the current Minnesota State Grant policy for the period, Fiscal Years 1986-2007. In *Overview of the Design for Shared Responsibility*, Assigned Family Responsibilities were defined and their role was described.

Essentially, students and their families report incomes and net worth on the Free Application for Federal Student Aid. The federal government assesses family incomes and net worth through the Federal Need Analysis and determines the Expected Family Contribution, which is what a family is expected to pay for postsecondary education. Minnesota uses the definitions and rates in the Federal Need Analysis, but alters the results when determining the Assigned Family Responsibilities used to award Minnesota State Grants. Specifically, Minnesota's Assigned Family Responsibilities do not include an assessment of or contribution from dependent student income and net worth. Further, Minnesota uses only 96 percent of the federal parent contribution.

This report analyzes Assigned Family Responsibilities as it relates to the family's income. Assigned Family Efforts are defined as Assigned Family Responsibilities divided by parental income. As such, Assigned Family Efforts reflect a measure of effort required of families to pay their Assigned Family Responsibilities. Specifically, changes for families with the highest Assigned Family Efforts, the peaks in Fiscal Years 1986 and 2007, are described. Changes in the Assigned Family Efforts for families earning the Minnesota median income for families of four and by income quintiles are also presented.

Income Associated with the 1986 Peaks

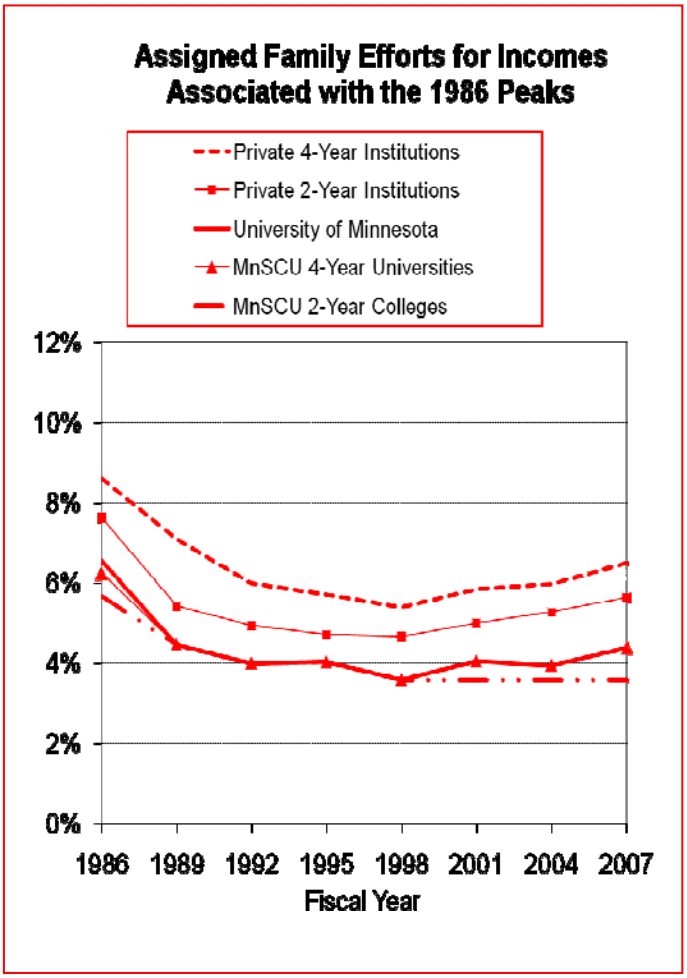
This section analyzes the change in Assigned Family Efforts at family incomes associated with peak efforts in Fiscal Year 1986. Specifically, this section answers the question, "How have families at income levels associated with peak efforts in Fiscal Year 1986 been assessed in subsequent years?" The following table describes the income groups where the peak Assigned Family Efforts occurred in Fiscal Years 1986:

Students Attending	Income Group Where the 1986 Peak Occurred
MnSCU 2-Year Colleges	$30-$35,000
MnSCU 4-Year Universities	$30-$35,000
University of Minnesota	$30-$35,000
Minnesota Private 2-Year Institutions	$35-$40,000
Minnesota Private 4-Year Institutions	$40-$45,000

The impact on families in the peak income groups in Fiscal Year 1986 is shown on the chart to the right. For example, for typical dependent students attending MnSCU two-year colleges, the Fiscal Year 1986 peak occurred at parental incomes of $30–$35,000, as shown on the table above. For families in that income group, Assigned Family Efforts decreased from 5.7 percent to 3.6 percent of adjusted gross income between Fiscal Years 1986 and 2007, as shown by the bottom line on the chart to the right.

There was a similar decrease over time for typical dependent students in the other four institutional groups, as depicted by the other lines on the chart.

Most of the change in the peaks in Assigned Family Efforts occurred early in the period, reflecting, in part, the shift downward in Assigned Family Responsibilities between Fiscal Years 1986 and 1989.

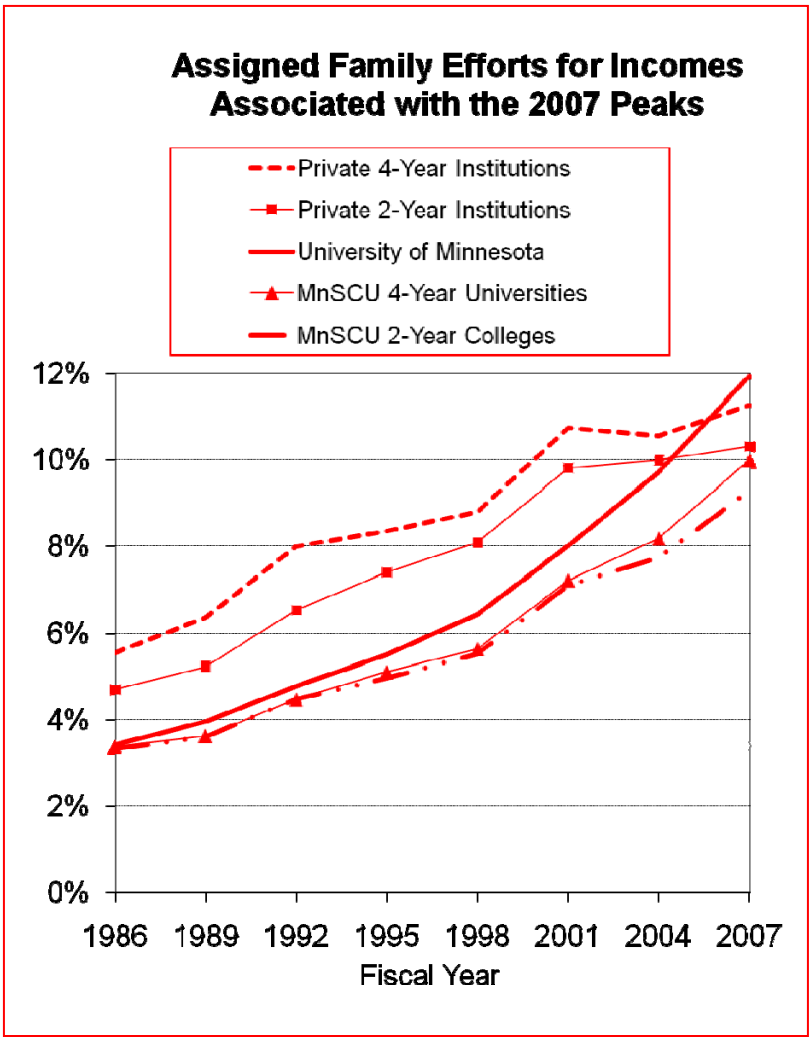


Income Associated with the 2007 Peaks

This section analyzes the change in Assigned Family Efforts at family incomes associated with peak efforts in Fiscal Year 2007. Specifically, this section answers the question, how have families at income levels associated with peak efforts in Fiscal Year 2007 been assessed in prior years? The following table describes the income groups where the peak Assigned Family Efforts occurred in Fiscal Years 2007:

Students Attending	Income Group Where the 2007 Peak Occurred
MnSCU 2-Year Colleges	$55-$60,000
MnSCU 4-Year Universities	$60-$65,000
University of Minnesota	$65-$70,000
Minnesota Private 2-Year Institutions	$60-$65,000
Minnesota Private 4-Year Institutions	$65-$70,000

The impact on families in the peak income groups in Fiscal Year 2007 are shown on the chart to the right. For example, for typical dependent students attending MnSCU two-year colleges, the Fiscal Year 2007 peak occurred at parental incomes of $55-$60,000, as shown on the table above. For families in that income group, Assigned Family Efforts increased from 3.6 percent to 9.3 percent of adjusted gross income, as shown by the bottom line on the chart to the right.



Assigned Family Efforts have increased in all but one case for families in the income ranges associated with the peak efforts in Fiscal Year 2007. The increases were a result of increasing prices. The drop between Fiscal Years 2001 and 2004 for typical dependent students attending private four-year institutions was due to the slow growth of recognized prices resulting from the small increases in state mandated Tuition and Fee Maximums during this period.

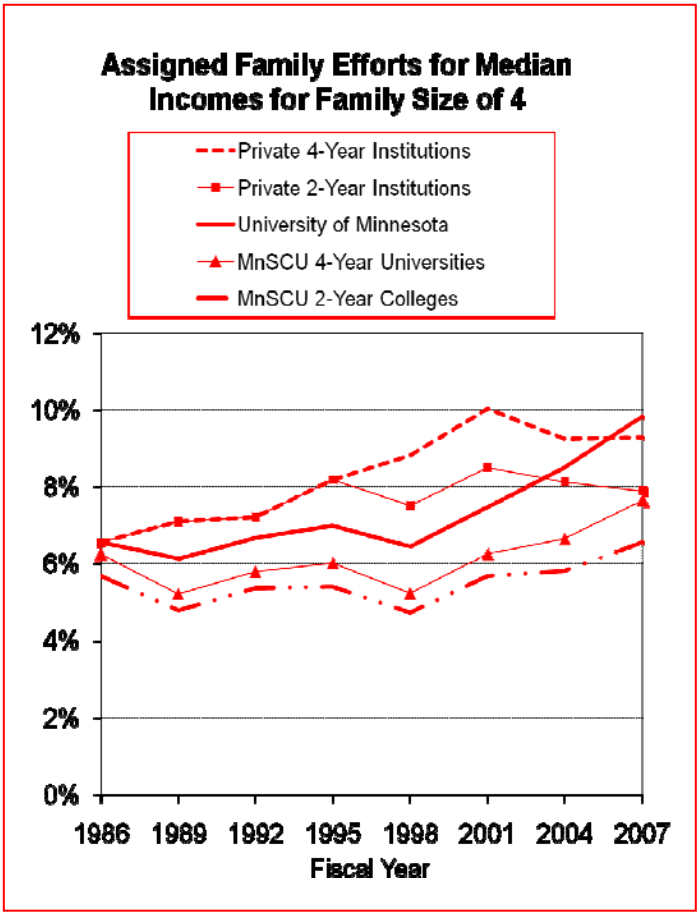
Median Income for Family Size of Four

This section analyzes the changes in Assigned Family Efforts for families at the Minnesota median income for a family size of four for the period, Fiscal Years 1986-2007. U.S. Census Bureau data for the median income for Minnesota families of four is shown in the table to the right:[1]

Fiscal Year	Median Income Household Size = 4
1986	$36,746
1989	$42,365
1992	$46,322
1995	$54,396
1998	$67,704
2001	$72,635
2004	$78,829
2007	$80,522

Assigned Family Efforts of families of four with dependent students attending MnSCU two-year colleges decreased from 5.7 percent of income for families earning $36,746 in 1986 to 4.7 percent for families earning $67,704 in 1998 and then increased to 6.6 percent in Fiscal Year 2007, as shown on the bottom line on the chart below.[2]

Assigned Family Efforts of families of four with dependent students attending Minnesota private four-year institutions increased from 6.5 percent to 10 percent between Fiscal Years 1986 and 2001 before decreasing to 9.3 percent in Fiscal Year 2007, as shown by the top line. The decrease between Fiscal Years 2001 and 2007 is due to the small state mandated increases in Tuition and Fee Maximums during this period.



[1] For 1986-2003, used the Minnesota value from the median income for four-person families, by State [www.census.gov/hhes/income/4person.html (January 13, 2006)]. For 2004, used the Minnesota value in the *Federal Register* Notice, published on February 28, 2006 (70 FR 10037-10039) [www.acf.dhhs.gov/programs/liheap/guidance/information_memoranda/im06-05.html#A (June 13, 2006)]. For 2005, used the Minnesota value reported in www.acf.hhs.gov/programs/liheap/guidance/information_memoranda/im07-02.html#atta (September 11, 2007). For 2006 and 2007, a two percent per year increase was assumed.

[2] For this analysis, family income reported by the Census Bureau was set equal to the Adjusted Gross Income used in calculating Minnesota State Grants.

Income Quintiles

This section analyzes the changes in Assigned Family Efforts by income quintiles for the period, Fiscal Years 1986-2007. Quintiles divide the income distribution into give groups with an equal number of families in each group. The one-fifth of families with the lowest incomes are in the first quintile, for example. The family with the highest income in the first quintile is at the 20th percentile of all families. The numbers in the following table represent the family with the highest income in each quintile as reported by the U.S. Census Bureau for United States' families.[3] Since the population is not limited to Minnesota, the varying changes in population and families in other states effect the values reported.[4]

Fiscal Year	20th Percentile	40th Percentile	60th Percentile	80th Percentile
1986	$14,000	$24,100	$35,120	$50,570
1989	$16,003	$28,000	$40,800	$59,550
1992	$16,713	$29,674	$44,000	$64,050
1995	$19,070	$32,985	$48,985	$72,260
1998	$21,600	$37,692	$56,020	$83,693
2001	$24,000	$41,127	$62,500	$94,150
2004	$24,772	$43,400	$65,818	$100,000
2007	$26,651	$46,840	$71,063	$107,265

For families at the 20th percentile, incomes increased from $14,000 to $26,651 between 1986 and 2007. Assigned Family Efforts for these families were at zero in 1986 and increased to one to three percent after 1995, as shown in Panel 1 on page G-9. All families, regardless of the price

[3] U.S. Census Bureau Table F-1. Income Limits for Each Fifth and Top 5 Percent of Families (All Races): 1947 to 2005 [www.census.gov/hhes/www/income/histinc/f01ar.html (August 22, 2007)]. For 2006 and 2007, it was assumed all values would increase by two percent per year.

[4] At least for 2004, it appears that Minnesota has a higher concentration of families in the middle income (40th and 60th percentiles) compared to the national distribution as shown in the following table:

Percentile	Based on National Data	Based on Minnesota Data from the American Community Survey
20th Percentile	$24,780	$29,000
40th Percentile	$43,400	$52,000
60th Percentile	$65,832	$72,000
80th Percentile	$100,000	$102,000

American Community Survey is conducted by the U.S. Census Bureau. 2004 PUMS data for Minnesota was downloaded from factfinder.census.gov/servlet/DatasetMainPageServlet?_program=ACS&_lang=en&_ts=143547961449. For further information about the American Community Survey, see www.census.gov/acs/www/.

of the institution chosen, were to the left and below the peak Assigned Family Efforts in each year between 1986 and 2007.[5]

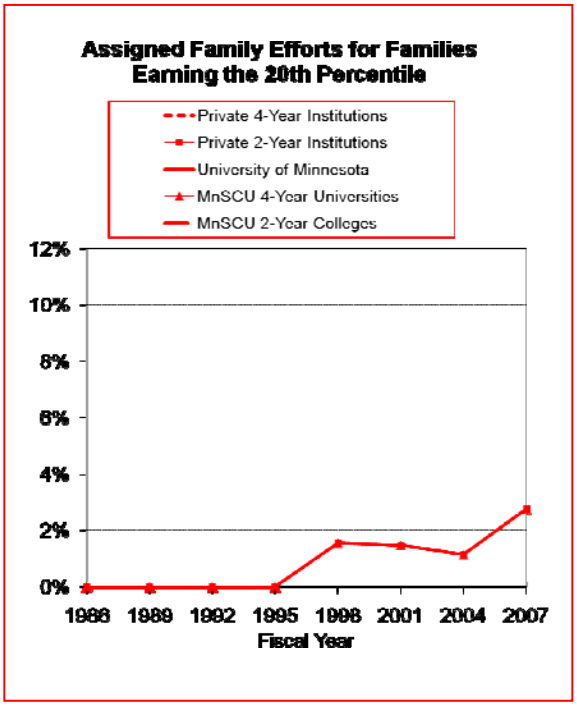
For families at the 40th percentile, incomes increased from $24,100 to $47,763 between 1986 and 2007. Assigned Family Efforts for these families decreased from about four percent to three3 percent between 1986 and 1992. From 1992 to 2007, Assigned Family Efforts rose to about eight percent, as shown on Panel 2 on the next page. All families at the 40th percentile, regardless of the price of the institution chosen, were to the left and below the peak Assigned Family Efforts in each year between 1986 and 2007.

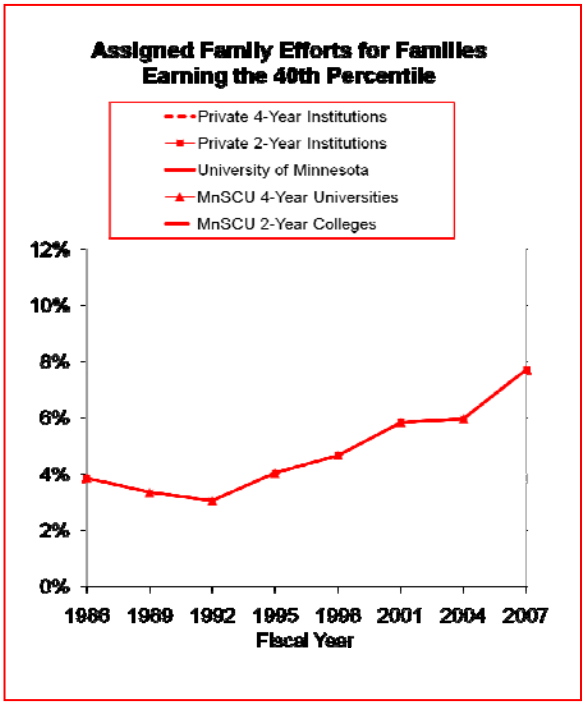
For families at the 60th percentile, incomes increased from $35,120 to $72,464 between 1986 and 2007. Assigned Family Efforts for these families decreased or remained flat until about 1998, as shown on the Panel 3 on the next page. In 1992, all families faced the same Assigned Family Effort as a chance result of the interactions of Recognized Prices, incomes, and the parameters of the Minnesota State Grant program. Assigned Family Efforts for families with students attending public institutions have generally increased since 1992. The decreases in Assigned Family Efforts for families with students attending private institutions was the result of small state mandated increases in tuition and fee maximums used to calculate Minnesota State Grants. Families at the 60th income percentile were more likely to be at or near the peak of Assigned Family Efforts than families at the other four percentiles examined regardless of the price of institution attended.

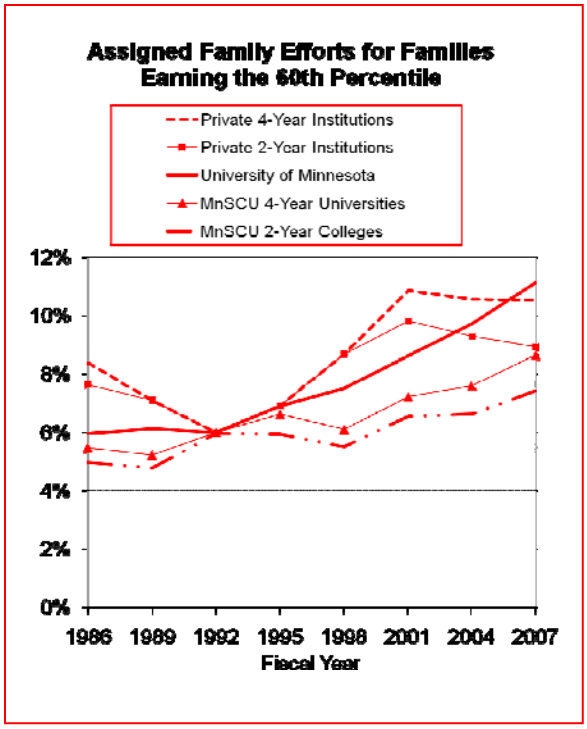
For families at the 80th percentile, incomes increased from $50,570 to $107,265 between 1986 and 2007. Assigned Family Efforts for these families with a member attending a Minnesota public institution showed modest growth over the period, as shown on Panel 4 of the next page. The volatility in Assigned Family Efforts for families with a student attending a private institution was a result of the small state mandated increases in the Tuition and Fee Maximums. Families at the 80th percentile were unlikely to receive Minnesota State Grants in any of the years unless the family was supporting a relatively large number of dependents or had other special circumstances. In any case, families at the 80th percentile were below the peak Assigned Family Efforts between 1986 and 2007.

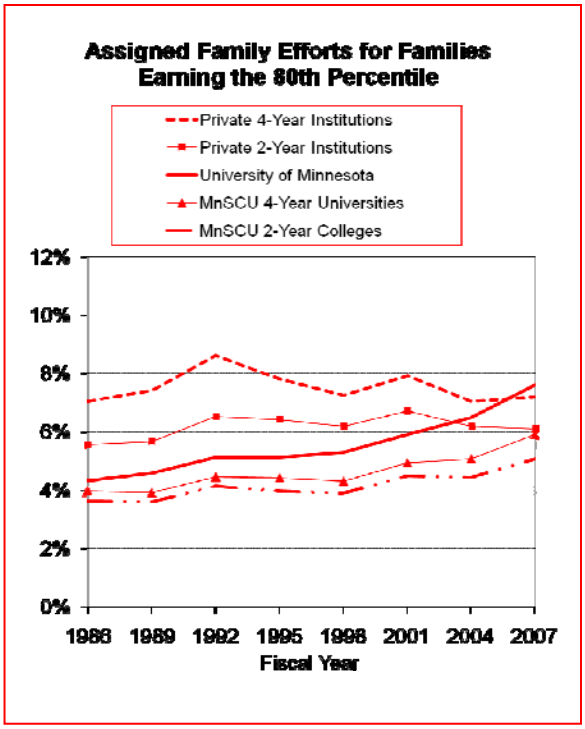
[5] As with median incomes for four-person families, for this analysis, family income reported by the Census Bureau was set equal to the Adjusted Gross Income used in calculating Minnesota State Grants.

Assigned Family Efforts for Dependent Students, 20th. 40th. 60th. and 80th Percentiles









Findings

As the price of attending Minnesota postsecondary institutions has increased since 1986, the percentage of family income needed to cover the Assigned Family Responsibility has also increased. Further, as family income increases, the share of the Recognized Price of Attendance assigned to families also increases. Since 1986, most families participating in the Minnesota State Grant program have been expected to contribute more towards college costs relative to their incomes:

- The Assigned Family Effort for a family of four with a dependent student attending Minnesota's private four-year institutions increased from 6.5 percent to 10 percent from Fiscal Year 1986 and 2001 before decreasing to 9.3 percent in Fiscal Year 2007. The decrease between Fiscal Years 2001 and 2007 is due to small increases in the state-mandated Tuition and Fee Maximums during this period.

- Since 1986, the peak Assigned Family Effort for students attending other types of institutions has increased and affected more families in the middle of the income spectrum. The peak Assigned Family Efforts for families with students attending the University of Minnesota, for example, increased from about seven percent of incomes of approximately $30,000 in 1986 to roughly 12 percent of $70,000 incomes in 2007. In both cases, the peaks occurred at incomes slightly less than the median incomes of families of four in Minnesota as well as slightly less than the 60th percentile of incomes reported for all families in the United States.

- Families at the 40th and the 60th income percentiles experienced the most dramatic increases in their Assigned Family Efforts between 1986 and 2007. For families with students attending the University of Minnesota, for example, Assigned Family Efforts increased by roughly four percentage points at the 40th percentile and nearly five points at the 60th percentile. Similar, although less dramatic, increases were observed for families with students choosing other institutions.

It is important to note that the Assigned Family Efforts examined in this section may be artificially low for many families, given the price constraints applied within the Design for Shared Responsibility. The state-mandated Tuition and Fee Maximums used to construct the price of attendance represent less than half of the actual tuition and fees charged by private institutions. Further, the Living and Miscellaneous Expense allowance set in statute is less than the federal poverty threshold and the non-tuition and fee expenses used in most campus budgets used to award other types of financial aid. Without these price constraints, Assigned Family Efforts would be higher than those shown in this section.

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Higher Education Affordability

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Introduction

In 2004, the Minnesota Legislature and Governor Tim Pawlenty directed the Minnesota Office of Higher Education to provide increased accountability information on Minnesota's higher education sector and report findings annually (Higher Education Finance Bill, *Laws of Minnesota, 2005-2007*, Chapter 144, Article 1). As a result of this mandate, the Minnesota Office of Higher Education receives an annual appropriation to support higher education accountability research and reports. Stakeholders who participated in an initial series of meetings in 2005 and 2006 identified *affordability* as a key component of accountability. Providing access, affordability and choice is now one of five goals comprising the state's higher education agenda.

Why is the public concerned about the affordability of higher education?

Tuition and fees have increased consistently in recent years. At the same time, higher education has become increasingly important for individual success in a global, high-technology economy.

Average Annual Full-time Undergraduate Resident Tuition and Fees

Academic Year	University of Minnesota- Twin Cities		MnSCU State Universities		MnSCU Two-Year Colleges		Private 4-Year Colleges	
	Current $	Constant $	Current $	Constant $	Current $	Constant $	Current $	Constant $
1993-1994	$3,421	$4,870	$2,521	$3,589	$1,950	$2,776	$11,890	$8,352
1994-1995	$3,583	$4,967	$2,641	$3,661	$1,954	$2,709	$12,412	$8,954
1995-1996	$4,113	$5,541	$2,721	$3,666	$2,066	$2,783	$13,031	$9,673
1996-1997	$4,410	$5,790	$2,730	$3,584	$2,079	$2,729	$13,663	$10,407
1997-1998	$4,503	$5,800	$2,810	$3,619	$2,126	$2,738	$14,450	$11,218
1998-1999	$4,621	$5,842	$2,944	$3,722	$2,233	$2,823	$15,381	$12,166
1999-2000	$4,650	$5,719	$3,064	$3,768	$2,343	$2,882	$15,883	$12,914
2000-2001	$4,877	$5,818	$3,258	$3,887	$2,480	$2,958	$16,624	$13,935
2001-2002	$5,536	$6,462	$3,604	$4,207	$2,757	$3,218	$17,569	$15,052
2002-2003	$6,430	$7,363	$4,088	$4,681	$3,026	$3,465	$19,014	$16,605
2003-2004	$7,344	$8,206	$4,636	$5,180	$3,382	$3,779	$20,043	$17,937
2004-2005	$8,263	$8,962	$5,242	$5,685	$3,769	$4,088	$21,467	$19,793
2005-2006	$8,855	$9,297	$5,521	$5,796	$3,984	$4,183	$22,782	$21,700
2006-2007	$9,410	$9,588	$5,895	$6,007	$4,255	$4,336	$24,400	$23,946
2007-2008	$10,084	$10,084	$6,175	$6,175	$4,432	$4,432	$25,237	$25,237
% Change 1993-94 to 2007-08	**195%**	**107%**	**145%**	**72%**	**127%**	**60%**	**112%**	**202%**

Current dollars represent resident undergraduate tuition and fees for 30 semester or 45 quarter credits used by the Minnesota Office of Higher Education in the Minnesota State Grant Program.

MnSCU State University averages are weighted averages based on resident Full-Year Equivalent enrollment. MnSCU two-year averages are straight averages prior to 1996-1997 and weighted averages thereafter. Private four-year averages are straight averages for the 17 Minnesota Private College Council member campuses. Constant Dollars based on Consumer Price Index (All Urban) through 2007, with 2008 estimated and converted to fiscal years to conform to academic years. United States Department of Labor, Bureau of Labor Statistics.

Per Capital Personal Income: United States Department of Commerce, Bureau of Economic Analysis, converted to fiscal years to conform to academic years.

Minnesota and the federal government are committed to providing higher education opportunities for all citizens.[1] Taxpayer-funded need-based state and federal financial aid have been available for the past forty years; however, there is growing concern about the rapidly increasing price of a college education. Students, parents, policy makers and higher education leaders have expressed concern that even with available financial aid, college may be unaffordable for some students.

Some indicators of the problem include the following:

- "Over the last 25 years, average tuition and fees have increased at a faster rate than inflation, per capita personal income, consumer prices, prescription drugs, and health insurance. Since 1981-1982 the national rate of tuition and fee increases has been more than twice that of the CPI." (Wellman, 2006)

- "Low and moderate family incomes have had modest increases during the same period." (College Board, 2002-06)

- "Families have paid recent price increases partly with a substantial amount of student and family debt." (College Board, 2002-2006) Over half of Minnesota undergraduates in 2003-2004 took out loans to finance part of their college expenses. (Minnesota Office of Higher Education, 2007)

- "Stagnation in family incomes during a period of rapid escalation in college prices has increased reliance on grants and loans to finance higher education." (The College Board, 2007)

- "The average increases in grant dollars between 1996-1997 and 2006-2007 covered an average of about a third of the increase in private college tuition and fees, and half of the increase in average public four-year college tuition and fees." (The College Board, 2007)

- "Public opinion polls show growing concern about college costs and accountability, threatening to erode otherwise generally favorable views about higher education." (Winston and Associates, 2006)

- In Minnesota, enrollments continue to rise even during this period of substantial increases in postsecondary prices; thus, students are paying the price in some manner. The concern is that some students will not be able to continue to do so.

[1] Minnesota Statutes 2007, 136A.095.

Causes of Increasing Prices and Costs: National studies, reports and trends

A number of national studies and reports document the increases in higher education costs and prices during the past 20 years. The studies have identified the following as causes of these increases:

- "The single biggest trend affecting higher education finance has been the incremental shifting of the responsibility for financing higher education from taxpayers to students and families, driven by changing state and federal spending priorities." (Johnstone, 2003, 2005).

- "If enrollment grows over the next decade, the additional students will come predominantly from low-income families who are the first in their family to go to college. These families tend to be in the lowest income quartile." (Desouchers, 2005, NCPPHE 2005) In Minnesota the number of high school graduates is declining. Thus, postsecondary enrollment is likely to decline unless the enrollment of students from the lowest income quartile increases.

- Student need-based financial aid has increased, but not nearly enough to keep pace with the increases in tuition and fees. The primary increase in financial aid has been in the form of subsidized student loans. (College Board, 2006; Johnstone 2005)

- "Data from the Integrated Postsecondary Education Data System (IPEDS) indicate that institutional increases in cost are driven mainly by institutional spending on administration, research and merit-based institutional grants[2] to students to improve competitive position." (Wellman 2006, Winston 2002, Clotfelter, 1996)

- There are questions about productivity. "Per student costs in higher education generally rise faster than unit costs in the general economy owing to the traditional resistance on the part of academia (institutions and faculty alike) to measures that would increase productivity by substituting capital for labor or by shedding existing, but lower priority, programs and their associated labor costs." (Johnstone, d. 2003)

[2] The word "grants" is used to include grants-in-aid, scholarships and other gift aid to students.

Previous Minnesota Reports

The issue of affordability for Minnesota students has been addressed in a number of previous studies.

In 1992 The Minnesota Commission on Postsecondary Education issued a report, *At the Crossroads: Higher Education in Minnesota,* which recommends that "financial access should be maintained with cost containment strategies, tuition levels and financial aid that will keep postsecondary education affordable for students and their parents."

In 1994 the *Report of the Minnesota Financial Aid Task Force* expressed concern about affordability and access for low-income students and families, and stated that "the single most important statement from the Task Force, therefore, is that changes should be made in the operation of the State Grant program which will improve grant stipend treatment for qualified students of very low income… Postsecondary attendance costs as a percentage of family income in Minnesota are highest for low-income students, even after considering grant aid received from all sources. This holds true for all types of public and private colleges. …Even for the very lowest income students, grants from all sources do not on average meet more than 40 percent of the cost of attendance at four-year colleges."

In 1998 the Minnesota State Planning Agency published *Balancing the Books: Affording College in Minnesota.* The study found that:

- "Responsibility for funding higher education is divided between students, families and taxpayers. The taxpayer share is decreasing, and the student and family shares are increasing."

- "As tuition and fees increase faster than family income, families and students, especially middle income families, are having an increasingly difficult time paying for higher education."

- "There is increased use of student and family loans to pay for higher education."

In 2006, the Minnesota Office of Higher Education published the *Minnesota State Grant Review 2006* in which the following questions were addressed:

Are the financial expectations placed on dependent students appropriate?

- The State Grant framework assigns 46 percent of the price of attendance to students. While dependent students in the lowest income category are typically assigned no additional share of the recognized price beyond the 46 percent student share, questions have been raised about the capacity of these students to pay the expected student share. These students often face multiple barriers to enrollment and may benefit from additional support.

- The State Grant framework assigns a portion of the price of attendance to the families of dependent students. Current data suggest that families whose incomes are at or just below the mean income for the state are paying the highest percentage of their adjusted gross incomes (about 11 percent) to cover the assigned family responsibility. Families in the lowest income category (below $25,000) are typically assigned no additional share of the price of attendance beyond the 46 percent student share assigned to all students. Families with annual incomes over $100,000 are typically expected to pay an amount equal to six percent of their adjusted gross income toward the cost of education.

Are the financial expectations placed on independent and part-time students appropriate?

- While the treatment of independent and part-time students is grounded in sound policy, the financial expectations placed on these older, non-traditional students may discourage some from enrolling in college due to financial concerns. The typical full-time independent student earning more than $25,000 to $35,000 receives no Pell or State Grants. (The threshold depends on the institution attended.)

Data and Methodology

The prices students encounter depend upon a number of variables, including:

- **Student characteristics**. Is the student dependent or independent? What is the student's annual income? If relevant, what is the spouse and/or parents' annual income? Is the student attending full-time or part-time? How many hours/week is the student working? This report examines the issue of affordability separately for dependent and independent students, and for full-time and part-time students. It will also consider the family income distribution of Minnesota undergraduates.

- **Institutional type and price**. What is the official, posted, tuition and fees "sticker" price of attending a particular type of postsecondary institution?

- **Other Educational Expenses**. What expenses other than tuition and fees are included in the student's price of attending a postsecondary institution? Books? Equipment and Supplies? Housing? Food? Transportation? Clothes? This report uses U.S. Census data from the Consumer Expenditure Survey for expenses for books, equipment and supplies, housing, food, transportation and other expenses of attending postsecondary education. The survey analyzed interview data on expenditures of college students aged 18 to 22 who were enrolled on a full-time basis. The data was for the 1996-1998 period. The data included expenses for food; shelter and utilities, apparel and services, transportation, health care, entertainment and travel. Average total expenses for students were $2,584 per quarter (three calendar months). This figure was multiplied by three to arrive at an estimate for the nine-month academic year. The result was adjusted from 1997 dollars to 2007 dollars using the consumer price index. The final estimate was $10,000 for all non-tuition expenses of attending postsecondary education in the 2006-2007 academic year.[3]

- **Grants and Other Direct Financial Support**: How much financial aid has the student received that directly reduces the "sticker price" for the student? Federal grants? State grants? Institutional grants? Private grants? Tax benefits?

- **Student preparation.** Students who have demonstrated strong academic success or specific talent in high school may be eligible for significantly more institutional aid.

The following pages present net price in a variety of ways. The methodology and assumptions for arriving at these analyses include the following:

- **Need-based aid.** This report uses a simulation of Pell and State Grants for dependent students and single independent students for the 2006-2007 aid year. The measure of institution grants uses the average dollar amount (including zeroes) for all U.S. undergraduates in 2003-2004 by $5,000 income bands by sector, and actual national data

[3] In contrast, the current LME used for financial aid calculations in FY 2007 was $6,065. More recent student expenditure data were compiled and analyzed after this report was done. The data from 2000-2005 indicate that the $10,000 estimate is still good.

on distribution of institutional grants by income. This understates the percent receiving grants and average amount of grants for students at Minnesota not-for-profit four-year institutions. Therefore the average grant amount for each income category was adjusted to reflect differences between average institution, private and employer grants to Minnesota undergraduates and national averages.

For example, grants from private not-for-profit postsecondary institutions to undergraduates were 16 percent higher in Minnesota, on average, than the national average, so the national average institution grant to students in the private not-for-profit sector for each income category was multiplied by 1.16.

- **Affordability index.** The affordability index shown on pages 16-18 shows the net price of attendance as a percentage of income. For dependent students, the parent's income is used. For independent students, the student's income is used.

- **Net price of attendance.** This report uses a net price of attendance as one indicator of affordability. The net price of attendance equals the institutional "sticker price" plus $10,000, a measure of non-tuition expenses related to attending, less all grants and tax benefits.

  Net price is calculated in several steps:

  1. It begins with the gross price which is the sum of tuition and fees and an allowance for all non-tuition expenses associated with attending postsecondary education.
     a. Tuition and fees are the average actual tuition and fees charged by the institutions.[4]
     b. Non-tuition expenses are a standard $10,000 based on an analysis of Consumer Expenditure Survey interview data on expenditures of 18 to 24 year old students. The $10,000 amount is intended to include expenses for books, food, shelter, transportation and other expenses and is calculated as described in the methodology section above.

  2. Several discounts to the gross price were then subtracted:
     c. Federal Pell and Minnesota State Grants were calculated for each income group, using standard Office of Higher Education protocols.
     d. Institution grants, employer grants, and private grants were based on data from the 2004 cycle of the National Postsecondary Student Aid Study, adjusted as described in the methodology section above.
     e. Federal Hope Tax Credits were estimated and subtracted for each income group.

[4] The tuition and fee amount for private not-for-profit institutions is the weighted average tuition and fee amount, $25,869, for example.

3. The *Net Price of Attendance* does not include loans. Loans enable many students to pay for college expenses.[5] Students perceive loans differently than grants, discounts, scholarships, waivers and tax benefits.

Definitions and Background

Before drawing any conclusions regarding the affordability index data, it is useful to look at how Minnesota undergraduate student enrollment and income are distributed across the student types, full-time/part-time, and dependent/independent. IPEDS defines full-time and part-time students as follows:

Full-time undergraduate is a student enrolled for 12 or more semester credits, or 12 or more quarter credits, or 24 or more contact hours a week each term.

Part-time undergraduate is a student enrolled for either 11 or fewer semester credits, or 11 or fewer quarter credits, or fewer than 24 contact hours per week each term.

Dependent undergraduate is less than 24 years old and is considered dependent for financial aid purposes unless the student meets one of the criteria for independence described below.

Independent undergraduate is 24 years or older and is considered financially independent of their parents for financial aid purposes, regardless of their parents' incomes and whether or not their parents provide them with any financial assistance. Undergraduates with dependents of their own are considered financially independent of their parents regardless of their age. Spouses count as dependents. For purposes of determining eligibility for financial aid, a married independent student's family income includes the student's and his or her spouse's income.

Undergraduate Enrollments and Income Distribution

Figure 4 below illustrates the distribution of Minnesota undergraduates across the student categories of full-time/part time, and Figure 5 shows how full time/part time are distributed across the independent/dependent student types *(*NCES 2003-2004 data).

- Full-time dependent students comprise one third (35.3 percent) of Minnesota undergraduates. These students are concentrated in the upper end of the income scale; 47.5 percent have family incomes of $80,000 and above.
- Two thirds of undergraduates are either part-time or independent or both.
- Students who attend part time or for only part of the year outnumber full-time students 54.2 percent to 45.8 percent.

[5] The percentage of students who borrow and the average amount borrowed are important policy considerations. However, they will not be included in this analysis. For more information on borrowing by Minnesota students, please see the agency publications [Undergraduate Borrowing in Minnesota (January 2006) and Factors Related to Undergraduate Borrowing (September 2007).]

Figure 1

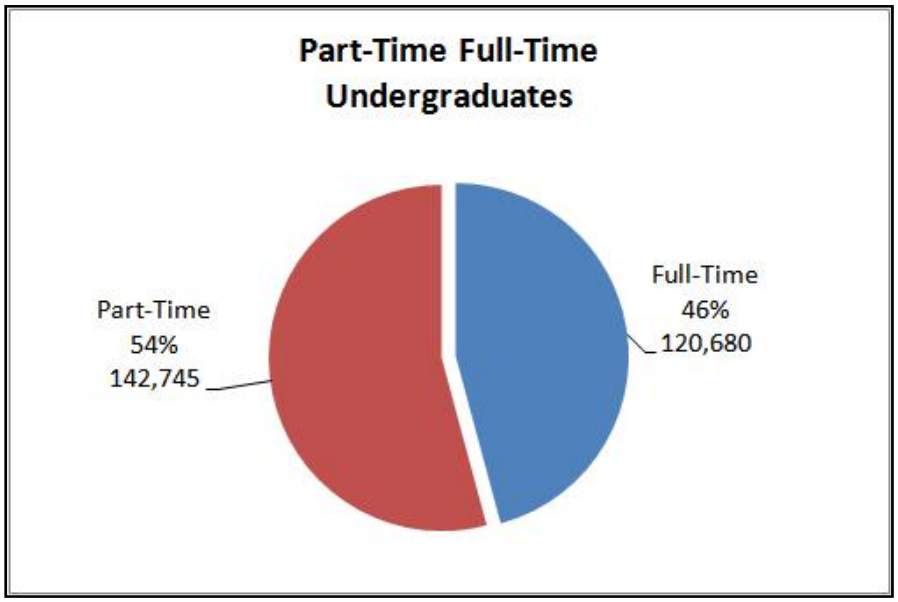

Figure 2

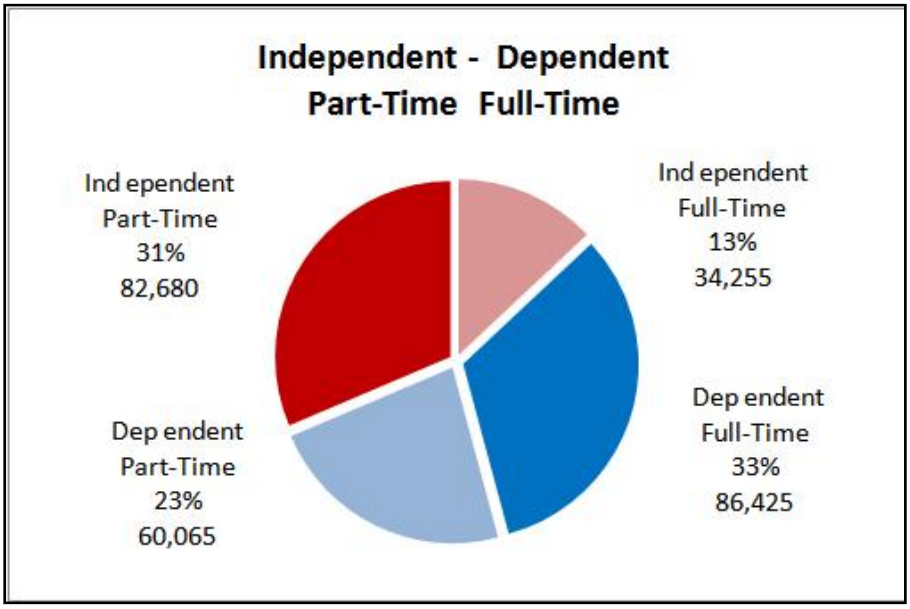

Figure 3 below shows the distribution for full-time and part-time students, and includes both dependent and independent students. Notice that part-time students outnumber full-time students in all income brackets except the $60,000 – $70,000 and the $110,000 + brackets.

Figure 3

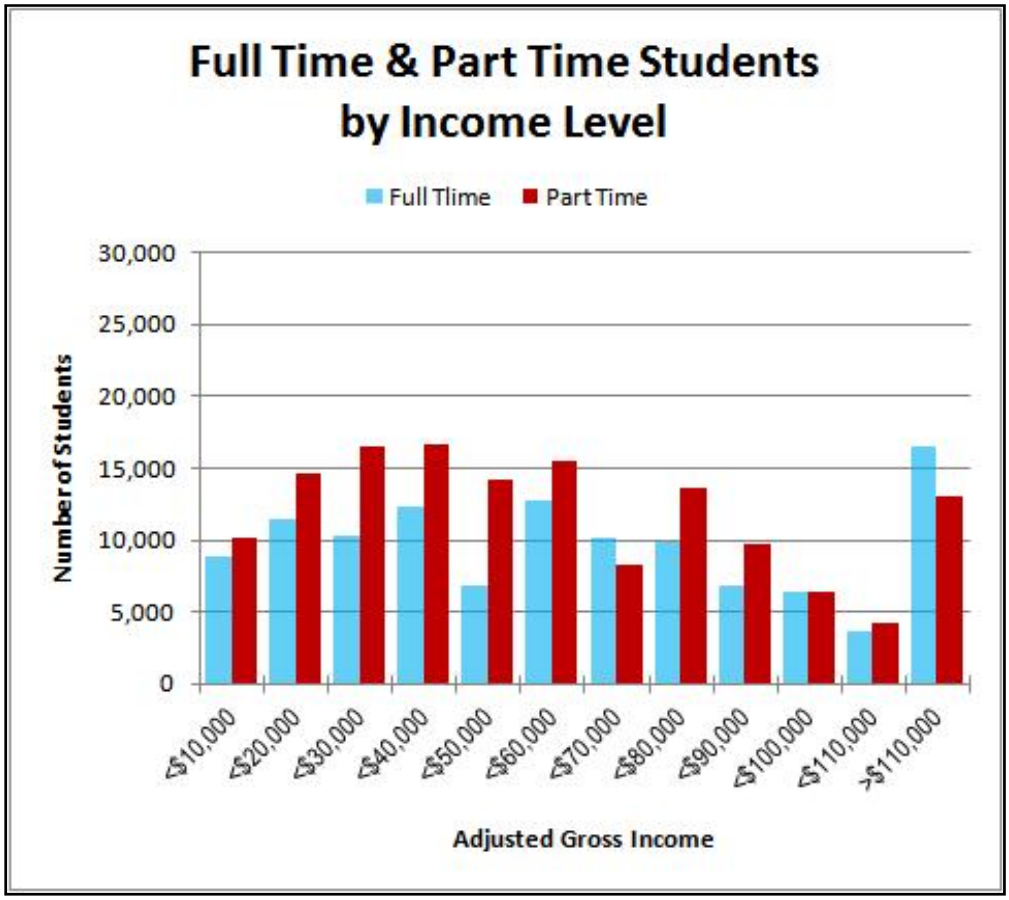

Figure 4 and Tables 1 and 2 below show the income distribution for dependent and independent students. The income distribution for dependent students shows a normal curve in which approximately half of students come from families with incomes above the median income for a Minnesota family of four, approximately $70,000. There are 86,425 full-time dependent students, 35.3 percent of the undergraduate population. These students are bunched at the upper end of the income scale; 47.5 percent have family incomes of $80,000 and above, and less than 15 percent have incomes of $30,000 or below. Twenty percent come from families with incomes over $100,000. Almost half are enrolled at private not-for-profit institutions, and almost none are enrolled at private for-profit career schools. Most of these students are in the 18-22 age range and constitute the group that usually comes to mind when one speaks of “traditional” college students.

When we look at the part-time and independent student populations, a very different picture emerges. Part-time students outnumber full-time students, 142,745 to 120,180. For independent students, 34,255 attend full time; the remaining 58,390 attend part time or for only part of the year. Almost all are enrolled in public institutions, particularly in two-year schools, with a small number enrolled in the private for-profit or not-for-profit schools. Part-time and independent students tend to be older and many have children.

Most of these students have family incomes below the Minnesota median income of about $70,000. The independent students are bunched on the lower half of the income scale. Ninety-seven percent (28,292) of the full-time independents and 78 percent (111,282) of the part-time independent students have family incomes below $70,000. Fifty-seven percent (19,584) of the full-time independents and 40 percent (33,317) of the part-time independent students have family incomes below $30,000.

Fifty-six percent of the single independent students have family incomes below $20,000, 80 percent have incomes below $30,000, and 93 percent have incomes below $40,000. Very few single independent students have incomes over $50,000. The picture is only slightly better with regard to the other independent students (married and no children, married with children, single parent with children). Twenty four percent of these students have incomes below $20,000, 35 percent have incomes below $30,000, 46 percent have incomes below $40,000, and 70 percent have incomes below $60,000.

Although affordability may be a challenging issue, independent and part-time students are enrolled in college. How are they paying for it? Some may have savings. Most are using loans, working, (either full or part time), perhaps living on less than $10,000, and attending part time. Part-time attendance reduces the price of college tuition and books, and allows students to work more hours and increase their income.

Figure 4

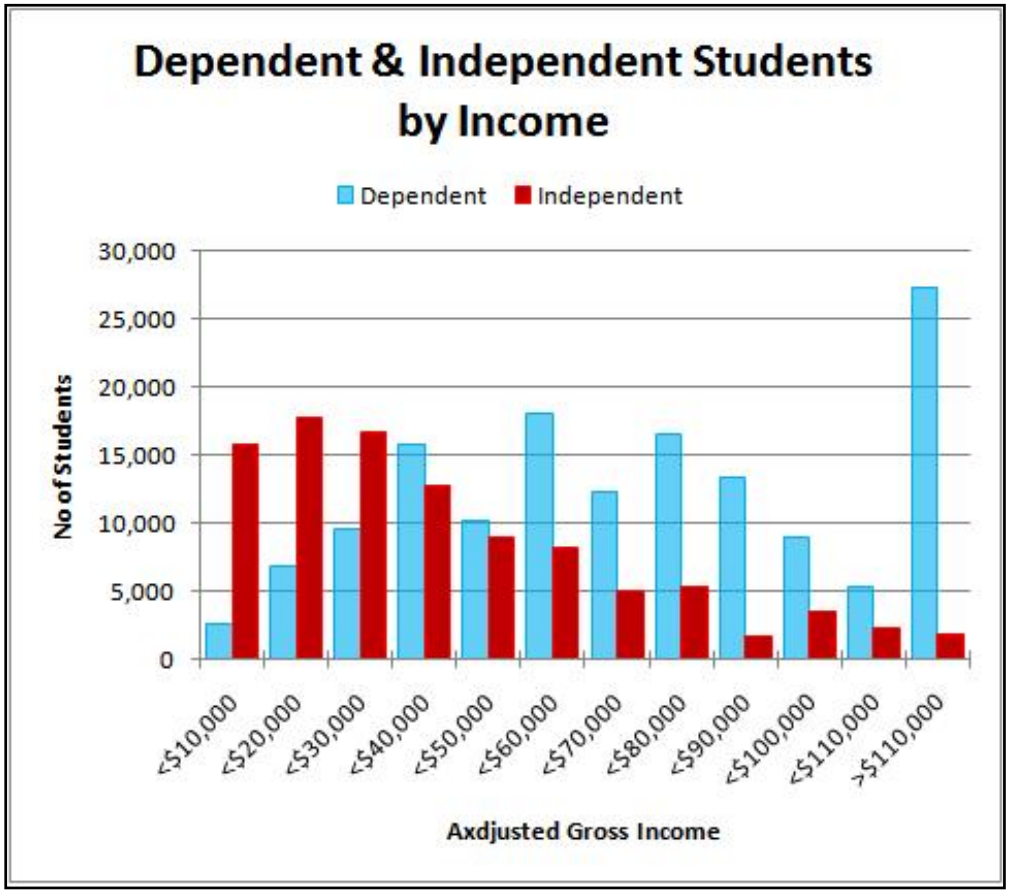

Table 1

Minnesota Undergraduate Student Income Distribution										
			Total =	263,300						
	Dependent.		Independent SNK		Independent MNK		Independent K			
	Total =	146,500	Total =	34,700	Total =	17,500	Total =	64,700		
		55.6%		13.2%		6.6%		24.6%		
Income	Full Time		Full Time		Full Time		Full Time		FT IND	FT IND
	Dependent.		Independent SNK		Independent MNK		Independent K		Totals	Totals
	Total =	86,435	Total =	10,445	Total =	4,918	Total =	18,892		
		59.0%		30.1%		28.1%		29.2%		
	%	#	%	#	%	#	%	#	Totals	%
<$10,000	1.5%	1,297	24.8%	2,590	low n		26.0%	4,912	7,502	22%
<$20,000	4.6%	3,976	40.6%	4,241	low n		17.2%	3,249	7,490	22%
<$30,000	6.6%	5,705	22.8%	2,381	low n		11.7%	2,210	4,592	13%
<$40,000	11.2%	9,681	4.6%	480	low n		11.3%	2,135	2,615	8%
<$50,000	6.3%	5,445	1.3%	136	low n		6.6%	1,247	1,383	4%
<$60,000	11.6%	10,026	1.5%	157	low n		13.5%	2,550	2,707	8%
<$70,000	9.5%	8,211	0.0%	0	low n		10.6%	2,003	2,003	6%
<$80,000	10.7%	9,249	4.5%	470	low n		0.9%	170	640	2%
<$90,000	7.9%	6,828	0.0%	0	low n		0.0%	0	0	0%
<$100,000	7.0%	6,050	0.0%	0	low n		1.6%	302	302	1%
<$110,000	4.2%	3,630	0.0%	0	low n		0.0%	0	0	0%
>$110,000	18.9%	16,336	0.0%	0	low n		0.7%	132	132	0%
	100%	86,435	100%	10,455	100%	4,918	100%	18,911	29,366	

Table 2

Minnesota Undergraduate Student Income Distribution										
			Total =	263,300						
Income	Part Time		Part Time		Part Time		Part Time		PT IND	PT IND
	Dependent		Independent SNK		Independent MNK		Independent K			
	Total =	60,065	Total =	24,290	Total =	12,583	Total =	45,808		
		41.0%		70.0%		71.9%		70.8%		
	%	#	%	#	%	#	%	#	Totals	%
<$10,000	2.2%	1,321	19.5%	4,737	4.8%	604	7.6%	3,481	8,822	11%
<$20,000	4.7%	2,823	29.0%	7,044	12.6%	1,585	7.0%	3,207	11,836	14%
<$30,000	6.5%	3,904	25.9%	6,291	5.1%	642	12.5%	5,726	12,659	15%
<$40,000	10.2%	6,127	18.6%	4,518	2.9%	365	12.2%	5,589	10,471	13%
<$50,000	7.8%	4,685	5.6%	1,360	15.9%	2,001	13.4%	6,138	9,499	11%
<$60,000	13.3%	7,989	0.0%	0	16.1%	2,026	11.9%	5,451	7,477	9%
<$70,000	6.8%	4,084	0.0%	0	9.1%	1,145	6.5%	2,977	4,123	5%
<$80,000	12.0%	7,208	0.6%	146	13.7%	1,724	9.9%	4,535	6,404	8%
<$90,000	10.9%	6,547	0.0%	0	12.4%	1,560	3.5%	1,603	3,163	4%
<$100,000	4.8%	2,883	0.0%	0	2.0%	252	7.0%	3,207	3,458	4%
<$110,000	2.7%	1,622	0.9%	219	1.7%	214	4.6%	2,107	2,540	3%
>$110,000	18.2%	10,932	0.0%	0	2.8%	352	3.8%	1,741	2,093	3%
	100%	60,125	100%	24,314	99%	12,469	100%	45,762	142,670	

Net Price

Figures 5 and 6, and Tables 3 and 4 on the following pages show the system net price by current family income for dependent and independent students. Students are grouped by institution type, and the average for the type of institution is used. The full-time dependent net price is used for both dependent part-time students and independent part-time students on the assumption that many part-time students would attend full time if it were feasible. The thick gray line in Figure 5 indicates the total of the Assigned Student Responsibility and the Assigned Family Responsibility for the University of Minnesota as calculated by the Minnesota State Grant program. This is the amount the state of Minnesota expects a dependent student and his or her family to pay before any grants or scholarships are deducted, and is used for calculating aid awards. The amount for non-tuition expenses of attending recognized in calculating State Grants was $6,065 in 2006-2007, as established in Minnesota law. This is less than the $10,000 average amount students report spending.

In considering these data, it is important to remember that the **net price** is the price after grants, but not loans, have been deducted. Figure 5 and Table 3 below show the net price by system for each income level of full-time and part-time dependent students. For those dependent students with family incomes above $70,000 the private college net price, depending on income, is in the $20,000 - $25,000 range, for the University of Minnesota it is in the $16,000 - $18,000 range, and for the Minnesota State College and Universities it is in the $12,000 - $15,000 range.

For those dependent students from families in the lower half of the income range, the affordability of higher education becomes a significant financial challenge. (See data on system enrollment by income on page 22 of the 2006 *Minnesota Undergraduate Demographics* report by the Minnesota Office of Higher Education.)

Another important consideration is the fact that postsecondary education pays off in higher earnings over a lifetime. Families and students use savings and borrowing to help finance postsecondary education. In recent years at least half of all undergraduates have student loans. Students and families use loans in anticipation of benefits and increased future earnings.

Figure 5

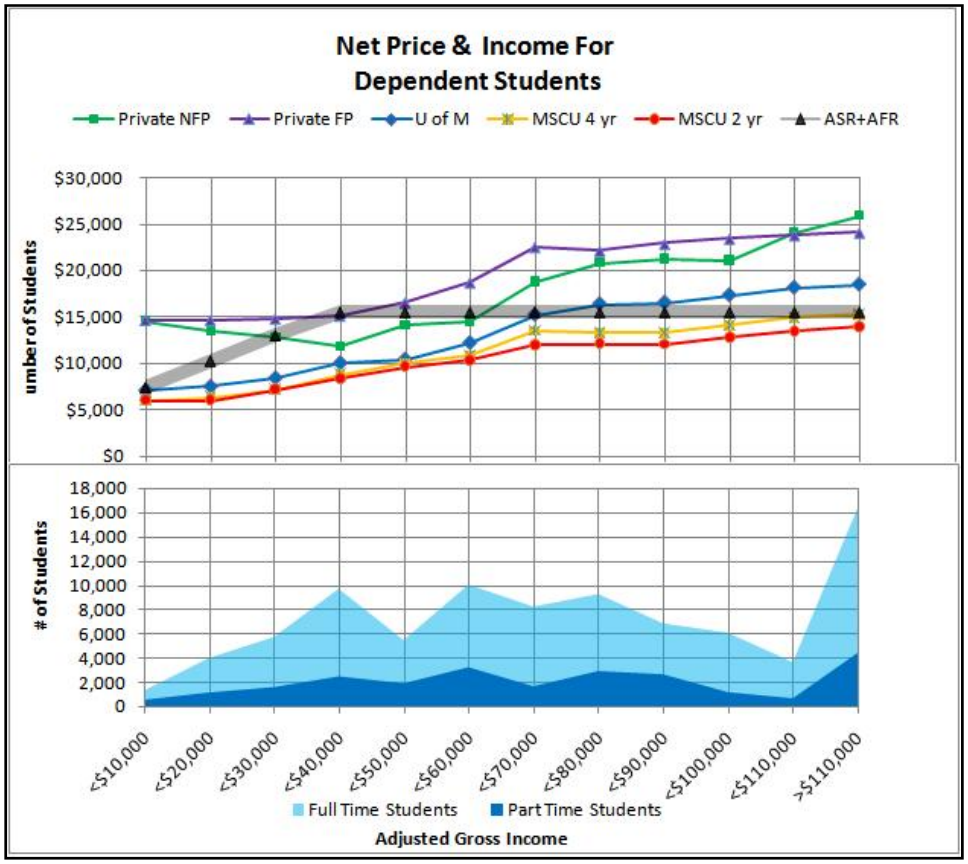

Table 3

	Dependent.				Minnesota Undergraduate Student/Family Income, Net Price, Net Price as % of Income									
	Total =	146,500			Total Students = 263,300									
Income	Full Time Dependent.		Part Time Dependent		Private Not for Profit	Private Not for Profit	Private for Profit	Private for Profit	Univ of Minn	Univ of Minn	MNSCU Four Year	MNSCU Four Year	MNSCU Two Year	MNSCU Two Year
	Total =	86,435	Total =	60,065										
		59.0%		41.0%	Net Price		Net Price		Net Price		Net Price		Net Price	
	%	#	%	#	$	%	$	%	$	%	$	%	$	%
<$10,000	1.5%	1,297	2.2%	534	$14,611	146%	$14,692	147%	$7,117	71%	$6,019	60%	$6,056	61%
<$20,000	4.6%	3,976	4.7%	1,142	$13,516	68%	$14,677	73%	$7,537	38%	$6,329	32%	$6,015	30%
<$30,000	6.6%	5,705	6.5%	1,579	$12,907	43%	$14,827	49%	$8,439	28%	$7,235	24%	$7,228	24%
<$40,000	11.2%	9,681	10.2%	2,478	$11,921	30%	$15,139	38%	$10,049	25%	$8,815	22%	$8,403	21%
<$50,000	6.3%	5,445	7.8%	1,895	$14,154	28%	$16,549	33%	$10,442	21%	$10,073	20%	$9,680	19%
<$60,000	11.6%	10,026	13.3%	3,231	$14,580	24%	$18,722	31%	$12,216	20%	$10,855	18%	$10,390	17%
<$70,000	9.5%	8,211	6.8%	1,652	$18,837	27%	$22,543	32%	$15,221	22%	$13,536	19%	$12,041	17%
<$80,000	10.7%	9,249	12.0%	2,915	$20,813	26%	$22,141	28%	$16,387	20%	$13,314	17%	$12,155	15%
<$90,000	7.9%	6,828	10.9%	2,648	$21,256	24%	$22,882	25%	$16,542	18%	$13,314	15%	$12,082	13%
<$100,000	7.0%	6,050	4.8%	1,166	$21,085	21%	$23,436	23%	$17,319	17%	$14,098	14%	$12,882	13%
<$110,000	4.2%	3,630	2.7%	656	$24,090	22%	$23,801	21%	$18,128	16%	$14,910	13%	$13,565	12%
>$110,000	18.9%	16,336	18.2%	4,421	$25,869		$24,086		$18,469		$15,261		$14,055	

Figure 6 and Table 4 below shows the net price by institution type for independent students distributed across income levels. The heavy gray line represents the Assigned Family Responsibility for single independent students with no children at the University of Minnesota. Because the actual net price for independent students was not available, the average for dependent students was used.

Part-time independent students outnumber full-time independent students 82,680 to 34,255. 50,953 independent students have incomes below $70,000. The net price at the University of Minnesota ranges from $7,100 to $16,000 for those students with family incomes below $70,000, from $14,500 - $18,800 for the private sector; and from $6,000 - $13,500 for MnSCU.

In 2007, about 22,765 independent students had family incomes below $40,000. The net price for those students at the University of Minnesota ranges from $7,100 - $10,400 depending on income; for private sector schools the net prices range from $12,000 to $14,000; and for MnSCU the net prices range from $6,000 to $8,899.

These prices represent a significant “out-of-pocket” expense for these students, and most likely are financed with student loans, work, and part-time attendance. It is important to remember that this is not a small minority of undergraduates. As mentioned above, there are 82,680 part-time independent undergraduates in Minnesota. Additionally, it is probable that some current and potential students may find the size of the loans intimidating, decide that higher education is simply not affordable, and drop out or decide not to enroll.

Figure 6

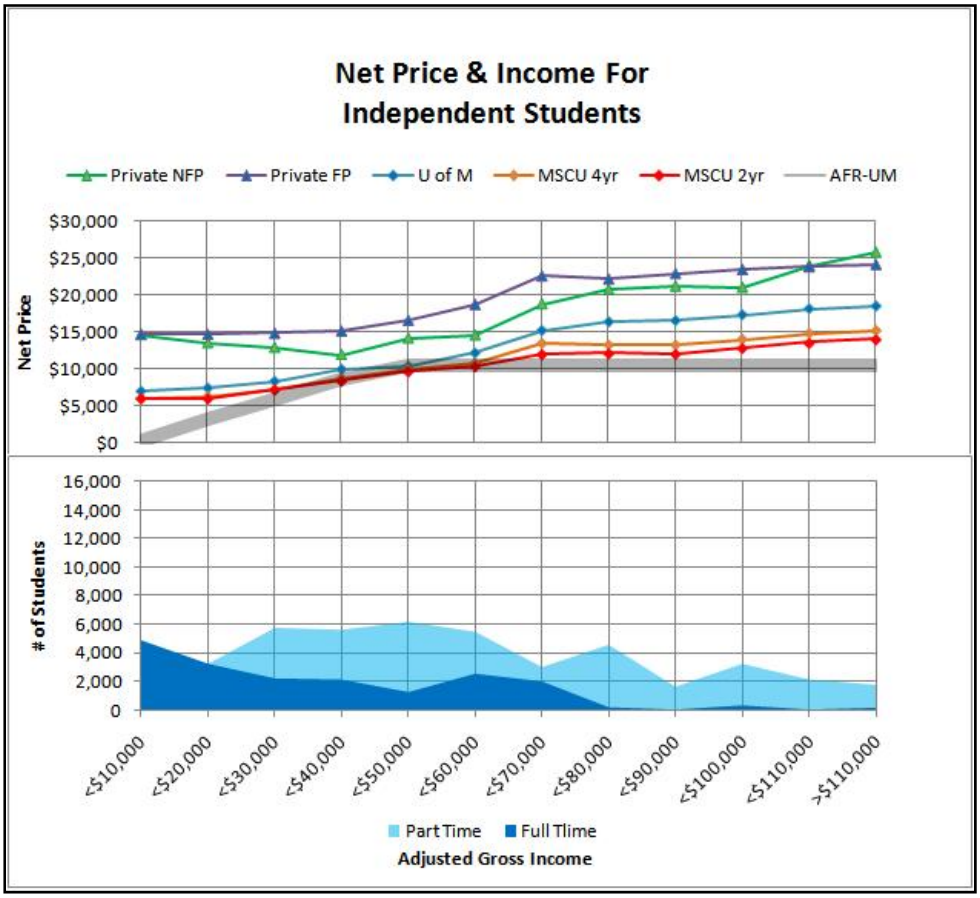

Table 4

Minnesota Undergraduate Student Family Income, Net Price, Net Price as % of Income

Table Contains Net Price and % of Income for Full Time Dependent Students

Income	Full Time Indep No Kids Total = 18,892 29.2%		Part Time Independent K Total= 45,808 70.8%		Private Not for Profit Net Price		Private Not for Profit Net Price		Univ of Minn Net Price		MNSCU Four Year Net Price		MNSCU Two Year Net Price	
	%	#	%	#	$	%	$	%	$	%	$	%	$	%
<$10,000	26.0%	4,912	7.6%	3,481	$14,611	146%	$14,692	147%	$7,117	71%	$6,019	60%	$6,056	61%
<$20,000	17.2%	3,249	7.0%	3,207	$13,516	68%	$14,677	73%	$7,537	38%	$6,329	32%	$6,015	30%
<$30,000	11.7%	2,210	12.5%	5,726	$12,907	43%	$14,827	49%	$8,439	28%	$7,235	24%	$7,228	24%
<$40,000	11.3%	2,135	12.2%	5,589	$11,921	30%	$15,139	38%	$10,049	25%	$8,815	22%	$8,403	21%
<$50,000	6.6%	1,247	13.4%	6,138	$14,154	28%	$16,549	33%	$10,442	21%	$10,073	20%	$9,680	19%
<$60,000	13.5%	2,550	11.9%	5,451	$14,580	24%	$18,722	31%	$12,216	20%	$10,855	18%	$10,390	17%
<$70,000	10.6%	2,003	6.5%	2,978	$18,837	27%	$22,543	32%	$15,221	22%	$13,536	19%	$12,041	17%
<$80,000	0.9%	170	9.9%	4,535	$20,813	26%	$22,141	28%	$16,387	20%	$13,314	17%	$12,155	15%
<$90,000	0.0%	0	3.5%	1,603	$21,256	24%	$22,882	25%	$16,542	18%	$13,314	15%	$12,082	13%
<$100,000	1.6%	302	7.0%	3,207	$21,085	21%	$23,436	23%	$17,319	17%	$14,098	14%	$12,882	13%
<$110,000	0.0%	0	4.6%	2,107	$24,090	22%	$23,801	21%	$18,128	16%	$14,910	13%	$13,565	12%
>$110,000	0.7%	132	3.8%	1,741	$25,869		$24,086		$18,469		$15,261		$14,055	

Affordability Index: Net price as a percentage of adjusted gross income

Another way of asking the affordability question is to consider the net price as a percentage of the student's family income. The question then becomes, "What is a reasonable and doable price expectation as a percentage of family income?"

This analysis considers net price of postsecondary education for Minnesota students in relation to current income only. For dependent students, the calculation is the net price as a percentage of the parents' income. Dependent students may also contribute from their own earnings. Recent data analyzed by the Minnesota Office of Higher Education indicate that Minnesota students work an average of 23 hours per week and earned approximately $7,000 per year. In addition to current income, families and students may use income they have saved and they may borrow to help pay these costs.

The figures on the following pages show the Affordability Index by income across the five sectors of Minnesota postsecondary education. Analysis shows results for three types of students: full-time dependent students, full-time single independent students and all part-time independent students.

Figure 7 and Table 5 shows the Affordability Index by family income for typical dependent students attending full-time full-year in Fiscal Year 2007.[6] Figure 8 and Table 6 shows the Affordability Index by family income for single independent students attending full time for a full year.

Seventy percent of all independent students register for credit loads that are not defined as full time. Figure 9 and Table 7 shows the Affordability Index by family income for all part-time independent students if they were to attend full time for a full year.

[6] For the purpose of estimating Hope tax credits, the "typical" dependent student is defined as a student from a family with a household size of four, with two parents and two children, and one of the children in enrolled in postsecondary education.

Figure 7

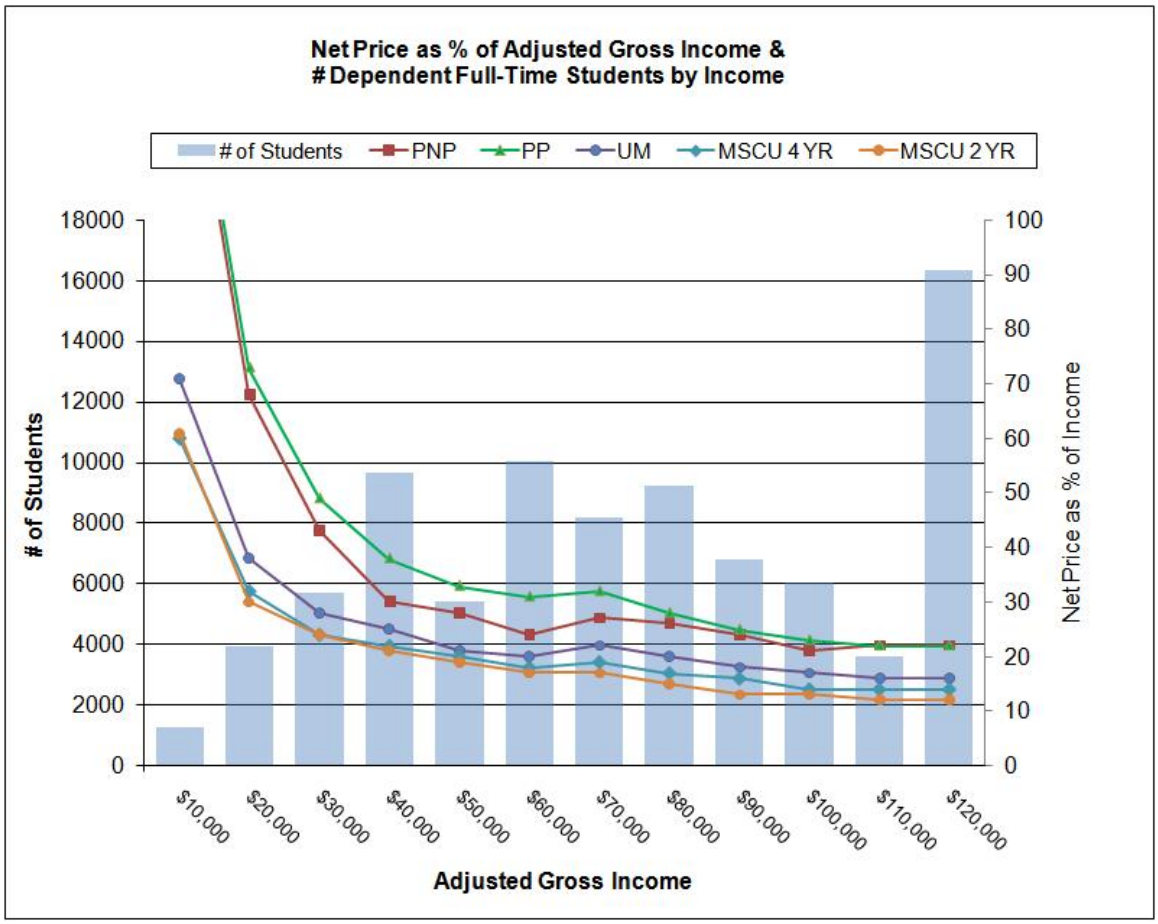

Table 5

	Net Price as Percent of Adjusted Gross Income				
	For Full-Time Dependent Students				
AGI	PNP	PP	UM	MN 4 YR	MN 2 YR
$10,000	145	147	71	60	61
$20,000	68	73	38	32	30
$30,000	43	49	28	24	24
$40,000	30	38	25	22	21
$50,000	28	33	21	20	19
$60,000	24	31	20	18	17
$70,000	27	32	22	19	17
$80,000	26	28	20	17	15
$90,000	24	25	18	16	13
$100,000	21	23	17	14	13
$110,000	22	22	16	14	12
$120,000	22	22	16	14	12
PNP Private not for Profit			UM	U of Minnesota	
PP Private for Profit			MN 4YR	MnSCU 4 Year	
AG Adjusted Gross Incomel			MN 2YR	MnSCU 2 Year	

Figure 8

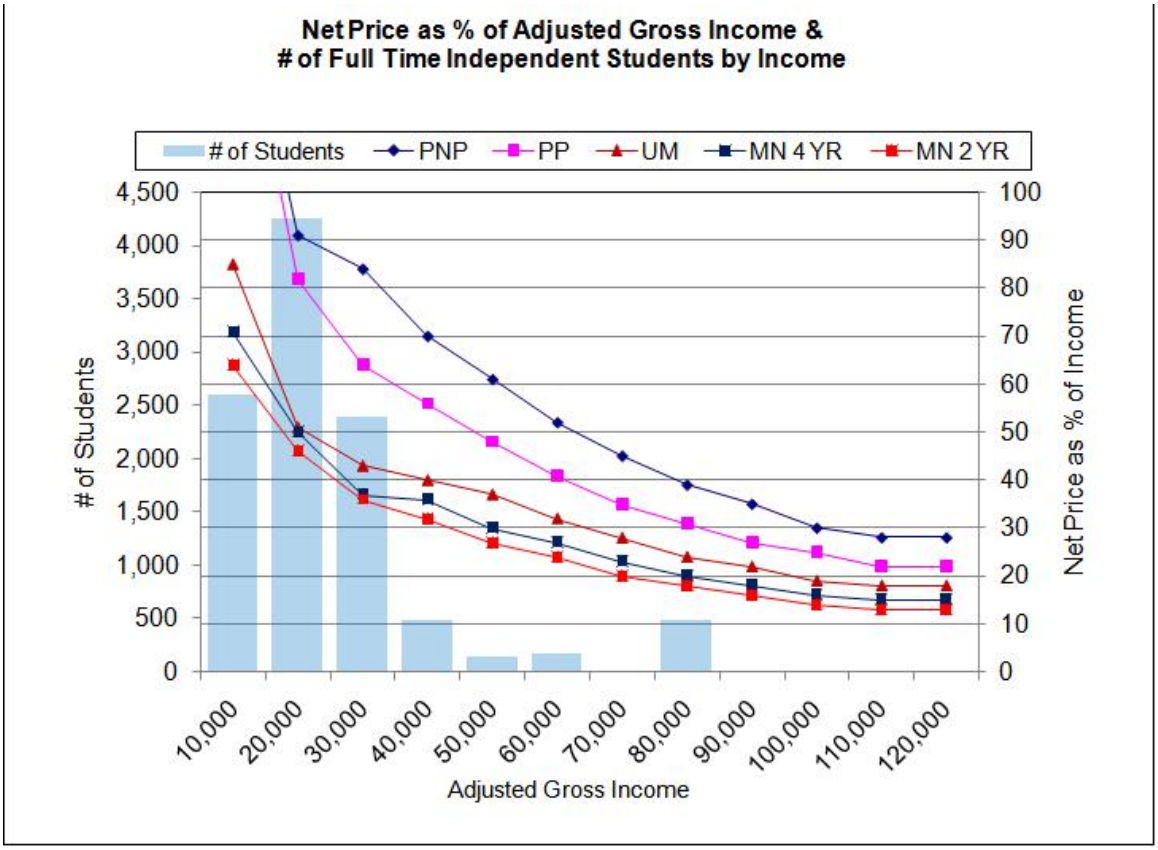

Table 6

Net Price as Percent of Adjusted Gross Income					
For Full Time Independent Students					
AGI	PNP	PP	UM	MN 4 YR	MN 2 YR
$10,000	154	151	85	71	64
$20,000	91	82	51	50	46
$30,000	84	64	43	37	36
$40,000	70	56	40	36	32
$50,000	61	48	37	30	27
$60,000	52	41	32	27	24
$70,000	45	35	28	23	20
$80,000	39	31	24	20	18
$90,000	35	27	22	18	16
$100,000	30	25	19	16	14
$110,000	28	22	18	15	13
$120,000	28	22	18	15	$13

PNP	Private not for Profit	UM	U of Minnesota
PP	Private for Profit	MN 4YR	MnSCU 4 Year
AGI	Adjusted Gross Inccome	MN 2YR	MnSCU 2 Year

Figure 9

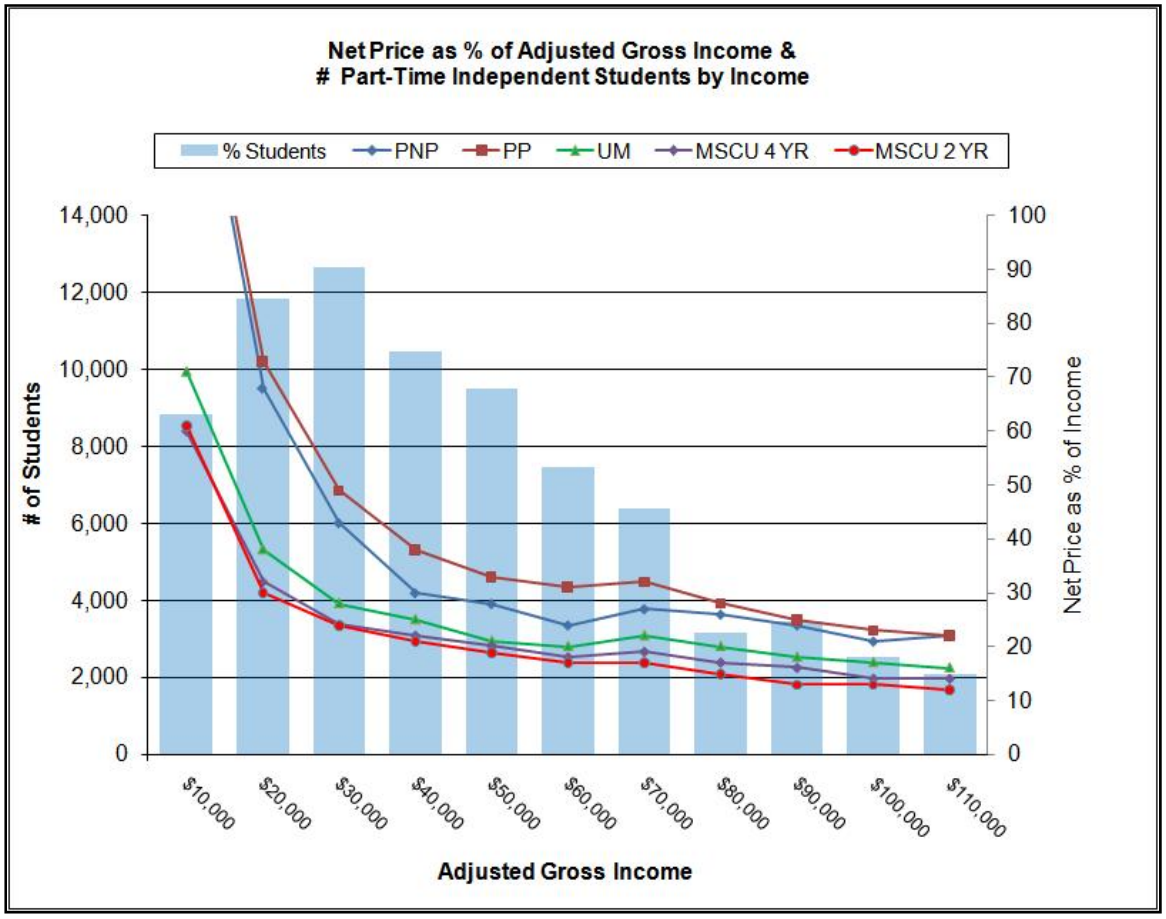

Table 7

Net Price as Percent of Adjusted Gross Income For Full-Time Dependent Students					
AGI	PNP	PP	UM	MN 4 YR	MN 2 YR
$10,000	145	147	71	60	61
$20,000	68	73	38	32	30
$30,000	43	49	28	24	24
$40,000	30	38	25	22	21
$50,000	28	33	21	20	19
$60,000	24	31	20	18	17
$70,000	27	32	22	19	17
$80,000	26	28	20	17	15
$90,000	24	25	18	16	13
$100,000	21	23	17	14	13
$110,000	22	22	16	14	12
$120,000	22	22	16	14	12
PNP Private not for Profit			UM	U of Minnesota	
PP Private for Profit			MN 4YR	MnSCU 4 Year	
AG Adjusted Gross Incomel			MN 2YR	MnSCU 2 Year	

Applying the affordability index presented here, several points become clear. As examples:

- For dependent students with family incomes between $30,000 and $70,000, the private college net price would take between 30 and 50 percent of the family income.

- For dependent students with family incomes between $30,000 and $70,000, the public university net price would require 17 to 28 percent of the family income with most students probably having to pay about 20 percent.

- For independent students with dependents and an income of $40,000, the net price for the public institutions would be about 20 percent (or $8,000) of income.

- For part-time independent students with incomes below $50,000 (the majority of the part-time independent students), the public institutions would require 20 to 60 percent of their income were they to attend full time.

- Most full-time independent students have incomes below $30,000, and would be required to pay from 35 to 85 percent of their income at public institutions.

Findings

- When net prices are calculated by taking the Price of Attendance and subtracting grants and scholarships from federal, state, institution and private sources, students from families with lower incomes have lower net prices than students from families with higher incomes.

- While net prices are lower for students from families with lower incomes, the net prices still represent a substantial percentage of family income – more than 30 percent of family income for students from families with incomes of $30,000 or less.

- While dependent students in the lowest income category are typically assigned no additional share of the recognized amount beyond the 46 percent student share, questions have been raised about the capacity of these low-income students to pay the student share.

- While the State Grant program in general is grounded in sound policy, financial expectations placed on older, non-traditional students who are working full time and attending college may discourage some from enrolling due to financial concerns. For part-time, independent students with incomes below $50,000 (the majority of part-time, independent students), attendance at a public university would require 20 percent to 60 percent of their income, were they to attend full time.

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How Families Pay for College: An Analysis of National and State-Level Survey Research

Minnesota State Grant Review

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Table of Contents

Introduction

One of the basic components of the State Grant Program is the Family-Taxpayer Share. In the conceptual framework for this program outlined in section 2 of the *Minnesota State Grant Review*, after the students' responsibilities for their postsecondary educational costs are assigned, the Family-Taxpayer Share is determined. As family income and net worth increase, so does the Assigned Family Responsibility. Although much is known and analyzed about educational costs, less is known about how and the degree to which families actually fund those costs for their children. This paper summarizes some of the key research efforts to capture information on how families finance the costs of a college education.

The studies presented in this section share related research objectives: to gather information on how family finances affect a student's postsecondary attendance, the types and levels of parental financial contributions to postsecondary costs, and the impacts those contributions and the broader economy have on families. To get specific data on families' financial decision making, the studies utilized surveys to discover what actual methods families have used to pay for postsecondary costs as well as to capture changes in the economy and corresponding shifts in families' finance decisions. Surveys have been used exclusively or as a supplement to existing financial data in part because detailed information about the use and impact of the wide variety of funding strategies does not exist in one detailed data set. Surveys of parents, both alone and in combination with their children, have been used by researchers to fill in this information gap. Surveys have also served the need for specific information at the individual level that can then be used with regression analysis to explore more precisely the relationships between different factors affecting college participation.

The studies discussed in this section are presented by their geographic reach—whether they use national or Minnesota-specific data—and by their methodological scope—those that analyze parents' range of financing options, as well as those with a more narrow focus, such as on specific savings programs. Additional contextual studies on the attitudes of parents and the broader public about financing options for educational costs and other postsecondary affordability indicators are also included. Some of the studies, such as the comprehensive survey conducted in Minnesota, are over 10 years old, but they remain valuable in part due to the scarcity of individual-level data on family financial decision making, especially within the state. By analyzing the different studies of family financing choices and economic concerns over time, a clearer picture can emerge of what is known about Minnesota families' education financing strategies and the impacts they have on families and on students' postsecondary participation.

Comprehensive Surveys of Family Finance Strategies

Minnesota Data

"Ways and Means," Minnesota Private College Research Foundation

In 1992, the Minnesota Private College Research Foundation, supported by a grant from the Lilly Endowment and in conjunction with the University of Minnesota and Minnesota's State Universities, released "Ways and Means: How Minnesota Families Pay for College." The specific focus of the study was on how families finance a baccalaureate degree. At the time, states faced repeated budget shortfalls and families were dealing with a decline in their ability to pay for college. The report also notes a decline in a family's ability to accumulate assets, particularly in home equity; the stagnation or drop in housing values coupled with a sharp rise in home equity loans accounted for this decline. In the three years prior to the report's release, attendance costs as a percent of family income had increased nearly 2 percent per year on average (Minnesota Private College Research Foundation [MPCRF], 1992, p. 6).

Study Design. The research goals for the study centered on gaining reliable information at the statewide level about who attends postsecondary institutions, how that education is financed, and what effects the costs and financing strategies have on families supporting this education. More specifically, the research objectives were to examine higher education costs and benefits accrued across family income levels; determine whether financial aid is underutilized and how aid might be better utilized; determine the degree of fit of the federal methodology for assigning expected family contributions in determining financial aid; and determine how higher education participation is impacted by family income, and by state and institutional policies (MPCRF 1992, p. 12). To meet these objectives, the authors sought a representative sample of freshman, sophomore and junior students enrolled fall term in 1991 at the 26 institutions, public and private, offering baccalaureate degrees in Minnesota. The survey was completed by families of dependent students (students who were claimed as a dependent on their parents' tax return; for this study, all students under 24 were categorized as dependent unless otherwise indicated) and by independent students (those over 24). A total of 5,347 surveys were completed.

The survey instruments included background demographic information for the student and family, family income levels as defined on the federal income tax return, housing market values and outstanding debts, rental payments and any business or farm income. Dependent and independent students received slightly different surveys to reflect their distinct characteristics. The survey also included a section on the families' educational plans in order to capture when they began saving for college, whether the institution attended was the students' first choice, how long students were expected to be in school, what the families felt they should be contributing for the student to attend their institution at their current course load and whether the family's contribution level was likely to increase or decrease (MPCRF, 1992, Appendix A).

In assessing how families pay for a student's postsecondary education, the survey included a question on where the student lived for each term (with parents or elsewhere), whether parents had submitted a Family Financial Statement and the estimated total cost of attendance for the 1991-1992 academic year. Of that estimated total, families then broke down where the funding to

meet the total costs would come from between a combined income/savings amount and a loan amount; the specific types of loans or savings options were not specified. Student contribution estimates were divided between their 1991-1992 academic year income, savings and loans. The final financing category consisted of amounts from grants/scholarships, relatives/friends or other sources. The total from all sources was specified to equal the original estimate parents expected the students' education to cost.

Findings. Survey findings point to an underutilization of financial aid, with an estimate of at least 10 percent of all families statewide qualifying but not applying for aid. The survey revealed that families overall prepare poorly for college financing, with often problematic financing behavior from those without savings (MPCRF, 1992, p. 97-98). For lower-income families, the findings concluded that financing for higher education is regressive, with a higher percentage of the income of lower-income families needed to finance their children's postsecondary education than for families at higher income levels. Additionally, lower-income families accrue a higher debt load to meet postsecondary costs. For families with incomes under $40,000, their contributions could reach to five times the expected contribution under federal guidelines. College participation rates are lower for low-income families, but low-income students seek the same traditional college experience as do students from other income brackets (MPCRF, p. 98). The survey also concluded that the traditional models for financing higher education (from the federal level to that of the individual) are not as relevant for non-traditional or independent students and that more reliable data on family income, which accounts for much of a student's attendance and financing behavior, is needed, especially at the state level. Family income in particular has been understudied at the state level, the authors note, which can be problematic when formulating policy given the impact income has on postsecondary participation.

2002 Graduates Survey, Minnesota Private College Research Foundation

In 2005, the Minnesota Private College Research Foundation, in conjunction with the Independent Colleges of Washington, conducted a survey of graduates of their associated private not-for-profit baccalaureate institutions entitled "Financing Higher Education Today: How 2002 Graduates Paid For and Perceive the Benefits of Their Education." From a telephone survey of 501 Minnesota graduates in 2002 (samples were in proportion to the graduating classes of each institution), the study highlighted some of the ongoing effects of various financing strategies and the relationship between family and student contributions.

Findings. Forty percent of Minnesota survey respondents reported being concerned about repaying their loans; this concern was strongest for low-income and first generation graduates (MPCRF & Independent Colleges of Washington [ICW], 2005, p. 4). Twenty-four percent of graduates reported a debt level above $30,000; the average debt for Minnesota graduates was $22,100. Some graduates (ranging from 16-38 percent) also reported a negative effect of having worked during the academic terms, citing missed opportunities (such as internships and studies abroad) as well as an adverse effect on their grades. Ninety-three percent of graduates overall said they had worked to finance their education, both during summers and the academic year (MPCRF & ICW], p. 4). Parents also appeared to be saving too little to pay for postsecondary educational costs from savings; students had saved an average of $2,400-$3,000 before enrolling,

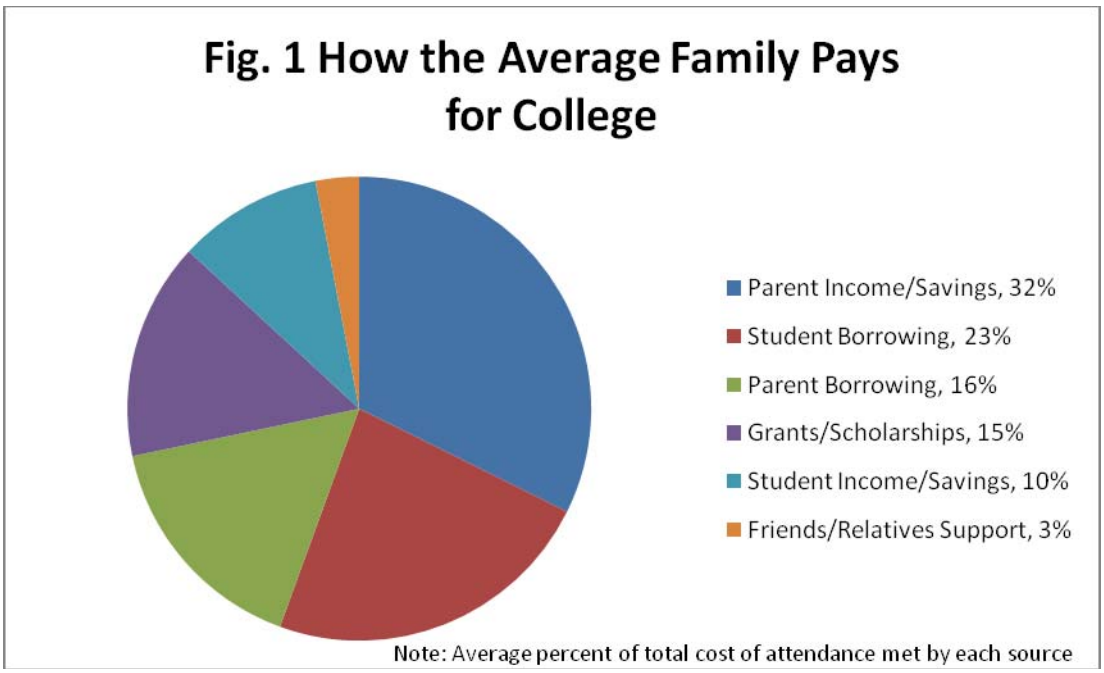
but about a third of parents had not saved or did not use their savings to pay for their child's education. Those that did save contributed an average of $24,600 (MPCRF & ICW, p. 3). Regarding family contributions to their educational costs, 24 percent of graduates reported they had not received any financial help from their families. Forty-eight percent of these respondents attributed this to their parents' inability to pay, 41 percent said their parents put the responsibility to pay on them, the student, and 35 percent said their parents had not saved or used savings for their children's education (MPCRF & ICW, p. 3). A follow-up study was conducted with the parents of these graduates: 30 parents of seniors responded that they had not received financial support and 26 parents had contributed financially to their children's educational costs. Forty percent of the group reported as not contributing confirmed that they had not contributed financially to their child's education, but 60 percent of that group indicated they had helped defray their child's educational costs in ways ranging from paying for food, lodging, car insurance, books and clothing to direct cash donations and loan repayment assistance (MPCRF 2005). In investigating planning for college expenses, the study found that only one-third of the entire group of parents surveyed had developed a financial plan prior to their child's applying to college; contrastingly, three-quarters of the contributing parents had developed such a plan (MPCRF 2005).

National Data

"How America Pays for College," Sallie Mae and Gallup

In May 2008, Gallup conducted for Sallie Mae, the national provider of education loans and savings programs, a nationally representative survey of undergraduate parents and students to gather information on individuals' experiences and attitudes about meeting the costs of a college education. The survey, "How America Pays for College: Sallie Mae's National Study of College Students and Parents," incorporates phone interview data from 684 undergraduate students and 720 parents of a college student between 18 and 24 years old. The study is intended as the first in an annual series to measure people's actual college spending and track how that spending varies over time in relation to policy changes and broader economic shifts (Sallie Mae & Gallup, 2008, p. vii).

Findings. The survey findings are presented in the report both as an aggregate of the range of funding strategies currently used by an American family and as more detailed profiles of families, who utilize various combinations but not all of the available funding options. In the composite picture, parents and students share the costs of college, with parents covering 48 percent of the costs, the largest share (see Figure 1 below).



Source: How America Pays for College (2008)

Parents' current income and savings were the most common source of funds and accounted for 32 percent of the total costs while parental borrowing accounted for 16 percent (Sallie Mae & Gallup, p. 3). Students provided 33 percent of the cost of attending college, with student borrowing accounting for 23 percent and student savings and income accounting for 10 percent of the total college costs. On average, families reported spending "more than $17,200 annually on college from all funding sources" (Sallie Mae & Gallup, p. 4), ranging from the lowest average cost of $5,263 at public two-year institutions to $27,670 at private four-year institutions (p. 18). While over 80 percent of parents and students felt that college is an investment in a student's future (Sallie Mae & Gallup, p. 42), only 60 percent believed that college costs related to educational quality (Sallie Mae & Gallup, p. 41). Additionally, parents noted worries about the future and the economy, particularly a rise in loan interest rates and elevated tuition costs (Sallie Mae & Gallup, p. 45).

In the average family, for parents, current income covered 19 percent of the costs, while savings accounted for approximately 14 percent; within savings, six percent came from education-related savings plans (utilized mainly by families with annual incomes over $100,000), another six percent came from other parental savings, and one percent came from retirement account withdrawals (Sallie Mae & Gallup, p. 3, 6). Within parental borrowing, the Federal Parent PLUS loans at five percent were the most prevalent borrowing source; three percent of the funds for college were drawn from home equity loans or lines of credit, two percent came from private loans, and one percent from credit cards (Sallie Mae & Gallup, p. 3, 4). Within the larger 23 percent portion of borrowing done by students, 12 percent came from federal loan programs, five percent from private loans, one percent from credit cards, and another five percent from other borrowed sources (the "other" category will be further probed in subsequent studies for more specificity) (Sallie Mae & Gallup, 4). For students, savings (four percent) and current income

(five percent, including federal Work Study) amounted to about one-third of what parents contributed from those categories (Sallie Mae & Gallup, p. 4).

In looking at the actual profiles of the families surveyed, the study authors note that the composite picture of family financing strategies does not describe the situation for individual families, who tend to use fewer strategies but rely on those they do utilize to a greater extent than the average profile indicates. Parental income and savings and student borrowing accounted for most of the funds for college costs. The vast majority of families (72 percent) utilized non-borrowed funds, including income, savings and grants or scholarships (see Table 1 below) (Sallie Mae & Gallup, p. 13).

Table 1: The Role of Various Funding Sources to Pay for College
Frequency of Sources and Average Amounts Used

	% of Total Families*	Average Amount**		% of Total Families *	Average Amount**
Non-Borrowed Sources	72%		**Borrowed Sources**	47%	
Parent income and savings	49%		Parent borrowing	16%	
Current income	38%	$5,815	Federal PLUS	6%	$10,701
College savings plan	9%	$7,964	Private education loans	4%	$6,910
Retirement savings withdrawal	3%	$4,763	Home equity	3%	$10,853
Other savings	12%	$5,907	Credit cards	3%	$5,822
Student non-borrowed sources	34%		Retirement account loan	1%	$6,299
Savings	19%	$2,689	Other loans	5%	$9,894
Scholarships	17%	$6,166	Student borrowing	39%	
Current Income	17%	$3,226	Federal loans	28%	$5,075
Grants	14%	$5,135	Private education loans	8%	$7,694
Federal Work-Study	3%	$2,249	Credit cards	3%	$2,542
Other non-borrowed money	4%	$2,981	Other loans	8%	$7,922
Relatives and friends	12%	$3,485			

*Percent of all families responding, derived from responses to borrowing and non-borrowing questions
**Average among those who used the source
Source: How America Pays for College (2008)

The most common financing strategies were using current parental income, adopted by 38 percent of all families surveyed, and student federal borrowing, utilized by 28 percent of respondents (Sallie Mae & Gallup, p. 13-14). For less prevalently used strategies, the picture is more extreme: while only three percent of families used home equity loans or lines of credit, for those that did, the amount borrowed averaged $10,853, which was greater than any other funding source for those families (Sallie Mae & Gallup, p. 14). The six percent of families who utilized Federal PLUS loans averaged $10,701 from that source, and the nine percent of families who opted for education savings plans used $7,964 (Sallie Mae & Gallup, p. 14).

In examining the frequency of borrowing for college, students account for the majority of the borrowing over parents, with 82 percent of students taking out loans compared to 35 percent of parents (Sallie Mae & Gallup, p. 23). In certain groups, students are often sole borrowers, such as in Hispanic families who borrow, where 76 percent of the time students are the sole borrowers (Sallie Mae & Gallup, p. 23). Despite lower participation rates, however, parents who did borrow

took out more money than students: for federal loans, the most popular loan product for both groups, parental amount was $10,701 and the student amount was $5,075 (Sallie Mae & Gallup, p. 25). For both respondent groups, mortgages and student loans were perceived as the "most acceptable" form of debt, with credit card being the least acceptable form of debt (Sallie Mae & Gallup, p. 49).

Analyzing family income also revealed different uses of college funding strategies. In family profiles in the aggregate, both students and parents in middle-income families tended to borrow more, and the greatest behavior differences across income were in use of current parental income and savings, where higher-income families making greater than $100,000 annually contributed over four times what lower-income families (less than $35,000 annual income) did (Sallie Mae & Gallup, p. 5). Student contributions decreased as family income increased, with lower-income students contributing nearly two-and-a-half times the amount of savings, income and gift aid as did students from higher-income families (Sallie Mae & Gallup, p. 8). Middle-income students had the highest borrowing total with an average of $4,980 annually (Sallie Mae & Gallup, p. 9) and covered 29 percent of their costs by borrowing (p. 10). Although reported credit card use was not a major funding source for students, subsequent surveys will explore the extent to which that is a product of underreporting the indirect costs of college, such as everyday expenses, that would be funded by credit cards (Sallie Mae & Gallup, p. 9).

The study also explores the impact institutional choice has on college costs. Students attending two-year public institutions tended to borrow less and pay more costs from savings and income at 27 percent than did students at four-year public institutions; students at two-year public colleges also received the lowest amount of gift aid (Sallie Mae & Gallup, p. 10-11). Middle- and lower-income students attended two-year public institutions in equal numbers, and middle-income students also attended four-year private institutions at nearly the same rate as higher-income students and at a higher rate than lower-income students (Sallie Mae & Gallup, p. 12). Students at four-year private institutions reported more grant and scholarship funding as well as higher student and parental borrowing at 25 and 17 percent, respectively (Sallie Mae & Gallup, p. 12). Students from the lowest income group (families with less than $35,000 annual income) reported costs of attendance exceeding those of students from families with annual incomes between $35,000 and $100,000 (Sallie Mae & Gallup, 17).

Institutional cost was cited as a reason for eliminating an institution from consideration for 58 percent of families (Sallie Mae & Gallup, p. 25-26). Fifty-three percent of students and 47 percent of parents eliminated institutions based on cost before the application stage (Sallie Mae & Gallup, p. 25). For students who eliminated institutions due to cost, choosing a lower-priced institution, living at home and attending community college were common alternative strategies (Sallie Mae & Gallup, p. 28). Additionally, over two-thirds of parents and students did not factor in a student's potential future earnings when deciding on college funding strategies (Sallie Mae & Gallup, p. 32). Student estimates of future loan repayments did not correspond to the loan values they had reported (Sallie Mae & Gallup, p. 33), suggesting a lack of awareness of college costs into the future. The study further reports that 25 percent of all families did not fill out the FAFSA, ranging from 11 percent of those with incomes below $35,000 and jumping to 23 percent of those with incomes between $35,000 and $50,000 (Sallie Mae & Gallup, 30). Further,

only 65 percent of freshmen completed the FAFSA, compared to 82 percent of juniors (Sallie Mae & Gallup, p. 31).

"It's All Relative," Institute for Higher Education Policy

In 1998, the Institute for Higher Education Policy commissioned a study of parents of students in college to expand on available National Center for Education Statistics data. The study "It's All Relative: The Role of Parents in College Financing and Enrollment," supported by the USA Group Foundation, now the Lumina Foundation, analyzed demographic information on parents and students, how institutions are chosen by students and parents and how tuition is paid for with specific analysis of parents' various saving and borrowing strategies (Stringer, Cunningham, O'Brien, & Merisotis, 1998). The authors particularly noted the need for survey data to allow regression analysis of specific factors affecting college attendance and parental financing decisions.

Study Design. The study was designed to capture the changes in the roles parents play in postsecondary financing and the factors that may be impacting those roles. The research questions focused on two main areas: parents' involvement in institutional selection and financial strategies used before enrollment, and specific information on parents' financing strategies during their children's postsecondary careers. The authors utilized findings from earlier studies along with data from NCES with specific focus on the National Education Longitudinal Study data, whose then most recent follow-up was in 1994, and data from the National Postsecondary Student Aid Study, focusing on 1992-1993 data. To supplement these data sets, the study included a survey of 750 parents contacted by telephone in 1998 that had at least one dependent child enrolled in a postsecondary institution for 1997-1998.

Findings. A major conclusion of the study was that parental financial contributions were increasing but at a disproportionate rate with increases in the average college costs; further, the dollar amounts parents contributed actually decreased when adjusted for inflation. Between 1986-1987 and 1997-1998, the amount parents contributed decreased by eight percent, according to the survey, while between 1986-1987 and 1996-1997, the average college cost (including tuition and fees plus room and board) had increased by 38 percent when adjusted for inflation (Stringer et al., 1998, p. 3). The authors note that the strongest factors for parents in determining their contribution rate are the cost of attendance coupled with family income; they further found that family income influences institutional choice and therefore the cost of attendance (Stringer et al., p. 4).

For educational financing strategies, the authors found that the majority of parents are not going into debt, but those who borrow do so at increasing rates. Although loans were the third most popular financing strategy, preceded by using current income and then savings, the average loan amount for those that do borrow rose by 50 percent between 1992-1993 and 1997-1998 (Stringer et al., 1998, p. 31-32). Additionally, the amounts parents borrowed through the PLUS loan program between 1986-1987 and 1992-1993 increased by $988 (Stringer et al., p. 22). The authors further note that parental estimates of educational costs, and available sources to meet those costs, may be out of step with real costs, and the amount of family savings compared to yearly income is positively related to the level of financial support given to students. Also, the

vast majority of parents (94 percent) participated in the admissions and financial aid process, although parents who did not attend college themselves were disadvantaged when helping their children through this process (Stringer et al., p. 23).

Suggestions for Further Study. The authors suggest a number of issues that warrant further study based on their findings. The increase in consumer debt (37 percent of parents responded that they had used credit cards to pay their children's educational expenses), the rapid increases in college attendance costs and their effect on parental willingness to contribute to students' funding, the increased availability of student loan products (and the degree to which these options are shifting an increasing debt burden onto students) and delayed parental savings or declining real income all are suggested as areas for further investigation to understand the real impacts of costs on the various participants and stakeholders in higher education (Stringer et al., 1998, p. 33-34). Additionally, the authors point out that the impact parents' lack of available funds (such as through savings) has on students' choices—such as to delay school or choose a school with lower costs—has not adequately been captured (Stringer et al., p. 26).

Low- and Middle-Income Students, NCES Report, Choy and Berker

A 2003 NCES report, "How Families of Low- and Middle-Income Undergraduates Pay for College: Full-Time Dependent Students in 1999-2000" examined differences by income groups and institution types in how families used aid and their own resources to pay postsecondary costs for their children (Choy & Berker). The report analyzed data from the 1999-2000 National Postsecondary Student Aid Study (NPSAS: 2000), which included a telephone interview with undergraduates at two-year public and four-year not-for-profit institutions nationwide. The study begins by noting the shift in federal aid policy to include more students from middle-income families (defined in the study as between $45,000 and $75,000) as well as the students from lower-income families (below $30,000) that federal programs were originally designed to serve. The study focused on the net price of attendance to families (a combination of student and family contributions), defined as any residual amount after aid (grants and loans, excluding work study, which are classified as student earnings) are subtracted from the total cost of attendance.

Findings. A majority of the undergraduates studied received financial aid. A majority of students at four-year institutions received financial aid (86-98 percent of low-income students and 71-93 percent of middle-income students), and 78 percent of low-income students at two-year institutions received aid, while 40 percent of middle-income students received aid at two-year institutions (Choy & Berker, 2003, p. 23). Students of both income groups had sizeable unmet need, defined as the remainder after financial aid and the expected family contribution are subtracted from the total attendance costs. Of middle-income students, between 38-65 percent had an unmet need, but 74-92 percent of low-income students had an unmet need depending on the type of institution attended (Choy & Berker, p. 39). In terms of "net price" of attendance, low-income students attending public non-doctoral institutions had the lowest average net price to pay, and both low-income and middle-income students experienced the highest net prices at private not-for-profit doctoral and liberal arts institutions. Just over three-quarters of all full-time dependent students worked during 1999-2000, and no difference was detected between students from different income groups across institutional types in whether they worked, the amount they worked or the average amount they earned (Choy & Berker, p. 47). Although students reported

different effects on their grades due to work, the negative effects reported on grades increased with the reported hours worked (Choy & Berker, p. 49). Middle-income students reported with greater frequency having help from parents in paying their educational costs.

The study concludes by stating there are sizeable gaps in what is known in the available data about how families from both income groups meet educational costs. The study authors note their data represents only students who enrolled in college, and not the students who did not attend or dropped out of college due to financial considerations (Choy & Berker, 2003, p. 39-42). For those that do enroll, little is known about how the difference between educational costs and expected family contributions are met. For low-income students across institutional types, the expected family contribution fell short of the net price of attendance. The authors note that at public two-year institutions, low-income students appear to have met their costs by receiving grants, working while enrolled and living at home. At four-year public institutions, low-income students appear to have met the gap through financial aid, working and receiving help from their parents to meet educational costs (Choy & Berker, p. 58-60). For low-income students at private not-for-profit doctoral and liberal arts institutions, where unmet need levels were the highest, the study authors theorized how the need was met, offering ideas including students using a higher percentage of their income than the expected family contribution methodology specifies, obtaining gifts or loans from people other than parents and using private loans or credit cards (Choy & Berker, p. 58-60). Middle-income students attending private not-for-profit doctoral institutions also had a high unmet need, and the study authors similarly found it unexplainable from the data how those college costs were met by those students and families (Choy & Berker, p. 60).

Increased Costs and Borrowing, NCES Reports, Choy; Presley and Clery

Two reports commissioned by the U.S. Department of Education using NCES data capture changes over time in educational costs and shifts in financing strategies.

Study Design. In "Paying for College: Changes Between 1990 and 2000 for Full-Time Dependent Undergraduates," inflation-adjusted costs of attendance across all postsecondary institutional types increased between 1990 and 2000 (Choy, 2004). Inflation-adjusted grant aid also increased across all institutional types, but not at the same rate as average net attendance costs (the average price of attendance minus grant aid). The percentage of full-time dependent students who borrowed during this decade to cover this funding gap rose from 30 percent to 45 percent, due also in part to a broader array of available loan options and revised loan eligibility criteria. The average loan amounts also increased across all income groups. Factoring in average attendance costs, grant aid awards and loan amounts, the average net price to attend a postsecondary institution decreased or remained the same for all but full-time dependent students at two-year public institutions, who saw an increase. Further, low-income students at two-year public institutions were the only group of low-income students to not benefit from a decrease in net price (Choy, 2004). The study notes the shift towards increased borrowing for all students and the risks they face in future repayments.

Findings. In a study of attendance and financing strategies for middle-income undergraduates using the NCES National Postsecondary Student Aid Study (NPSAS) data from 1995-96, the

authors found that 58 percent of full-time dependent undergraduates had unmet financial need after financial aid and parental contributions were included to cover the cost of postsecondary attendance (Presley & Clery, 2001). Middle-income, as well as lower-income, students with financial need were also more likely to borrow money than were full-time dependent students from higher income groups, regardless of the varying prices of attendance at different institutions (Presley & Clery, 2001).

Rise of Private Loans Report, Institute for Higher Education Policy

In two studies of private loan use in 2003 and 2006, the Institute for Higher Education Policy examined NPSAS data, data from the Survey of Undergraduate Financial Aid Policies, Practices, and Procedures and focus group and other data to capture practices in the loan market and financial aid offices as well as student and parental perceptions of private loans (Wegmann, Cunningham, & Merisotis, 2003; The Institute for Higher Education Poilcy [IHEP], 2006). The authors note the growth in the private loan market—a 244 percent increase in private loan products between 1997 and 2003—and the rising use of private loans by parents and students to finance postsecondary costs. Private loans represented $5-$6 billion annually but only 10 percent of the total student loan market (Wegmann et al., 2003). [A 2007 issue brief by the Institute noted the global rise in private financing as more people complete secondary education, public expenditures on postsecondary education shrink and economic changes give individuals a higher rate of return on a postsecondary education (Hahn, 2007).]

Findings. The studies indicate that private loans seem to facilitate more student choice in selecting an institution. The groups most likely to use private loans were traditional-aged, dependent undergraduates at private four-year schools with high costs of attendance, independent students attending private for-profit institutions, undergraduates who have high living and miscellaneous expense and professional students, especially those in law school. In 2003-04, five percent of undergraduates and 24 percent of professional students took out private loans, an increase of one and eight percent, respectively, for the two groups from 2000 (IHEP, 2006, p. 15, 26). Additionally, 33 percent of independent undergraduates took out a private loan (IHEP, p. 16). For both dependent and independent undergraduates, private loan borrowers were more likely to attend full time, as opposed to part time; for independent students, non-borrowers were more likely to work full time, suggesting a choice between work and private borrowing. The authors also note the strong correlation between use of private loans and students maximizing federal loans. For 1999-2000, 77 percent of professional students and 50 of undergraduates who took out private loans also maximized their Stafford loans, compared to 40 of professional students and 13 percent of undergraduates who maximized their Stafford loans but did not take out private loans (Wegmann et al., 2003). Although the authors note most students do not appear to be taking on unmanageable debt, they raise awareness that certain student groups take on a high debt load that may be unmanageable in the future, especially if the promise of high future salaries is not realized (Wegmann et al., 2003).

Private loans were also found to blur the distinction of who is responsible for the debt. Parents are often co-signers on private loans. They may also be assisting their children in paying those loans, but there is further evidence that parents are using private loans to finance some of the expected family contribution. The authors find this in effect particularly when parents do not obtain a PLUS loan (Wegmann et al., 2003). The 2006 study further found that parents were not fully utilizing PLUS loans, and that some parents reported an unwillingness to take on debt in their names for their children's educational costs. Concern over retirement costs was theorized as a reason for these choices (IHEP, 2006, p. 22). The 2006 study concludes with the growing importance of the private loan market as a viable financing strategy, especially as federal and private loan interest rates converge and attendance costs rise. The study authors also underline the need for continued study of student and family financing to understand better the realities of postsecondary costs and what particular factors attract individuals to private loans, especially with the "fungibility" of and trade-offs between financial resources for students and families (Wegmann et al., 2003, p. 73).

Low Parental Contributions, High School and Beyond Survey Data, Marie Kalenkoski

A 2005 study utilizing data from the High School and Beyond (HS & B) Surveys examined how parental attitudes about financing their children's postsecondary costs impacts the students' learning outcomes. In "Parents Who Won't Pay: Expected Parental Contributions and Postsecondary Schooling," Marie Kalenkoski analyzed HS & B data, which contains surveys of a cohort of high school sophomores beginning in 1980 with follow-up surveys conducted in 1982, 1984, 1986, and 1992 (2005).

Findings. Her analysis found that over two-thirds of parents do not make their Expected Parental Contribution [EPC] (defined for this study as the EPC used in 1982-1983 to determine eligibility for the Pell Grant (Kalenkoski, 2005, p. 206). In comparing income and EPC levels, the author also found under-contributing parents have children with somewhat lower schooling outcomes than parents who meet their EPC. These children are less likely to enroll in a four-year program and their educational expenditures are lower, "suggesting that they are attending lower cost and possibly lower quality schools" (Kalenkoski, 2005, p. 206). By reviewing standardized tests and grade point averages in high school, Kalenkoski determined that the academic abilities of the students from low- and full-contributing families are similar. Further, she found under-contributing parents have larger EPCs (determined by parental income and assets) than do fully contributing parents. The analysis then used an adjusted EPC to include a students' contribution and the total cost of schooling, in case parents were not contributing due to the child's own funds or choice of a lower-cost institution. Under this revised model, 46 percent of parents were found to be undercontributing to their share of their child's educational costs (Kalenkoski, 2005, p. 207). The study concludes by highlighting the link between family support and educational outcomes for students and the finding that larger EPCs may encourage larger parental transfers of funds.

Postsecondary Cost Awareness, National Household Education Survey Data, Horn et al.

A study of student and parental knowledge of and preparation for postsecondary educational costs showed a discrepancy between actual costs, estimations of costs and preparation to meet those costs (Horn, Xianglei, & Chapman, 2003). The study used a survey of 7,910 sixth through twelfth graders who had participated in the Youth Survey of the National Household Education Survey: 1999 and their parents who had completed the Parent Survey of the National Household Education Survey: 1999.

Findings. Ninety-one percent of parents and students said the students would go on to postsecondary education after high school, yet only 30 percent of the parents surveyed had sought cost of attendance information. This awareness of cost information increased with the student's grade level and was also positively correlated with parental education level and a student's plan to attend a private, as opposed to a public, four-year institution (Horn et al., 2003). Parents' financial preparations for college expenses (including saving or making other financial plans), however, did not increase significantly with a student's nearing enrollment; only 63 percent of parents of 11th and 12th graders who planned to go to college had made financial preparations (Horn et al.). There was a positive correlation between students' grade-point average and parental financial planning. There was also a correlation between cost awareness and income: parents with household incomes over $75,000 were more often knowledgeable about college costs than parents with household incomes of $50,000 or below (Horn et al.). Household income and parental education level was strongly associated with cost knowledge for both parents and students; however, students who participated in family decision-making and parents who were involved in their child's school were more likely to be knowledgeable about college costs regardless of household income or parents' education levels.

Focus on Savings (National Data)

Study of College Savings Plans

In "State-Sponsored, Tax-Advantaged College Savings Plans: A Study of Their Impact on Contemporary Understanding of the Public-Versus-Private Responsibility to Pay for Higher Education Issue," Andrew Roth examined offerings of pre-paid tuition programs and college savings trusts and bonds across states nationwide in 1999. The study's analysis showed a shift in policy towards an increased parental burden. Constricted state budgets and an increase in student debt levels led to an increase in "anti-generational burden shifting," wherein parents are held increasingly responsible for the college financing for their children (Roth, 1999, 44). The study finds this policy shift indicative of the increased focus on affordability more broadly as opposed to earlier programs geared towards broader accessibility in higher education.

Sebago Associates Study

In November of 2000, Sebago Associates released a report that focused on the importance and costs of postsecondary participation and the savings behavior of families to meet those and other costs in the near and long terms (Stiglitz, Tyson, P. Orszag, & J. Orszag, 2000). The report, "The Impact of Paying for College on Family Finances," was commissioned by UPromise, Inc., which was launched in 2001 and bought by Sallie Mae in 2006. UPromise, Inc. offers savings programs for college education and shopping rebate programs through partnerships with various companies. The report established the importance of college attendance from existing research, including the increased rate of return to individual graduates in terms of increased earnings and to society by increased economic growth, greater civic participation and improved health and resulting lower healthcare costs.

Study Design. The authors analyzed the importance of family savings as a key means of financing an undergraduate's education. They note that while the cost of postsecondary education has been rising, family savings have been declining with nearly two-thirds of families with children under 18 not saving during 1998 (Stiglitz et al., 2000, p. 33). Additional tension on savings comes from the need to save for retirement by an increasingly large segment of the population. The authors further point to a discrepancy between the prevalent life-cycle/permanent income model used to analyze savings patterns and people's actual saving and borrowing patterns, which tie consumption patterns more closely to yearly income as opposed to expected lifetime earnings. According to the study, consumers cut back or increase their spending based on yearly income as opposed to maintaining a static standard of living and using borrowing and saving as needed to maintain that standard into the future (Stiglitz et al., p. 35). As a result, the study authors question the degree to which consumers use optimal savings strategies based on earnings projections over their entire lifespan. This determination then informs the discussion of policies and programs that may encourage consumer savings, such as automated savings in 401(k)s; yet the authors note that the degree to which new savings incentives generate new savings dollars (as opposed to switching the same relative amount laterally between savings options) is inconclusive (Stiglitz et al., p. 37, 38).

Findings. The study authors utilized data from the 1993 National Postsecondary Student Aid Study to investigate college financing strategies of families and concluded that on average, families used a combination of 3.3 different funding strategies (see Table 2 below). The most prevalently reported strategies were utilizing current income by reducing other expenditures and drawing out of existing savings (defined as savings accounts, money markets or CDs); these two financing approaches were the most commonly used across public and private four-year institutions and public two-year institutions (Stiglitz et al., 2000, p. 40). The national survey also indicated that families' next most common strategies, as an average of percentages from all institutional types, were to increase current income by working more hours or by taking on a second job (Stiglitz et al., p. 40). Of the two specific debt-related strategies surveyed, borrowing money was rated the seventh most utilized, and taking out a second mortgage or mortgage refinancing was ninth out of the 11 options (Stiglitz et al., p. 40).

Table 2 Strategies for Financing College (Percentage of Families)

How financed:	Total	Private non-profit four-year	Public four-year	Public two-year
Use money from regular job	62.6	66.6	64.5	52.9
Money from savings, money markets or CDs	52.9	58.6	54.1	44.6
Worked more hours at job(s)	17.8	14.5	15.0	33.5
Take on extra job	15.7	17.3	15.1	16.3
Use retirement funds for education expenses	13.5	14.2	12.9	16.6
Other funds	12.0	13.1	12.3	9.4
Borrow money	10.0	12.3	9.6	7.6
Tuition prepayment plan	7.5	10.3	6.9	4.0
Second mortgage/refinance real estate	7.3	8.9	7.0	6.7
US Education Savings Bonds	7.0	6.7	6.6	8.9
Trust funds	3.2	6.3	2.9	1.1
Number of strategies used	**3.3**	**3.6**	**3.2**	**3.0**

Source: The Impact of Paying for College on Family Finances (2000)

The authors also analyzed state-level data from the U. S. Department of Education. Minnesota ranked 11th in average tuition costs for 1998-1999 with an inflation-adjusted, per-year average increase in tuition of 3.3 percent between 1984 and 1998 (Stiglitz et al., p. 68).

The study concludes with a series of models of families of various sizes with projected income and savings scenarios. The authors utilized a number of indicators to develop current and future earnings profiles, ranging from the number and ages of the parents and children in the household, the historic rate of return on investments, the type and costs of college the children will attend and parents' initial earnings level with projected income increases based on age-earnings data (Stiglitz et al., 2000, p. 41). With these varied scenarios, the authors then analyzed strategies to bridge the gap between savings and the amount of savings necessary for the parents to send their children to college while maintaining their retirement goals. The strategies analyzed were reducing consumption, borrowing on the home and reducing retirement income (Stiglitz et al, p. 42). For all family profiles—ranging from a family with an income of $175,000 and three

children going to elite colleges to a family with an income of $30,000 and one child attending a four-year public college—there was a savings gap that was for some families characterized as severe. The recommendations identified by the authors to bridge the savings gap were for families to increase their savings' rate or increase their income and for the government and others to increase financial aid programs and develop programs to promote savings for families.

Investment Company Institute Study

In the 2003 survey "Profile of Households Saving for College," the Investment Company Institute explored the extent to which families save for college and the types of savings programs they utilize. The study was further focused on how parents used various education-oriented savings programs, such as state-sponsored 529 savings and prepaid tuition plans, 529 savings plans offered by private postsecondary institutions and Coverdell Education Savings Accounts. The study also included broader savings options with a tax benefit for education-related spending, including the Uniform Gift to Minors Act and Uniform Transfer to Minors Act custodial accounts, Roth and traditional IRAs and U.S. Savings Bonds (Investment Company Institute [ICI], 2003, p. 2). To get specific individual response data, a national telephone survey of 918 families with children 18 or younger was conducted in the spring of 2003.

Findings. Nearly two-thirds of the households surveyed reported saving for college expenses. Higher-income families were more likely to save, and other factors influencing savings behavior included parental education, parental age and the number of children in the family (ICI, 2003, p. 14). Among responding parents, paying for college was the third-most commonly listed household financial goal, at 82 percent (ICI, p. 13); financing retirement was a goal of the highest percentage of households (89 percent), followed by providing for emergencies (84 percent). Of those saving for college, the median number of years they reported saving is 7.4 with an average of 6.0 years; the amount families reported having saved is a median amount of $10,000 and an average amount of $23,600 (ICI, p. 61-62). The majority of parents (87 percent) felt it was very or somewhat likely that they would meet their savings goals, and their expected amount saved by their child's enrollment was a median amount of $35,000 with an average of $92,700 (ICI, p. 64-66). Of those families not currently saving for college, nearly two-thirds reported insufficient resources as one reason, and nearly half of the families not saving reported insufficient resources as the primary reason they were not saving (ICI, p. 17). The next most frequent reasons for not saving were an expectation that their child would receive financial aid (59 percent), the parents' assignment of college payment responsibilities to their child (53 percent) and an expectation that the child would receive a scholarship (52 percent) (ICI, p. 17).

Ninety-three percent of parents who reported saving were using investment options without a tax benefit such as traditional bank accounts, stocks, mutual funds and certificates of deposit. Thirty nine percent of families saving for educational expenses were using these non-tax-advantaged investment options exclusively (ICI, 2003, p. 22). Twenty percent of parents who were saving utilized the tax-advantaged educational savings options. The survey design further probed parents' awareness of tax-advantaged savings options and found that almost two-thirds of families who were saving knew of the various education-oriented savings options but did not hold any such account; 28 percent indicated that they would open such an account within the coming year (ICI, p. 32-35). Approximately half or greater of all the education-targeted accounts

held by parents in the survey were opened within four or fewer years of the survey. Factors associated with the use of education-oriented savings plans included greater household wealth (income, assets and current education-earmarked savings) and parents with a baccalaureate degree or higher.

Within the different educational savings options, the majority of parents with state-sponsored 529 savings accounts and Coverdell ESAs were informed about the accounts through their financial advisor. The reasons reported for using the different savings options were tied to the options' distinct features, such as tax-free withdrawal for the Coverdell ESA and institutional selection flexibility with the state-sponsored 529 plans (ICI, p. 43-51).

Focus on Borrowing (National Data)

The Education Resources Institute and the Institute for Higher Education Policy Study

The 1995 study of borrowing patterns of college students and their families, "College Debt and the American Family" by The Education Resources Institute and the Institute for Higher Education Policy, noted the trend in increased borrowing that began in the 1970s and mushroomed in the early 1990s. Parents and families borrowed $100 billion between 1990-1995, a total higher than that of the three preceding decades combined (p. 15-16). The increased volume of loan products on the market following revisions to the reauthorization of the Higher Education Act of 1992 was a major factor in this rise, according to the study, which found a 57 percent increase in borrowing in 1993 and 1994 when the reauthorization's changes first took effect. The study analyzed borrowing trends, demographics of borrowers and projections of total borrowing. It also included a nationally representative survey sample of 373 undergraduate students and their families who borrow to cover educational costs in order to probe the impact loan debt has on families and their futures.

Findings. From their analysis of loan data, the authors found that borrowing rates increased annually by 22 percent for students and families, while disposable personal income increased 4.7 percent and costs of attending a private institution increased 7.3 percent per year (The Education Resources Institute [TERI] & the Institute for Higher Education Policy [IHEP], 1995, p. 16). They further found that the number of parents taking out loans had not increased but the amount of loans per family had increased. Certain populations also were borrowing at disproportionate rates. Students at public four-year institutions increased their debt load between 1990 and 1993 by 13 percent, compared to a two percent increase in debt load for students at private four-year institutions. Non-white students had an increase in debt of 19 percent compared to an increase of nine percent for white students. Part-time students had a debt increase of 17 percent, compared to an eight percent increase for full-time students. And lastly, students in the non-traditional age groups saw a sizeable increase in their debt—20 percent for 25-34 year olds and 29 percent for 35-44 year olds—compared to a four percent increase for students ages 18-24 (TERI & IHEP, p. 24-27). As different groups of students accrue different debt levels, their level of risk also varied and the margin of error for success in postsecondary education narrows, in effect putting some students on shakier ground.

In their survey of attitudes about financial strategies for postsecondary education, the authors found agreement on the value of a college education (97 percent of respondents ranked it as very important) and simultaneously on its increasingly unreachable costs (87 percent found the costs rising at an unmanageable rate). When asked about the impact of present and future debt loads, respondents said they had considered leaving school (20 percent) and decreasing their course load (17 percent). Sixty-eight percent of respondents also felt educational loans were a hardship on their families, sixty-two percent said they expected to limit major spending as a result of educational costs, and 52 percent said any increased debt or spending would pose a major financial hardship (TERI & IHEP, 1995, p. 32-33). When asked about the reasons for taking out loans, respondents gave the same first-place rank for home loans and for loans to cover educational costs (42 percent each). Additionally, 17 percent responded that their monthly loan payments were higher than their monthly housing (mortgage or rent) payments (TERI & IHEP, p. 33).

The authors conclude by noting the need for close monitoring of borrowing trends and debt levels, especially in relation to their relative effects on different student groups, in order to maintain broad access to postsecondary education and the financial well-being of families generally.

Parent and Public Opinion Surveys (National Data)

Consumer Finance Surveys, Federal Reserve Board

The most recent report from the Federal Reserve Board's Survey of Consumer Finances examines shifts between 2001 and 2004 in family income, savings priorities, and net worth.

Findings. Changes in mean and median pre- and post-tax family income and net worth were varied across demographic groups, with some groups experiencing declines and others experiencing gains (Bucks, Kennickell, & Moore, 2006). Factors that account for this variability include increases in real estate values and ownership, decreased participation in the stock market, and sharply rising debt levels. Although both family assets and debts increased during the period, debt levels rose more quickly. The ratio of debts to assets for families rose 2.9 percent between 2001 and 2004 to 15.0 percent; the previous three-year period had realized a decrease in the ratio of debts to assets of 2.1 percent (Bucks et al., p. A25). Savings rates for families decreased over the three-year period, with a 3.1 percent decrease in families who reported having saved in the preceding year, yielding 56.1 percent of families as having saved; the previous survey in 2001 indicated an increase in family savings (Bucks et al., p. A7). Educational costs were cited by 11.6 percent of families in 2004 as the primary reason for saving. Retirement was reported as the leading reason for saving by 34.7 percent of families, followed by a need for "liquidity," often indicating concerns over future needs, by 30.0 percent of families (Bucks et al., p. A8).

Affordability and Access Surveys, Public Agenda and the National Center for Public Policy and Higher Education

In 2002, the National Center for Public Policy and Higher Education commissioned Public Agenda to examine the available public survey data on affordability in higher education. Their report, "The Affordability of Higher Education: A Review of Recent Survey Research," explored data between 1997 and 2001 from Public Agenda, the American Council on Education, iPoll (maintained by the Roper Center for Public Opinion Research) and two focus groups (Immerwahr, 2002a). Included in their analysis was information on the relative value, costs and degree of accessibility to higher education.

Findings. While the importance placed by the general public on college participation remained high (87 percent of respondents felt it is an extremely or very high priority), concerns about costs were also high. In a 1998 national survey of 2,106 adults sponsored by NBC News and the Wall Street Journal, 70 percent of respondents felt that a college education was too costly for an average family, compared to 44 percent who felt a house was beyond an average family income, and 36 who felt a secure retirement was out of reach (Immerwahr, 2002a, p. 5, 23). Accessibility, however, was not specifically as high a concern, since 87 percent of respondents in a 1999 poll felt students could choose to attend a cheaper institution or go part time (Immerwahr, 2002a, p. 7). Also, when discussing their own children, parents remained optimistic about their children's access to postsecondary education. In a later article, the study's author, John Immerwahr, reflected on this seemingly contradictory perspective: "College is still affordable but only if students are willing to 'scramble'. . . .When people say that any motivated person can go to college, they don't mean that it is easy to do so. In fact, the obstacles can overwhelm people" (Immerwahr, 2002b, p. 14). The National Center for Public Policy and Higher Education commissioned Public Agenda in 2004 to conduct a trend analysis in public attitudes towards higher education gathered from the two organizations' previous surveys in 1993, 1998, 2000 and 2003 (Immerwahr, 2004, p. 2).

The analysis found overall stability in attitudes about higher education but also highlighted a few key areas of public concern: decreasing access to higher education and a perceived increase in a college degree's importance for workplace success. Parents of high school students and African Americans were increasingly concerned about access, with 52 percent of parents of high school students in 2000 indicating that "the vast majority of qualified people do have an opportunity to attend college" and down to 34 percent of parents agreeing with that statement in 2003 (Immerwahr, 2004, p. 4). Additionally, fewer parents of high school students felt anyone needing financial help can get loans or aid to go to college, with 64 percent agreeing with that statement in 2000 and 46 percent agreeing in 2003 (Immerwahr, 2004, p. 5). For African Americans, the percentage who believed many qualified people do not have an opportunity to go to college increased from 60 percent to 76 percent between 2000 and 2003; white respondents had a smaller increase, from 44 to 51 percent in 2003 (Immerwahr, 2004, p. 5). At the same time, the public in general and African Americans in particular believe higher education is increasingly necessary to be successful in the workplace. In 2000, 35 percent of African Americans felt a college education is necessary for workplace success, while in 2003, 53 percent believed a college education is necessary for success (Immerwahr, 2004, p. 10). Further, 63 percent of African American respondents in 2003 felt that opportunities to attend college were more limited

for students from a low-income family and 56 percent felt students from a racial or ethnic minority had more limited opportunities for college (Immerwahr, 2004, p. 10). Finally, African American respondents' views on college quality have also fallen from 64 percent in 2000 to 35 percent in 2003 who state that colleges were "doing an excellent or good job" (Immerwahr, 2004, p. 12).

In the spring of 2007, Public Agenda released "Squeeze Play: How Parents and the Public Look at Higher Education Today," an updated public survey of attitudes towards postsecondary education and its costs (Immerwahr & Johnson, 2007). This national, randomized telephone survey of 1,001 adults, plus an oversample of 200 African-American and Hispanic parents of high school children, indicated that concerns over access to higher education are at their highest since the recession of the early 1990s.

Findings. In 2007, 62 percent of those surveyed responded that qualified and motivated students did not have an opportunity for postsecondary education, compared to the previous high of 60 percent in 1993 (Immerwahr & Johnson, 2007, p. 15). Additionally, an increasing number—50 percent in 2007 compared to 31 percent in 2000—concurrently felt a college education is essential. Fifty-nine percent of respondents further felt college education costs were rising faster or at the same rate as health care costs, and 78 percent agreed college students were borrowing too much to finance their education (Immerwahr & Johnson, 2007, p. 13). Yet the overwhelming majority of parents surveyed, 84 percent, felt they would be able somehow to finance their child's education costs (Immerwahr & Johnson, 2007, p. 19).

Findings

- **Families use a variety and combination of strategies to finance postsecondary costs.** Some studies found families use on average a combination of at least three strategies to fund postsecondary education costs. Parents' current income and savings and students' borrowing on average provided most of the college funding, but some families relied heavily on some less commonly used strategies, such as home equity loans.

- **Preparing to meet postsecondary costs remains a high priority in family financial planning, but other priorities, such as the need to save for retirement, are dominating financial concerns.** In addition to retirement costs, families also ranked preparing financially for emergencies and needing liquidity ahead of saving for college costs.

- **Family income has a role in a student's postsecondary attendance and financing of college costs.** Many studies indicate a relationship between the type of institution a student attends and what strategies students and families use to fund those institutional costs with family income.

- **Current income and savings play a key role in college attendance.** On average, the largest share of college costs was funded by parents' current income and savings. Studies also found that potential future earnings, both of parents and students, do not determine families' actual present-day decision making and that using current income, savings and income from working additional hours or taking another job were preferred strategies for families regardless of the type of institution the student attended.

- **Saving and borrowing patterns are highly influenced by changes in the overall economy as well as changes in the costs to attend college.** Many studies indicated strong changes in behavior over time, suggesting a need for information on an ongoing basis to assess the impacts of these changes.

- **Parents' and students' perceived costs of college influence college attendance**. Many studies indicated that the perceived costs of college influence not only a student's enrollment but whether a student considers applying to an institution, thereby removing any potential financial aid offer as a factor in college choice.

- **There is a scarcity of current family financial decision making data at the state level.** Existing state-level family surveys are useful but have not been done in over 10 years.

- **The assignment of parent and student contributions may not approximate actual decision making or shifts in financing strategies.** Large differences exist between families in how parents and students contribute to the costs of a college education. Changing financing options, such as the rise of private loans, may be further blurring the distinction between student and family contributions.

- **Parents may not be realistic in their estimates of the costs of college, nor in their preparation to meet those costs.** Although concerns over the costs of college were notably higher for parents of high school students than for the general population, many parents still indicated a lack of accurate information about the costs of college and were not saving at an adequate rate to be able to contribute to their child's postsecondary costs.

- **Students may not be realistic in estimating their loan repayments.** Similar to parents' lack of accurate information about college costs, college students often underestimated their loan repayment amounts.

- **Rising educational costs have had a disproportionate effect on different groups of students, from families at different income levels, attending different types of institutions.** Certain groups of borrowers, both students and parents, are taking out increasing amounts of debt and may be putting themselves at increased risk. Some studies suggest that students from lower-income families are accruing a higher debt load, and that both students and parents who borrow are taking out increasing amounts in loans. Additionally, students attending part time, attending four-year public institutions or who are non-white or non-traditional aged (24 and older) have been borrowing at increasing rates since the 1990s.

- **Across income levels, many families do not fill out the Free Application for Federal Student Aid (or FAFSA).** Some studies indicate that 25 percent of families overall did not fill out the FAFSA, including 23 percent of families with annual incomes between $35,000 and $50,000.

- **Although parents feel the costs of education have been rising too fast, they also feel they will be able to meet those costs. They also consistently place a high value on their children's participating in higher education.** Perceptions of college have remained relatively stable, but for certain groups, concerns over access and affordability are growing. In recent surveys, African American parents of high school students have indicated a sharp rise in beliefs that a college education is essential for success in the workplace but also that qualified people may not have the opportunity to go to college.

- **The extent to which family finances played a role in students not enrolling or dropping out of college has not been adequately studied.** Most of the existing studies examine the population of college-going students, omitting those who did not enroll and the extent to which finances may have played a role in that decision.

- **Much still is unknown about how students and families meet the often sizable gap between costs of attendance and the expected family contribution.** Some of the studies point to a growing discrepancy between expected family contributions and college costs and an increased use of alternative strategies, such as delayed or part-time attendance, that may have negative repercussions for students.

Opportunity for Further Study

Several studies presented in this report conclude that families' financial decision-making and planning change substantially, not only with the economy and changes in family circumstances, but also with changes in the financing programs and products available. Parents' income, contribution to postsecondary costs and awareness and use of available financing options also play a strong role in determining college participation rates for their children. There is also evidence that examining family financial decisions requires exploring the full detailed range of strategies families actually use rather than the larger categories of saving and borrowing. Some strategies may be contributing to families' financial risks, and others may be shifting increased financial burdens onto students.

Further study of how families contribute to educational costs, especially at the individual level within the state, could enhance our understanding of how financial decision making impacts postsecondary participation for students, including those who do not ultimately enroll in higher education. It can also better reflect the impact these costs have on students and families, now and into the future.

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Comparing the Minnesota State Grant Program

Minnesota State Grant Review

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Introduction

This report compares the Minnesota State Grant program to grant programs in other states. Across the country, state governments use many different tools to enhance college access for students: appropriation of public dollars to institutions, information campaigns, tuition policies, tuition reciprocity, state financial aid programs and other tools. Each state utilizes its own combination of approaches. This report focuses on only one of those tools – state grant programs.

Specifics of a state grant program

The components of state grant programs may include:

- Its purpose
- Its source of revenue/appropriation
- The state grant award formula
- Spending constraint mechanisms/eligibility criteria
- The delivery system

Comparisons should be made cautiously, acknowledging the different characteristics of each state and the policy goals of state grant programs.

The stated purposes of state-sponsored financial aid programs vary widely. Some are need-based while others are merit-based. Some are designed to keep students in the state, while others are designed to encourage students to major in a specific field. Some are designed to encourage full-time enrollment, while others provide assistance to students who are primarily working. Each state has a different historical mix of policy goals, oftentimes evolving and changing over time.

The source of funds for state grants may also vary widely, ranging from general fund appropriations to dedicated revenue from lottery, gambling or sales taxes to charitable gifts.

Many different approaches are used in awarding state grants, depending upon the funds available the program purpose.

All programs have eligibility criteria and budget variables that serve as spending constrain mechanisms. These constraints may include residency requirements, academic requirements, institution eligibility requirements, maximum awards, maximum appropriations and process constraints such as application deadlines.

National Overview

The annual survey conducted by the National Association of State Student Grant and Aid Programs released May 2008, indicates states awarded nearly $9.3 billion in student financial aid (grants, scholarships, loans and work study) in academic year 2006-2007, an increase of 10 percent from the $8.5 billion awarded in 2005-2006, an increase of about six percent in constant dollar terms. The majority of state aid is in the form of grants. In 2006-2007, states provided $7.6 billion in grant aid annually including both need- and merit-based aid, an increase of 8.5 percent from the $7 billion is grant awarded in 2005-2006. Of the grant funds awarded, 72 percent were need-based and 28 percent were non-need based, almost the same percentage as in 2005-2006.

Forty-eight states identified state-funded undergraduate programs with awards based solely on need, and 27 identified programs with awards based only on merit. Exclusively need-based aid constituted 49 percent of all aid to undergraduates. Exclusively merit-based aid accounted for 20 percent of all aid to undergraduates. The remaining 32 percent of all aid was a combination of programs with both need and merit components.

The amount of undergraduate aid awarded in 2006-2007 through programs with a merit component increased to about $2.76 billion. This compared to $4.07 billion awarded to undergraduates through programs based only on need. South Carolina, Washington D.C., Indiana, Georgia and New York provided the greatest amount of grant aid on a per capita basis and, along with Kentucky and West Virginia, were the largest providers of aid per capita for the population between ages 18 and 24. South Carolina, Georgia, Kentucky, New York and Tennessee provided the most undergraduate grant dollars compared to undergraduate full-time equivalent enrollment. South Carolina, Indiana, Georgia, Pennsylvania and Vermont had the highest proportion of total expenditures for state-funded grants compared to appropriations for higher education operating expenditures.

Minnesota State Grant Program

The Minnesota State Grant program is a need-based financial aid program for Minnesota residents attending public and private postsecondary institutions in Minnesota. The program, first established in 1973, awarded $156 million in gift aid to 80,182 students in fiscal year 2006-2007. The Minnesota State Grant program is based solely on need; however, students must continue to make satisfactory progress toward their degrees or certificates in order to continue to receive the award. Minnesota is one of 33 states allowing students who attend proprietary institutions to receive state grants.

For the 2006-2007 academic year, Minnesota's State Grant program was the 18th largest in the nation when both need-based and non-need based grant aid were considered. The program ranks seventh in the nation in estimated need-based grant dollars per full-time student. Minnesota's State Grant program ranked 13th in the nation in overall grant aid per capita. The state's rank was also 13th in grant dollars awarded per population age 18 through 24.

Total State Awarded Grant Dollars Per Capita 2006-2007

State		Estimated population	Total Grant Dollars/Population
1	South Carolina	4,321,249	$63.24
2	Washington DC	581,530	57.89
3	Indiana	6,313,520	52.55
4	Georgia	9,363,941	51.98
5	New York	19,306,183	44.80
6	Kentucky	4,206,074	43.84
7	West Virginia	1,818,470	42.91
8	Tennessee	6,038,803	38.90
9	Pennsylvania	12,440,621	37.67
10	New Mexico	1,954,599	36.48
11	Illinois	12,831,970	34.82
12	New Jersey	8,724,560	32.16
13	Minnesota	5,167,101	31.56

Source: 2006-2007 National Association of State Student Grant and Aid Programs, includes need- and merit-based state gift aid.

Among need-based state Grant programs, Minnesota's is the 11th largest in the country.

Total Need-Based State Grant 2006-2007

State		Need-Based State Grant in Millions
1	New York	$843.694
2	California	763.399
3	Pennsylvania	468.319
4	Illinois	418.820
5	Texas	410.916
6	Indiana	322.940
7	New Jersey	249.889
8	Washington	181.824
9	Ohio	177.559
10	North Carolina	170.127
11	Minnesota	162.987

Source: National Association of State Student Grant and Aid Programs

Among need-based state programs, Minnesota ranked seventh in need-based grant dollars per undergraduate full-time student.

State Need-Based Aid Awarded Per Undergraduate Full-time Equivalent 2006-2007

State		Undergraduate FTE	Total Need-Based Grant Dollars/FTE
1	New York	800,960	$1,049.27
2	New Jersey	266,377	932.86
3	Pennsylvania	512,715	893.25
4	Illinois	520,619	804.37
5	Washington	240,454	756.11
6	Indiana	260,404	734.91
7	Minnesota	227,926	714.44

Source: National Association of State Student Grant and Aid Programs, Integrated Postsecondary Data System fall enrollment FTE for 2005

When need-based and non need-based grants are considered, Minnesota's State Grant program ranked 10th largest in the percentage of awards per full-time undergraduate student.

Percentage of Full-Time Equivalent Students Receiving State Grants

State		Number of Awards/FTE
1	Georgia	72.50%
2	Alaska	71.40%
3	Kentucky	63.60%
4	South Carolina	62.90%
5	Nevada	60.70%
6	New Mexico	57.60%
7	Oklahoma	57.60%
8	Florida	46.20%
9	Puerto Rico	44.00%
10	Minnesota	43.70%

Source: National Association of State Student Grant and Aid Programs, 2005-2006

When merit-based state grant programs are eliminated from the list above, Minnesota had the highest need-based average award per student at $1,947 compared to Alaska at $1,010, Oklahoma at $762, and Puerto Rico at $302.

Need-Based Expenditure Divided by the Number of Recipients 2006-2007

State		Number of Awards/FTE	Maximum Award	Number of Award	Expenditure / number of recipients
1	Alaska	71.40%	$3,000	581	$1,010
2	Oklahoma	57.60%	$1,300	26,065	$762
3	Puerto Rico	44.00%		65,903	$302
4	Minnesota	43.70%	$8,372	80,182	$1,947

Source: National Association of State Student Grant and Aid Programs

Another way to compare state grants is to determine how much the state is spending on the state grant program compared to the operating expenses of the public higher education systems. Minnesota's State Grant is 11.6 percent when compared to the funds the state contributes to the operating expenses of public institutions. That makes Minnesota the 13th highest ratio of state grant expenditure to the total operating expenditure allocated to public higher education institutions.

State Financial Aid as a Percentage of Higher Education Operating Expenses 2006-2007

State	State Grant as a Percent of Operating Expenses
1 South Carolina	31.80%
2 Indiana	22.80%
3 Georgia	22.10%
4 Pennsylvania	21.80%
5 Vermont	21.50%
6 West Virginia	20.00%
7 Tennessee	18.70%
8 New York	18.00%
9 Illinois	16.00%
10 Kentucky	14.70%
11 New Jersey	14.10%
12 Florida	13.50%
13 Minnesota	11.60%

Source: National Association of State Student Grant and Aid Programs

Grant Award Formulas

This next section shows comparisons of the state grant for Minnesota, Oregon, Illinois, New York and Vermont. The charts show three family incomes at four-year and two-year public colleges.

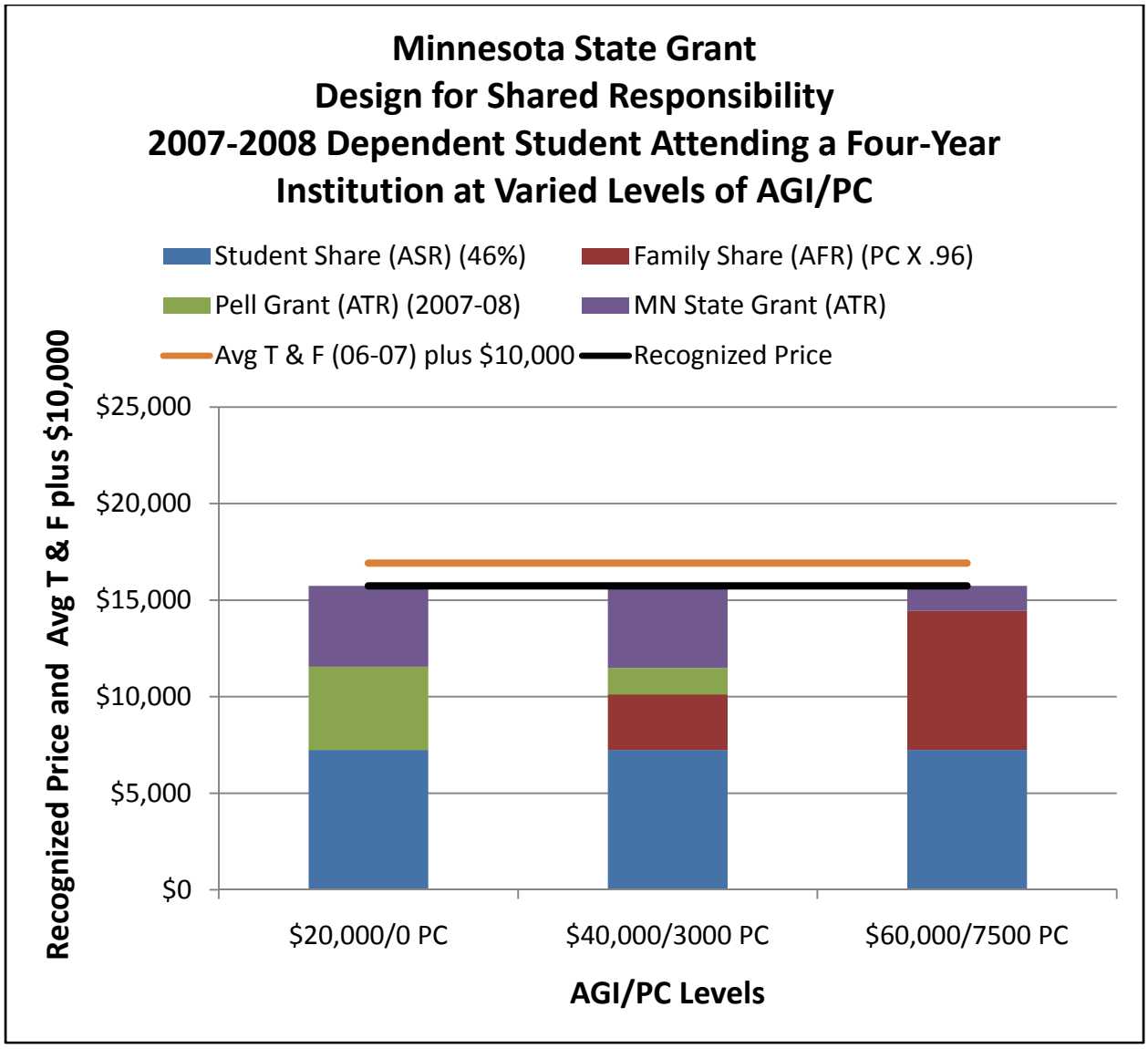
Minnesota State Grant Formula

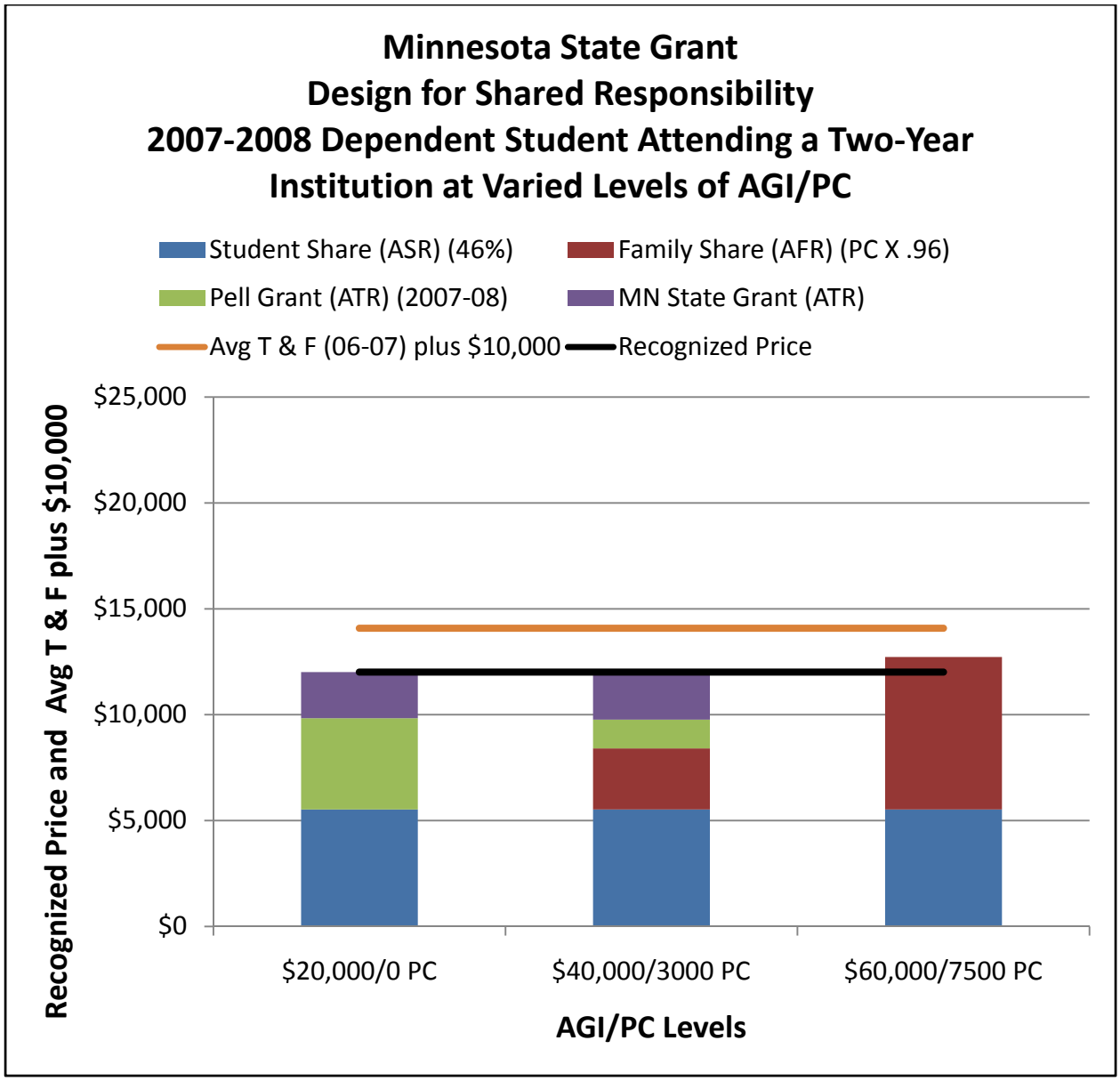
The Minnesota State Grant formula, referred to as the Design for Shared Responsibility, starts by establishing the recognized Cost of Attendance which is the sum of the tuition and fee maximums plus a Living and Miscellaneous Expense amount. The maximum tuitions and the LME are established by the legislature. The next step is to determine how much the students will contribute (the Assigned Student Responsibility). That amount is a percent, also set by the legislature, currently at 46 percent of the cost of attendance.

The second contributor to the student's cost of attendance is the family. The family's assigned responsibility is established by the federal need analysis as modified by the Minnesota Legislature. For instance, for 2007-2008 the "Assigned family responsibility" means the amount of a family's contribution to a student's cost of attendance, as determined by a federal need analysis. For dependent students, the assigned family responsibility is 96 percent of the parental contribution. For independent students with dependents other than a spouse, the assigned family responsibility is 86 percent of the student contribution. For independent students without dependents other than a spouse, the assigned family responsibility is 68 percent of the student contribution. The percentage of reduction is established by the legislature.

The remaining Cost of Attendance is assigned to the taxpayers. The taxpayer responsibility is handled by the Federal Pell Grant and the State Grant. The cost of attendance not covered by the Assigned Student Responsibility, the Assigned Family Responsibility, and the Federal Pell Grant becomes the responsibility of the Minnesota State Grant Program.

The chart on the following page represents Minnesota's State Grant calculation.


Minnesota State Grant
Design for Shared Responsibility
2007-2008 Dependent Student Attending a Four-Year Institution at Varied Levels of AGI/PC
Student Share (ASR) (46%)
Family Share (AFR) (PC X .96)
Pell Grant (ATR) (2007-08)
MN State Grant (ATR)
Avg T & F (06-07) plus $10,000
Recognized Price
Recognized Price and Avg T & F plus $10,000
$25,000
$20,000
$15,000
$10,000
$5,000
$0
$20,000/0 PC
$40,000/3000 PC
$60,000/7500 PC
AGI/PC Levels



Note: The budget for the two-year college is smaller than the budget for the four year college and thus the height of the axis on the left is shorter. The black horizontal line represents the recognized Cost of Attendance while the brown line above it represents the tuition and fees plus $10,000.

Oregon State Grant Formula

In Fiscal Year 2007-2008, Oregon changed how it calculated its state grant. The Oregon Opportunity Grant was redesigned and patterned after Minnesota's Design for Shared Responsibility. When Oregon made this change, it also increased the state grant funds from $33 million to $72 million. It is estimated that the demand may be $77.1 million this first year.

The calculation starts by establishing the cost of attendance with the average tuition and fees for four-year institutions at $5,856 and two-year institutions at $3,176. The non-tuition costs in the cost of attendance are $10,627 for both two- and four-year colleges.

Once the Cost of Attendance is established, the assigned responsibilities are subtracted for the three parties: the student, the family and the taxpayers. The Assigned Student Responsibility for a community college student is based on 90 percent of a student's earnings at 15 hour/week for 48 weeks at Oregon minimum wage ($7.95 in 2008, $8.65 in 2009). The student share for public and private four-year institutions includes an additional $3,000 because Oregon expects four-year students to take out a $3,000 loan. For 2008-2009, the student share is $5,200 for community college students and $8,200 for students at four-year colleges.

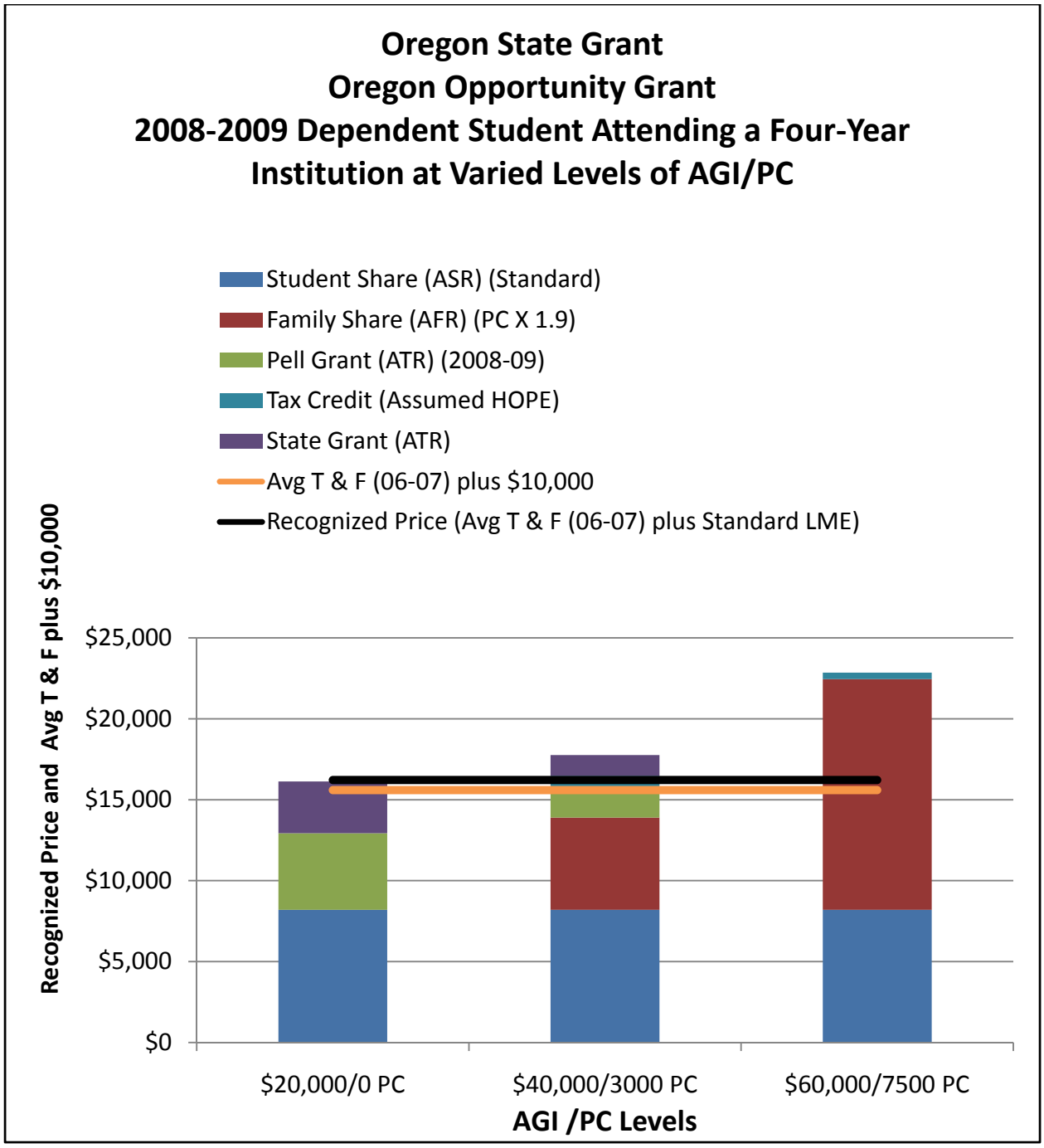
The Assigned Family Responsibility is the family contribution (including the students calculated contribution) multiplied by 1.9. If the Assigned Student Responsibility and the Assigned Family's Responsibility do not cover the Cost of Attendance, the taxpayers are assigned the remaining portion of the cost.

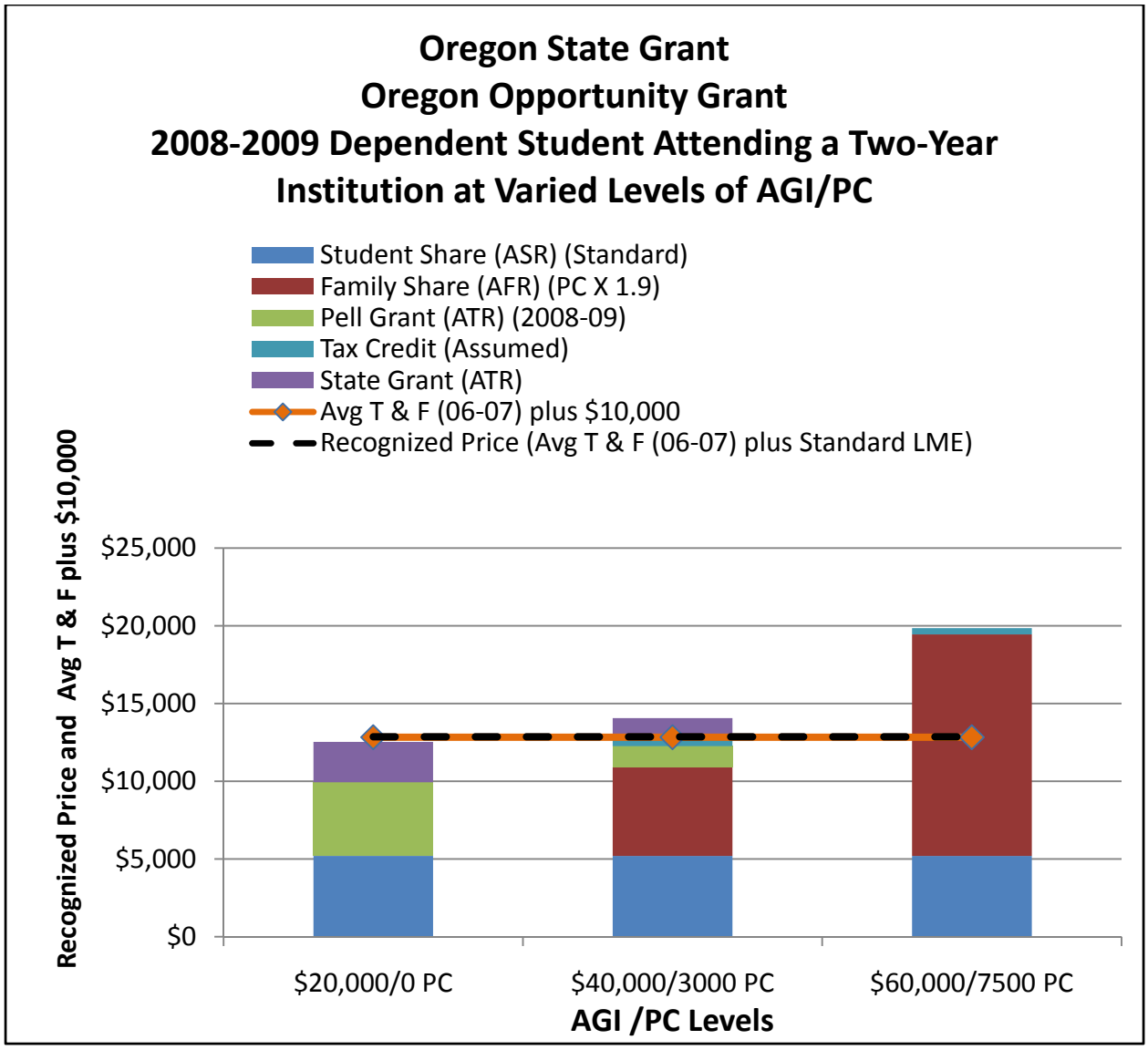
The Assigned Taxpayers Responsibility is shared by three programs: the federal Pell grant, the federal Hope Tax Credit and the Oregon State Grant. Although Oregon can subtract the actual Pell Grant the student will receive, the Hope Tax Credit must be assumed. Oregon calculated the Hope Tax Credit for all students within the family income range eligible for the credit. The Lifetime Learning Tax Credit is not used. The maximum Hope Tax Credit is currently $1,650.

If there is a remaining Cost of Attendance after the Assigned Student Responsibility, the Assigned Family Responsibility, the Pell Grant and the Hope Tax Credit have been subtracted, then Oregon awards a state grant up to a maximum of $3,200 for a student at a four-year institution and a maximum or $2,600 for a student at a two-year institution. These maximum awards are double the award amount before the new Shared Responsibility calculation.

Since the tuition and fees used is based on the average public four-year college tuition and fees, private college students who, under the past Oregon state grant calculation, would have received a higher award are grandfathered in. Oregon does not award students at proprietary institutions.

Grandfathered awards could technically apply to any student whose new Shared Responsibility Model award is lower than the award received last year under the old methodology.


Oregon State Grant
Oregon Opportunity Grant
2008-2009 Dependent Student Attending a Four-Year Institution at Varied Levels of AGI/PC
Student Share (ASR) (Standard)
Family Share (AFR) (PC X 1.9)
Pell Grant (ATR) (2008-09)
Tax Credit (Assumed HOPE)
State Grant (ATR)
Avg T & F (06-07) plus $10,000
Recognized Price (Avg T & F (06-07) plus Standard LME)
Recognized Price and Avg T & F plus $10,000
$25,000
$20,000
$15,000
$10,000
$5,000
$0
$20,000/0 PC
$40,000/3000 PC
$60,000/7500 PC
AGI /PC Levels


Oregon State Grant
Oregon Opportunity Grant
2008-2009 Dependent Student Attending a Two-Year Institution at Varied Levels of AGI/PC
Student Share (ASR) (Standard)
Family Share (AFR) (PC X 1.9)
Pell Grant (ATR) (2008-09)
Tax Credit (Assumed)
State Grant (ATR)
Avg T & F (06-07) plus $10,000
Recognized Price (Avg T & F (06-07) plus Standard LME)
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$10,000
$5,000
$0
$20,000/0 PC
$40,000/3000 PC
$60,000/7500 PC
AGI /PC Levels

Illinois State Grant Formula

The Illinois State Grant, Monetary Award Program is calculated based on a student budget, which is 2003-2004 tuition and fees (no cap) plus a uniform living allowance of $4,875 (for academic year 2007-2008), minus an Illinois inflated EFC including a minimum student self-help expectation of $1,800, minus 80 percent of Pell eligibility. When calculating eligibility, Illinois uses 80 percent of the 03-04 Pell because it corresponds to the 2003-2004 tuition and fees that are also used, even though the student actually receives Pell funds based on 2008-2009 Pell eligibility.

Illinois used to recognize current tuition and fees but in 2004-2005 the state chose not to invest the amount of funds necessary to cover the actual tuition and fees for that year and they have remained at the 2003-2004 tuition and fees ever since. They estimate that recognizing current tuition and fees would cost more than $50 million at this point.

For academic year 2007-2008, Illinois initial awards are limited to the lesser of the program maximum award of $4,968, 100 percent of academic year 2003-2004 tuition and fees, or maximum eligibility. A student must have a minimum initial eligibility of $300 to be considered for an award. No awards are provided to applicants with a federal EFC of $9,000 or greater. Awards were suspended in August 2008 due to lack of funds.

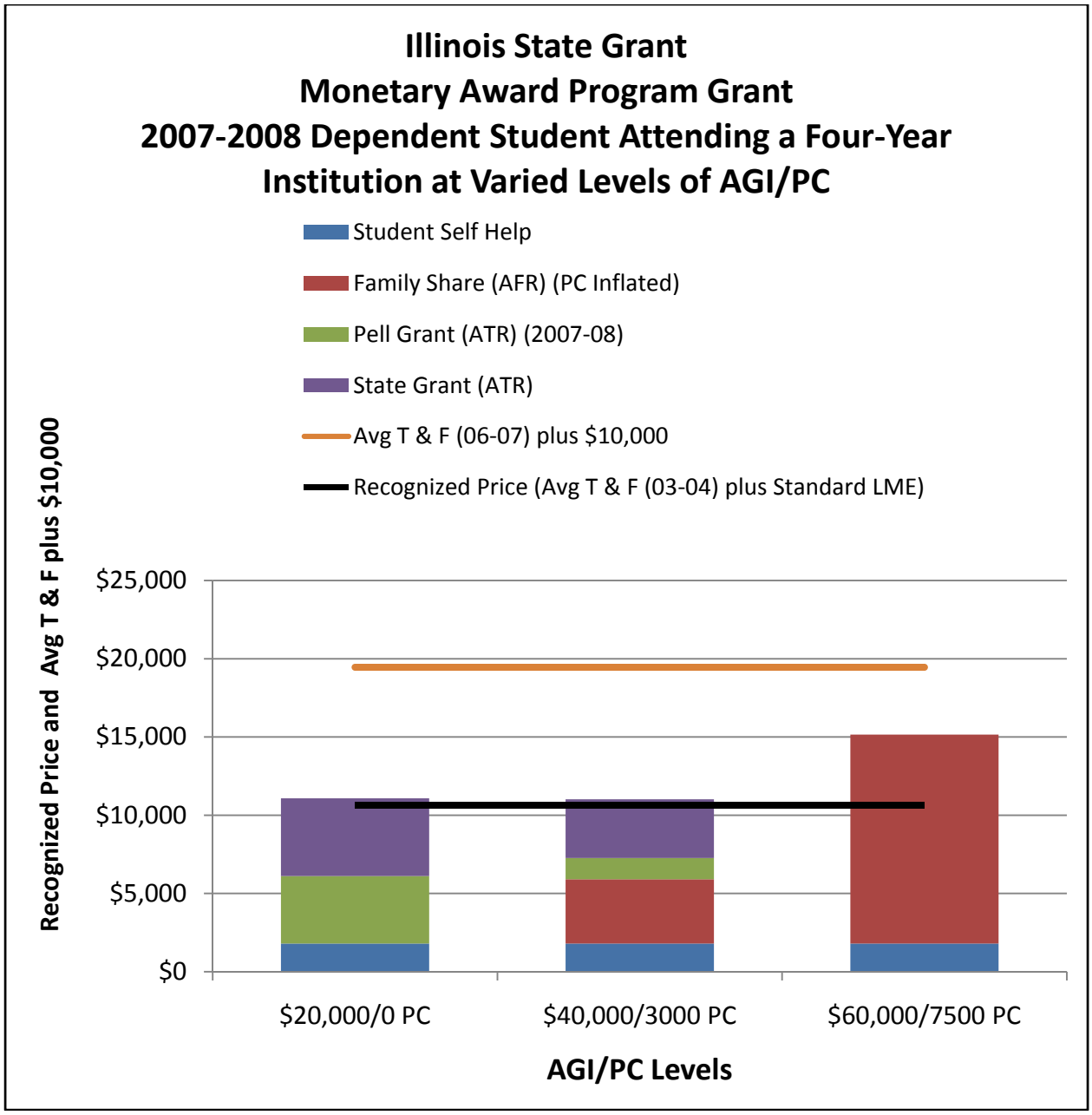
For example, if the student attended an institution with $4,000 tuition and had a $0 federal Expected Family Contribution, Illinois would use a budget of $8,875, subtract $1,800 in self-help, subtract about $3,600 or so for the Pell Grant, and give an award of about $3,475 depending on rounding.

Illinois inflates the Expected Family Contribution by an inflation factor. The following chart is an example of the inflation amounts.

Illinois Expected Family Contribution Adjustment Factor

EFC	x1.1	Progressive Factor	ISAC Adjustment Factor	Adjusted EFC
$500	550	0.05	1.15	$573
1,000	1,100	0.09	1.19	$1,191
2,000	2,200	0.18	1.28	$2,564
3,000	3,300	0.27	1.37	$4,118
4,000	4,400	0.36	1.46	$5,855
5,000	5,500	0.45	1.55	$7,773
6,000	6,600	0.55	1.65	$9,873
7,000	7,700	0.64	1.74	$12,155
8,000	8,800	0.73	1.83	$14,618

Of the 236,000 eligible students, Illinois is able to award 146,000 students.


Illinois State Grant
Monetary Award Program Grant
2007-2008 Dependent Student Attending a Four-Year Institution at Varied Levels of AGI/PC
Student Self Help
Family Share (AFR) (PC Inflated)
Pell Grant (ATR) (2007-08)
State Grant (ATR)
Avg T & F (06-07) plus $10,000
Recognized Price (Avg T & F (03-04) plus Standard LME)
Recognized Price and Avg T & F plus $10,000
$25,000
$20,000
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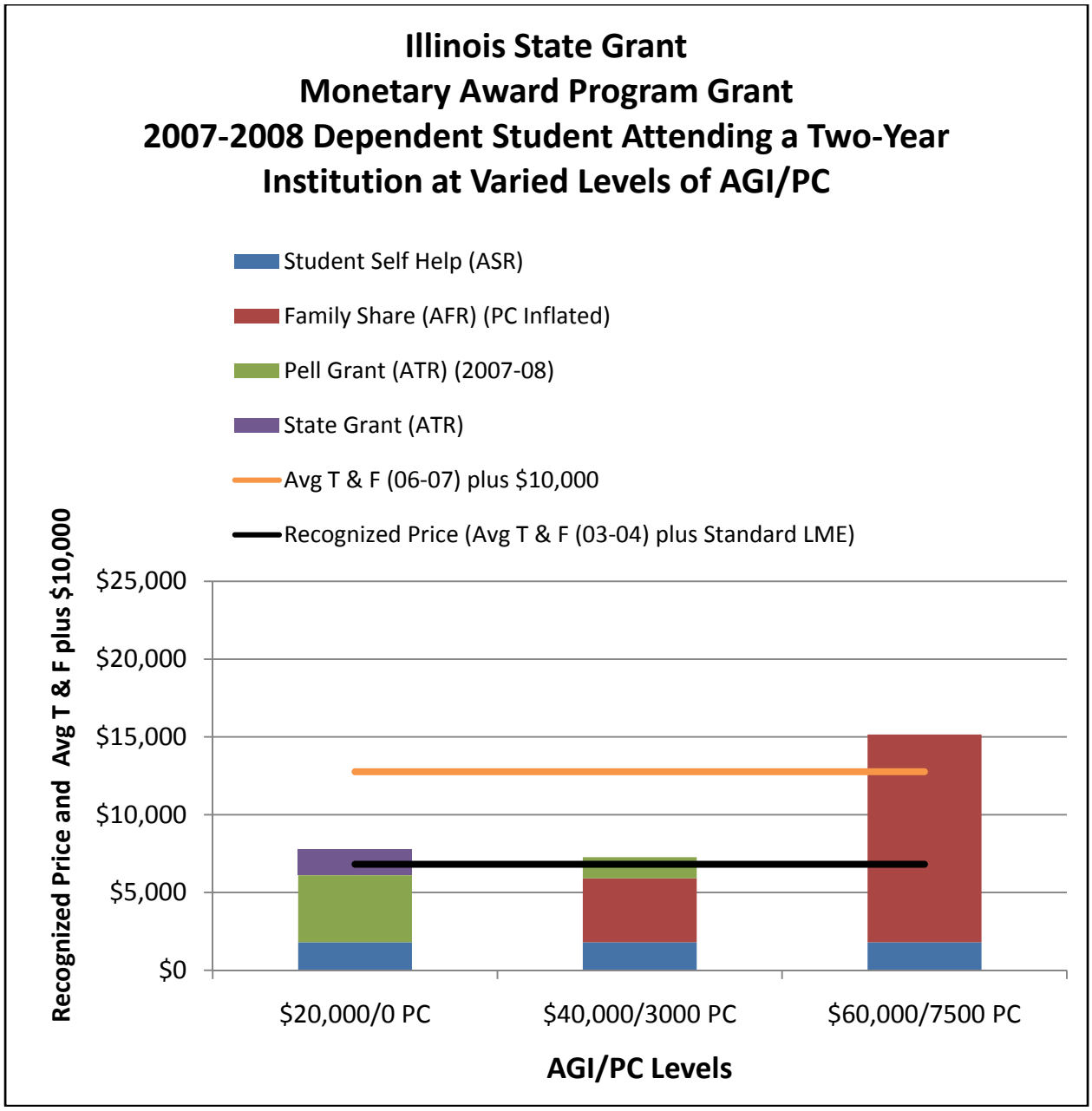
$5,000
$0
$20,000/0 PC
$40,000/3000 PC
$60,000/7500 PC
AGI/PC Levels


Illinois State Grant
Monetary Award Program Grant
2007-2008 Dependent Student Attending a Two-Year Institution at Varied Levels of AGI/PC
Student Self Help (ASR)
Family Share (AFR) (PC Inflated)
Pell Grant (ATR) (2007-08)
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$10,000
$5,000
$0
$20,000/0 PC
$40,000/3000 PC
$60,000/7500 PC
AGI/PC Levels

New York State Grant Formula

The New York State Grant, Tuition Assistance Program (TAP), is the tuition minus an amount from a look up chart up to the maximum allowed award. The adjusted gross used is the New York adjusted gross income of the family. According to the state grant officials, the New York adjusted gross income is about $17,000 less than the federal adjusted gross income. The program is funded as an entitlement so they do not run out of money. In some cased when the program is low on funds, a supplemental appropriation is made. At other times, awards are late as funding is secured during the next legislative session. The program has not been short of funds for the last 15 years.

The following are the tuitions used for this year:

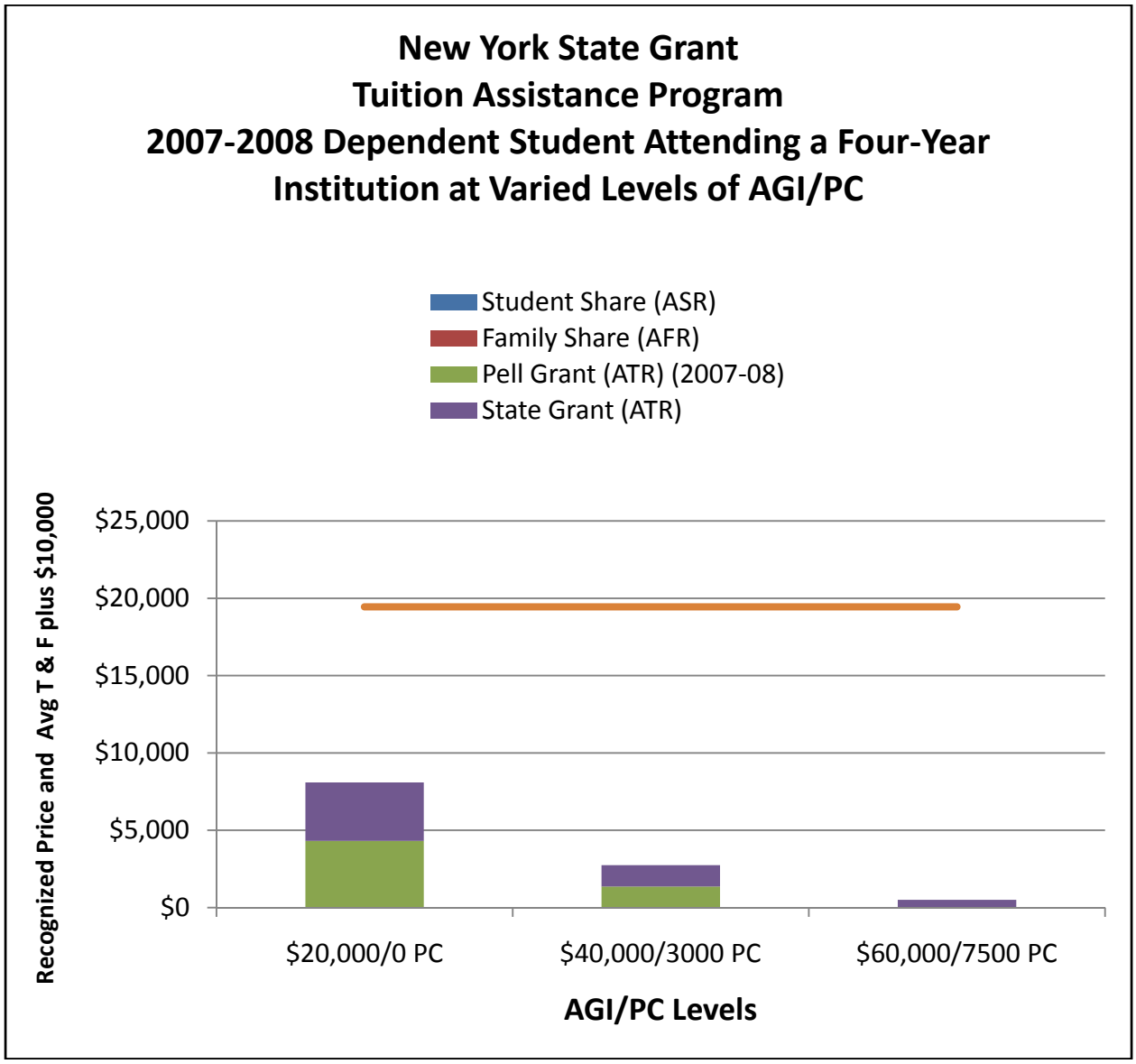
- State University of New York's tuition is $4,375
- City University of New York's four-year tuition is $4,000
- City University of New York's community colleges tuition is $2,800
- State University of New York's community college tuition is variable - about $3,000

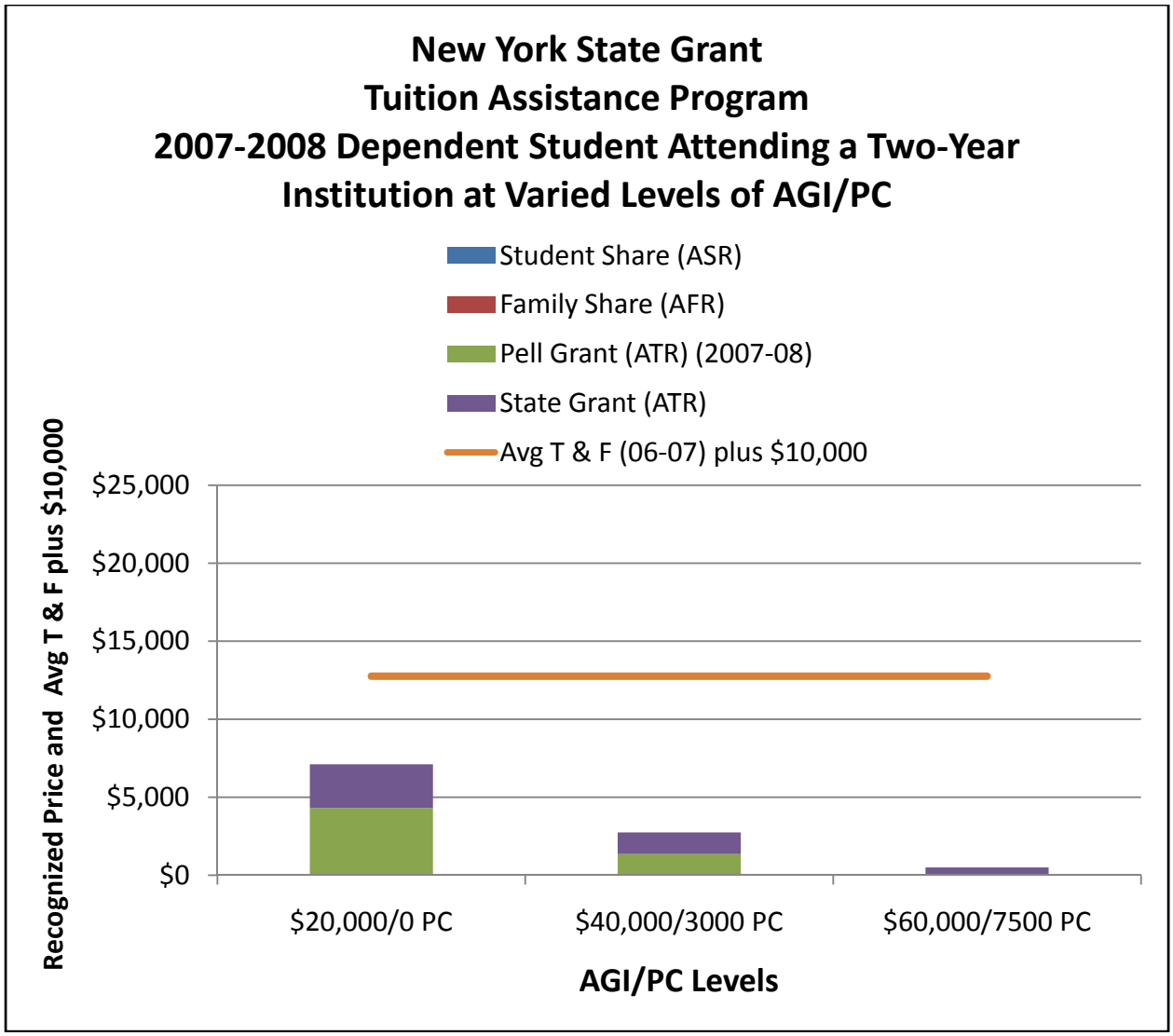
The following is the reduction chart for dependent students:

NYS NTI	Tuition Amount	Current Dependent Schedule E Award Amount
$0	$5,000	$5,000
$7,000	$5,000	$5,000
$10,000	$5,000	$4,790
$15,000	$5,000	$4,320
$20,000	$5,000	$3,780
$25,000	$5,000	$3,180
$30,000	$5,000	$2,580
$35,000	$5,000	$1,980
$40,000	$5,000	$1,380
$45,000	$5,000	$780
$47,337	$5,000	$500
$50,000	$5,000	$500
$55,000	$5,000	$500
$60,000	$5,000	$500
$61,800	$5,000	$500
$65,000	$5,000	$500
$70,000	$5,000	$500
$71,488	$5,000	$500
$80,000	$5,000	$500

Every family up to a New York adjusted gross income of $80,000 is awarded a grant.

The following charts show the New York state grant awards. Since New York does not start with a Cost of Attendance, the black Cost of Attendance line is missing from these charts.




New York State Grant
Tuition Assistance Program
2007-2008 Dependent Student Attending a Two-Year Institution at Varied Levels of AGI/PC
Student Share (ASR)
Family Share (AFR)
Pell Grant (ATR) (2007-08)
State Grant (ATR)
Avg T & F (06-07) plus $10,000
Recognized Price and Avg T & F plus $10,000
$25,000
$20,000
$15,000
$10,000
$5,000
$0
$20,000/0 PC
$40,000/3000 PC
$60,000/7500 PC
AGI/PC Levels

Vermont State Grant Formula

The Vermont Incentive Grant sets "levels" for each college that students in the applicant pool are attending. Vermont grants are portable. Levels are determined by looking at the cost of the institution, the geographic location (out-of-state levels are capped at Vermont State College level), and a potential dollar increase or decrease in levels from year to year.

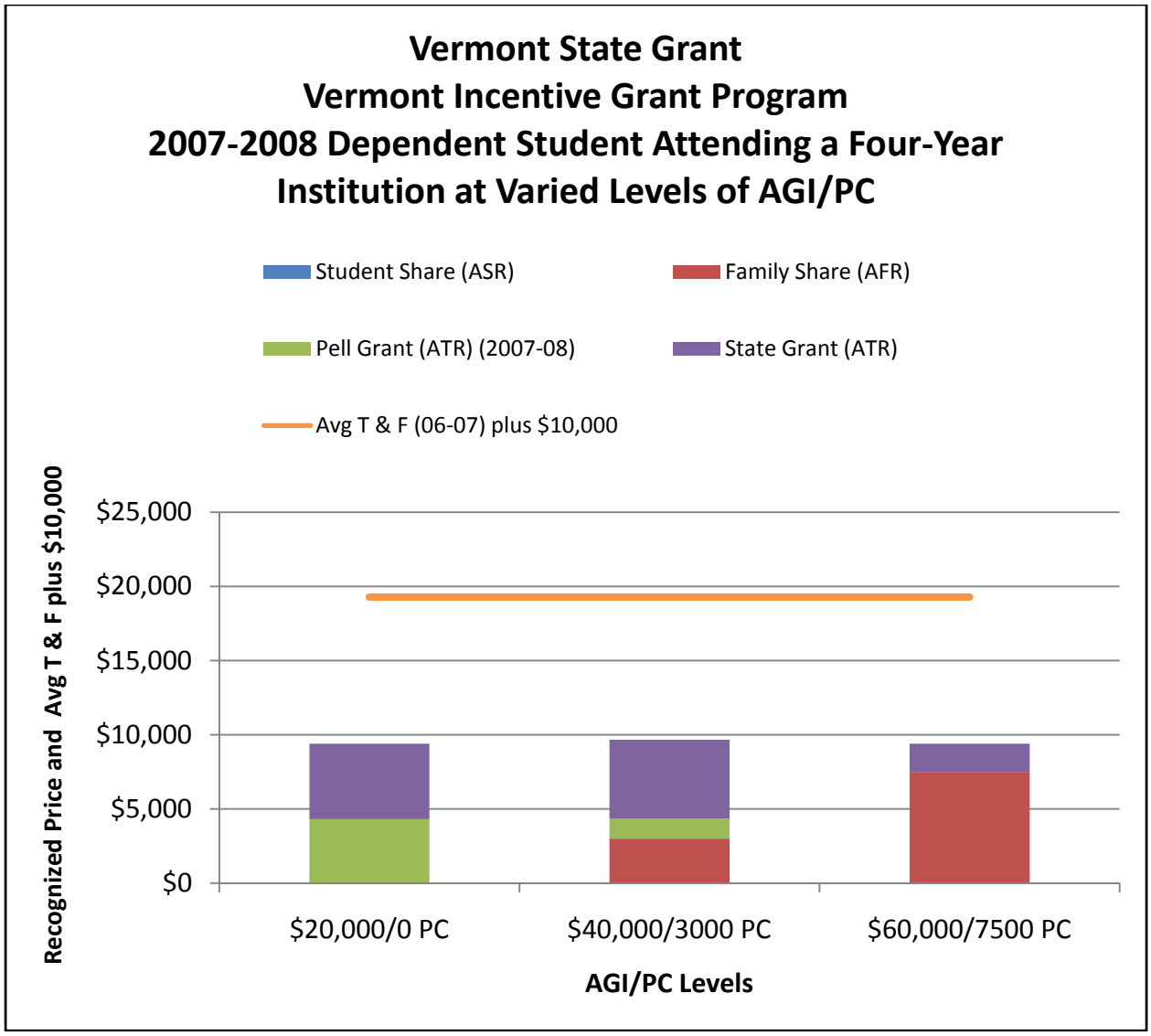
There is a rolling cutoff date based on a first-come, first,served model. For the 2007-2008 academic year, the Vermont Incentive Grant program which is for full-time students only, cuts off applications on October 31, 2007. Once the cut off is announced to schools and agencies, applications dwindle so the state agency does not really know what percent of eligible students are funded. They had almost 16,000 applicants in the full-time programs and only 156 of them were tagged as "late".

Levels for 2007-2008 were:

- $5,300 at community colleges
- $7,250 at state colleges
- $9,400 at the university
- $10,600 at the state's most expensive in-state private colleges
- $7,250 for out-of-state colleges that are at least as expensive as state college system.

Once levels and family contributions have been determined, there are two calculations that an applicant may be run through. Vermont starts with the level and subtracts the Family Contribution, Pell award and a few other resources such as tuition waivers. The Vermont Incentive Grants range from $500 to $10,800 at a high cost Vermont private college.

If students do not qualify for an Incentive Grant, they are considered for a Basic Incentive Grant. These are $500 awards. If parental contribution or student contribution exceeds $21,750, the student is not eligible for Vermont State Grant, regardless of need.


Vermont State Grant
Vermont Incentive Grant Program
2007-2008 Dependent Student Attending a Four-Year Institution at Varied Levels of AGI/PC
Student Share (ASR)
Family Share (AFR)
Pell Grant (ATR) (2007-08)
State Grant (ATR)
Avg T & F (06-07) plus $10,000
Recognized Price and Avg T & F plus $10,000
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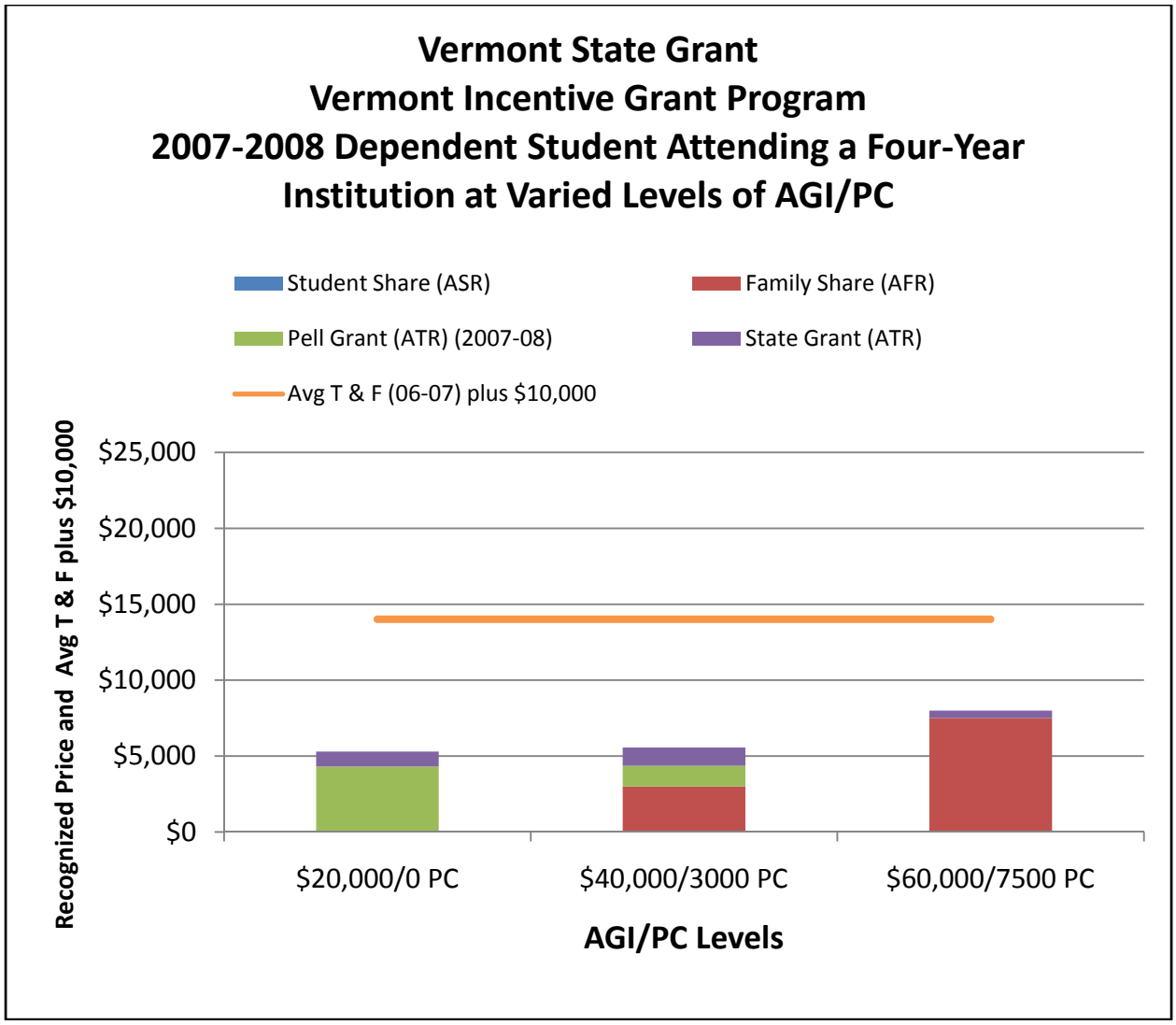
$40,000/3000 PC
$60,000/7500 PC
AGI/PC Levels


Vermont State Grant
Vermont Incentive Grant Program
2007-2008 Dependent Student Attending a Four-Year Institution at Varied Levels of AGI/PC
Student Share (ASR)
Family Share (AFR)
Pell Grant (ATR) (2007-08)
State Grant (ATR)
Avg T & F (06-07) plus $10,000
Recognized Price and Avg T & F plus $10,000
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$20,000
$15,000
$10,000
$5,000
$0
$20,000/0 PC
$40,000/3000 PC
$60,000/7500 PC
AGI/PC Levels

Wisconsin State Grant Formula

The Wisconsin State Grant program is actually several state grant programs. It was not possible to show the typical award using the graph pattern that was used. Wisconsin has seven different state grants for several different populations of students.

The Wisconsin Higher Education Grant Program provides grant assistance to undergraduate, Wisconsin residents enrolled at least half time in degree or certificate programs at University of Wisconsin, Wisconsin Technical College and Tribal institutions. Awards are based on financial need. Eligibility cannot exceed 10 semesters. The minimum and maximum awards are set annually by the Higher Education Aids Board and may not exceed $3,000.

Wisconsin Tuition Grant program provided $25 million to 10,073 students attending independent colleges and universities in Fiscal Year 2008. The program provides grant assistance to undergraduate, Wisconsin residents enrolled at least half time in degree or certificate programs at non-profit, independent colleges or universities based in Wisconsin. Awards are based on financial need and partially based on that portion of tuition in excess of University of Wisconsin-Madison tuition. The maximum award amount is established annually by HEAB. The minimum may not be less than $250. Eligibility cannot exceed 10 semesters.

Talent Incentive Program Grant provided $5.6 million to 4,521 students attending the University of Wisconsin system, Wisconsin Technical Colleges, independent colleges and universities and tribal college in Fiscal Year 2008. The program provides grant assistance to the most financially needy and educationally disadvantaged Wisconsin resident students attending colleges and universities in the state of Wisconsin. First-time freshmen students are nominated for the Grant by the school financial aid offices or by counselors of the Wisconsin Educational Opportunity Programs. An eligible initial recipient must meet at least one of the financial need criteria and at least one of the non-traditional, educationally-disadvantaged criteria.

Criteria include:

1. A dependent student whose expected parent contribution is $200 or less.
2. An independent student whose academic year contribution is $200 or less.
3. TANF or W2 Benefits
    a. A dependent student whose family is receiving TANF or W2 benefits.
    b. An independent student who is receiving TANF or W2 benefits.
4. Unemployment
5. A dependent student whose parent(s) are ineligible for unemployment compensation and has/have no current income from employment.
    a. An independent student (and spouse, if married) who is/are ineligible for unemployment compensation and has/have no current income from employment.

6. The student is:
    a. African-American;
    b. Hispanic, defined as a person of any race whose ancestors originated in Mexico, Puerto Rico, Cuba, Central America or South America or whose culture or origin is Spanish;
    c. Southeast Asian, defined as a person who is admitted to the United States after December 31, 1975, and who either is a former citizen of Laos, Vietnam or Cambodia or whose ancestor was or is a citizen of Laos, Vietnam or Cambodia (this definition includes Hmong); or
    d. Native American.
7. The student is or will be enrolled in a special academic support program due to insufficient academic preparation.
8. The student is a first-generation postsecondary student (neither parent graduated from a four-year college or university).
9. The student is handicapped.
10. The student is currently or was formerly incarcerated in a correctional institution.
11. The student's environmental or academic background is such that it deters the pursuit of educational plans.

To continue to receive the TIP Grant, students must be enrolled consecutive terms and continue to show financial need. Eligibility cannot exceed 10 semesters. Funding for the TIP Grant is provided by both the state of Wisconsin and the federal government.

Indian Student Assistance Grant awarded $764,000 to 847 recipients in Fiscal Year 2008. Awards under this program are made to Wisconsin residents who are at least 25 percent Native American and are undergraduate or graduate students enrolled in degree or certificate programs at University of Wisconsin, Wisconsin Technical College, independent colleges and universities, tribal colleges or proprietary institutions based in Wisconsin. Awards are based on financial need with a limit of 10 semesters of eligibility. HEAB has an informal matching arrangement with grant funds awarded by the Federal Bureau of Indian Affairs and Wisconsin Tribal governments.

Minority Undergraduate Retention Grant awarded $752,000 to 792 students attending Wisconsin technical colleges, independent colleges and universities and tribal colleges in Fiscal Year 2008. Awards under this program are made to Wisconsin resident minority undergraduates, excluding first-year students, enrolled at least half time. According to the statutes, a minority student is defined as a student who is either an African American; American Indian; Hispanic; or Southeast Asian from Laos, Cambodia, or Vietnam admitted to the U.S. after December 31, 1975. Awards are based on financial need with a maximum grant of $2,500 per year for up to eight semesters or 12 quarters.

Academic Excellence Scholarships awarded $3.2 million to 2,923 students attending the University of Wisconsin, technical colleges and independent colleges and universities in Fiscal Year 2008 awarded to Wisconsin high school seniors who have the highest grade point average in each public and private high school throughout the state of Wisconsin. The number of scholarships each high school is eligible for is based on total student enrollment. In order to receive a scholarship, a student must be enrolled on a full-time basis by September 30 of the year following the academic year in which he or she was designated as a scholar. The value of the scholarship is $2,250 per year, to be applied towards tuition. Half of the scholarship is funded by the state, while the other half is matched by the institution.

High School Enrollment	No. of Scholarships
1-79	Compete statewide for 10 scholarships
80-499	1
500-999	2
1,000-1,499	3
1,500-1,999	4
2,000-2,499	5
Over 2,500	6

Spending Constraint Mechanisms

State grant programs across the country use varying methods to control and constrain spending. In addition to the spending constraint levers inherent in the state grant formulas, eligibility criteria, budgeting limitations and deadlines can also be used to constrain spending. Some common eligibility criteria include:

- State residency
- Full-time only (Most states define a full-time student for purposes of their state grant as a student who registers for 12 credits per semester. Minnesota defines full-time as 15 credits. Forty-five states have at least one state financial aid program that allows part-time student to receive an award. Some of these programs are separate grant programs).
- Only recent high school graduates
- Only students at certain institutions
- Maximum on the cost of the budget considered

Deadlines

Deadlines vary widely for applying for State Grants. Minnesota's State Grant deadline is 30 days after the beginning of each term; typically the end of September for a fall semester start. Minnesota has one of the more generous deadlines. Following is a list of the financial aid application deadlines used in 2007-08, shown in relationship to the first day families can complete the FAFSA. The FAFSA was available for submission beginning January 1, 2007 for the 2007-08 academic year.

February 15 (45 days from Jan. 1) CT

March 1 (60 days from Jan. 1) ID, IN, MD, MI, MT, RI, TN, WV, CA

March 15 (75 days from Jan. 1) DE, KY, NC, ND

March 30 (90 days from Jan. 1) OK, AK, KS, MO

May 1 (120 days from Jan. 1) MA, ME, NH, PA, FL

June 1 (150 days from Jan. 1) NJ, DC, SC, IA, AR, LA

August/September (200+ Days from Jan. 1) IL, MS, **MN** (MN deadline is 30 days from start of term)

October 1 or later OH, AZ

In the following states the deadline is set by the college
AL, AS, CO, FM, GA, GU, HI, MH, MP, NE, NM, NV, OR, PW, SD, TX, UT, VA, VT, WA, WI, WY

Findings

- Unlike most states, Minnesota tries to assign all the costs of college up to the full recognized price of attendance. Getting the price right is important.

- Not funding the full cost of education leaves the remaining cost implicitly up to the student and the family to fund

- Not considering the living cost implicitly leaves that expense up to the student and family.

- Many states don't fully fund their state grant program. They are content to simply run out of funds which make the program unpredictable and thus unreliable for students and families.

- Minnesota had a generous application deadline compared to other states.

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Federal Tax Credits and the Federal Tuition and Fee Deduction

Minnesota State Grant Review

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Dr. Gerald Setter died unexpectedly in 2008 after completing most of the in-depth analysis reflected in this report. The Office of Higher Education is grateful for his thoughtful insight, hard work and nearly 30-year commitment to public service.

Introduction

The Minnesota State Grant framework assigns the Recognized Price of Attendance to three parties: the student, the families and, if necessary, the taxpayers. The Assigned Taxpayer Responsibilities are the portion of the Recognized Price of Attendance not covered by the student or the family. Coverage of Assigned Taxpayer Responsibilities is provided by federal Pell Grants and, if necessary, Minnesota State Grants.

An estimated $5.9 billion in federal Hope and Lifetime Learning tax credits and in tuition and fee deductions was claimed by taxpayers on their federal individual tax returns in Fiscal Year 2007. This compares with an estimated $12.9 billion in federal Pell Grants awarded nationally and in Fiscal Year 2007.[1] Both the federal tax code and direct spending on grants assist students and families in paying for postsecondary education. This paper briefly describes the federal Hope and Lifetime Learning tax credits and the tuition and fee deduction. Their relationship to the assignments of Recognized Prices in the Design for Shared Responsibility and resulting price distributions are presented.

The federal Hope and Lifetime Learning tax credits and the tuition and fee deduction have three important characteristics that differ from traditional financial aid policies and practices:

- Reimbursed after out-of-pocket expenses
- Administered outside the provisions of Higher Education Act of 1965, as amended
- Expanded the income range of recipients

The federal Hope and Lifetime Learning tax credits and the tuition and fee deduction reduce individual and family federal tax liabilities. By reducing federal tax liabilities, the federal government effectively reimburses students and/or their parents for out-of-pocket postsecondary education expenses. These reimbursements occur when taxes are filed, after students and families have financed the out-of-pocket expenses associated with attending. Unlike reimbursed tax benefits, Minnesota State Grants and federal Pell Grants are paid when students begin attending.

The federal Hope and Lifetime Learning tax credits and the tuition and fee deduction are included in the Internal Revenue Code as determined by the tax committees of Congress and approved by the President. The Higher Education Act of 1965, as amended, defines a number of federal financial aid programs and policies and is the product of the education committees of Congress as approved by the President. The Higher Education Act of 1965, as amended, also defines the Federal Need Analysis in determining what students and families are expected to pay for postsecondary education. The Act also prescribes coordination among federal, state and other student financial aid awards. The federal postsecondary education tax benefits and the programs of the Higher Education Act of 1965, as amended, are not coordinated, although all provide financial assistance to eligible students and families.

[1] College Board (2007) p. 7.

The federal Hope and Lifetime Learning tax credits and the tuition and fee deduction expand the income range for federal postsecondary education benefits beyond the income range covered by federal programs incorporated in the Higher Education Act of 1965, as amended. Whereas the Higher Education Act of 1965, as amended, generally directs program benefits to low-to-moderate-income families, the federal Hope and Lifetime Learning tax credits and the tuition and fee tax deduction provide benefits to eligible families further up the income scale.

Federal Tax Credits

Federal Hope and Lifetime Learning tax credits were created by the Tax Relief Act of 1997 and first available to federal individual income tax filers in 1998. Today, these tax credits reduce the tax burdens on families with the largest financial efforts assigned to them by the Federal Need Analysis.[2]

The Clinton administration recommended the federal government pay for the first two years of community college tuition and fees in the "Middle Class Bill of Rights" in December 1994. Subsequently, the idea acquired the name federal Hope Scholarship tax credit, piggybacking on the state of Georgia's Helping Outstanding Pupils Educationally (HOPE) grants.

Federal Lifetime Learning tax credits followed a policy and political path different from federal Hope tax credits. They were the result of continuing political efforts to make tuition payments an allowable federal individual income tax deduction. As such, the differences between the two federal tax credits are as much the result of their genesis as explicit policy decisions.

The Hope and Lifetime Learning tax credits are computed based on qualifying expenses defined as out-of-pocket or net tuition and applicable fees paid by the filers and students. The credit must be claimed by the filer who claims the student as an exemption for federal income tax purposes.[3] The student and filer can be the same person. The credit must be claimed for the same year a qualifying expense was incurred (tuition and fees can be prepaid for terms that begins in the first three months of the subsequent tax year). The credit cannot be carried forward or backward.

To qualify for a federal Hope tax credit, students must attend at least half time for at least one term during the tax year. The tax rules indicate a term ought to look like a semester or quarter although the rules do not provide a tight definition. A weekend seminar would not be a term, for example. No such restriction on registration loads or term length applies to federal Lifetime Learning tax credits.

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[2] See the following two papers, *Overview of the Design for Shared Responsibilities* and *More on Assigned Family Responsibilities: Dependent Students*.

[3] In this paper, the term "filer" refers to the entity filing a federal personal income tax return. A joint return represents one filer. While the reports presented in the various news and information outlets seem to assume that Mom, Dad and Junior are one happy, smoothly functioning economic unit, the interesting aspects of this and most other provisions of the Tax Relief Act of 1997 become more "clear" if you think of Mom, Dad and Junior as potentially separate filers, all adults and without the benefit of marital or other contractual arrangements among them.

Federal Hope tax credits apply to payments for courses leading to a degree, diploma or certificate. Federal Lifetime Learning tax credits also apply to payments for courses leading to a degree, diploma or certificate, but may also apply to payments for courses taken by the student to acquire or improve job skills.

In tax year 2006, federal Hope tax credits equaled 100 percent of the first $1,100 of qualifying tuition and applicable fees and 50 percent of the second $1,100 of qualifying tuition and fees. Federal Hope tax credits can be claimed for each eligible student; one filer can claim multiple federal Hope tax credits. The maximum federal Hope tax credit per year in tax year 2006 was $1,650 per student.

In tax year 2006, federal Lifetime Learning tax credits equaled 20 percent of the first $10,000 of qualifying tuition and fees. The maximum federal Lifetime Learning tax credit per year equaled $2,000 per filer. The limit applied to each return and included all individuals counted as exemptions on the filer's return. The 2006 tax year tax credit and deduction parameters were used in the analysis in this paper.

Not all tax filers with postsecondary education expenses qualify for federal tax credits. The following students (and their families) would not have qualified in tax year 2006 for federal Hope or Lifetime Learning tax credits.

- Filers not owing any federal income taxes, the credits are non-refundable and cannot exceed tax liabilities
- Married filers, filing jointly, with more than $110,000 adjusted gross income
- Unmarried filers earning more than $55,000
- Married filers, filing separately
- Students' receiving more in price discounts (examples, grants and scholarships) than they were charged in tuition and applicable fees

Tax filers qualifying for the maximum federal tax credits in tax year 2006 were as follows.

- Students in the first two years of their college careers with $2,200 or more in net tuition and applicable fees and whose family (eligible filer) had federal tax liabilities of $1,650 or more
- Families (filer and students) who paid $10,000 or more in net tuition and applicable fees and whose family (eligible filer) had federal tax liabilities of $2,000 or more

Other students (and their families) would be eligible for partial federal Hope or Lifetime Learning tax credits.

The “first two years” provision in the federal Hope tax credit has two conditions. First, the eligible educational institution where the student enrolled must not have awarded the student two years of academic credit for postsecondary course work completed by the student prior to the beginning of the taxable year. Any academic credit awarded by the educational institution solely on the basis of the student’s performance on proficiency examinations could not be taken into account.

Second, filers must not have claimed a federal Hope tax credits for the qualifying student in any two earlier tax years. While the “official” explanation describes federal Lifetime Learning tax credits for “juniors, seniors and graduate students,” in reality, students spending three years as freshmen could claim federal Hope tax credits for only two years, and thus, could claim federal Lifetime Learning tax credits as freshmen in the third year. Since tax years and academic years do not correspond, most students progressing on a “four-year bachelor’s degree plan” may spread their first two academic years over three tax years such that some families of sophomores would no longer be able to claim federal Hope tax credits, but could be eligible for federal Lifetime Learning tax credits.

Federal Hope Tax Credit Impact on Students and Families

The analysis reported in this section assumed the tax credits applied to the same period as the federal Pell and Minnesota State Grants, even though federal tax years and Minnesota fiscal years are different. The calculation of Minnesota State Grants begins with Recognized Prices. The sums of the average Recognized Tuition and Fees and the standard Living and Miscellaneous Expense allowance are shown in the following table for Fiscal Year 2007. The mean Recognized Tuition and Fees, for each institutional grouping, was based on values used for calculating Minnesota State Grants weighted by the number of applicants.

Institutional Grouping	Mean Recognized Tuition and Fees	Living and Miscellaneous Expense Allowance	Mean Recognized Price of Attendance
MnSCU 2-year Colleges	$4,252	$6,065	$10,317
MnSCU 4-year Universities	$5,955	$6,065	$12,020
University of Minnesota	$9,397	$6,065	$15,462
Minnesota Private 2-year Institutions	$6,349	$6,065	$12,414
Minnesota Private 4-year Institutions	$8,547	$6,065	$14,612

The next step in this analysis partitioned Recognized Prices into Assigned Student Responsibilities and Family-Taxpayer Shares as shown in the next table.

Institutional Grouping	Mean Recognized Price of Attendance	Assigned Student Responsibility	Family-Taxpayer Share
MnSCU 2-year Colleges	$10,317	$4,746	$5,571
MnSCU 4-year Universities	$12,020	$5,529	$6,491
University of Minnesota	$15,462	$7,113	$8,350
Minnesota Private 2-year Institutions	$12,414	$5,711	$6,704
Minnesota Private 4-year Institutions	$14,612	$6,722	$7,891

Dependent Students

Consistent with standard State Grant program distributional analyses, federal Hope tax credits were calculated across the income spectrum at $5,000 increments, from $0 to $100,000 federal adjusted gross income. The federal Hope tax credit was calculated for a household size of four, one member attending a postsecondary institution and two employed parents filing jointly using the standard deduction. It was also assumed no family was subject to the Alternative Minimum Tax.

The typical Hope tax credit was calculated using the mean Recognized Tuition and Fees presented above. It was further assumed the only discounts received by the student were the federal Pell and Minnesota State Grants, if the student qualified. The tax filer's out-of-pocket tuition and fees were set at tuition and fees minus the two grant amounts, if any.

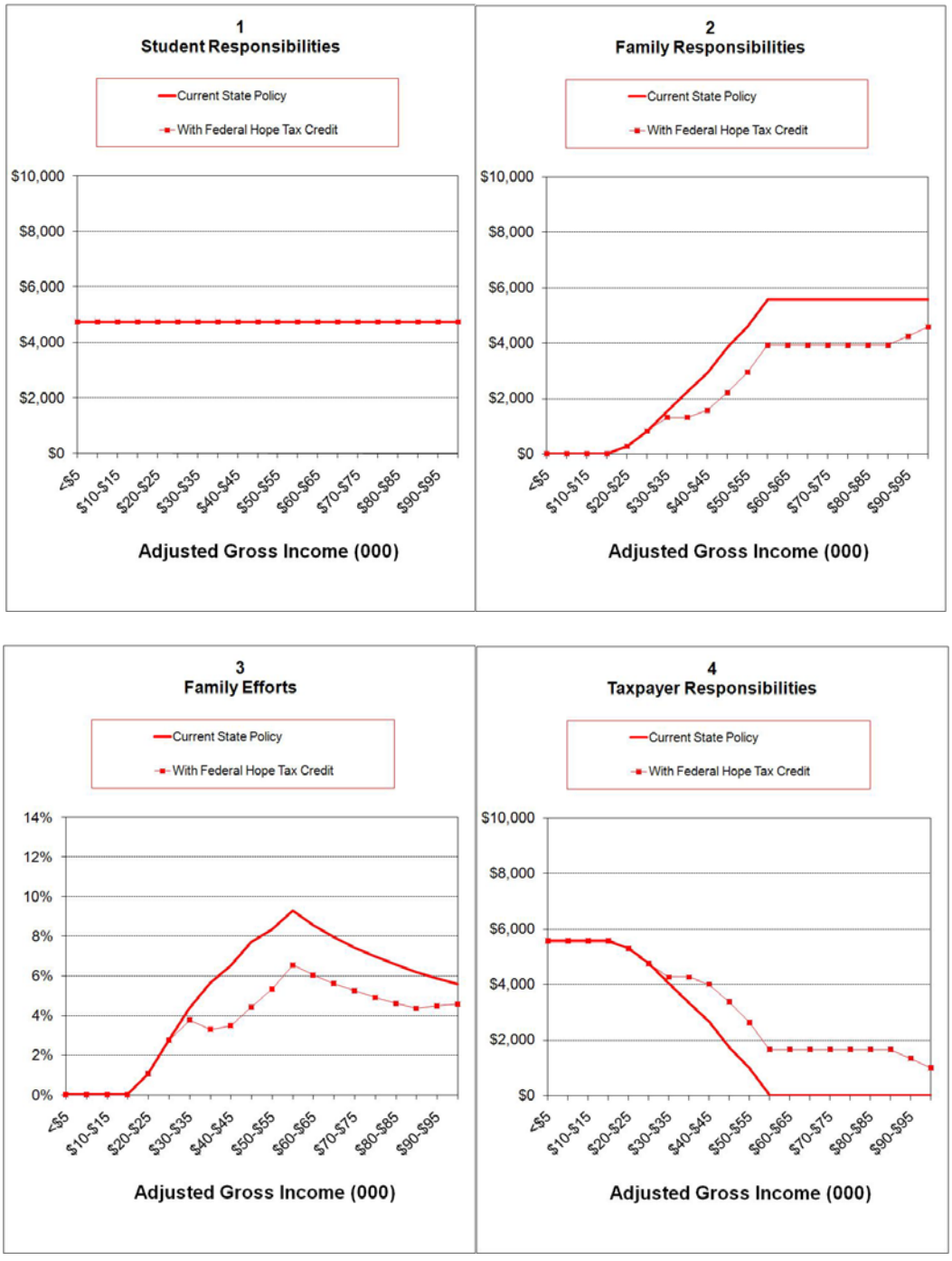
Federal Hope tax credits were used to reduce the Recognized Prices assigned to families, the Assigned Family Responsibilities, in the analysis presented in this section. If the credit exceeded the Assigned Family Responsibilities, the excess was used to reduce the assignment to students. In no cases did the federal Hope tax credit result in a reduction in the Assigned Student Responsibilities.

Two price points were used in this analysis to describe the impact of federal Hope tax credits on payment assignments. The lower price was $10,317, the Recognized Price at MnSCU two-year institutions in 2006-2007. The higher price was $15,462, the Recognized Price at the University of Minnesota Twin-Cities in 2006-2007. These two points were used to check the sensitivity of the Hope tax credit to price.

Dependent Students / Low Price Example / Federal Hope Tax Credit

At the lower price ($10,317), federal Hope tax credit increased taxpayer investment for typical dependent students from families reporting adjusted gross incomes of $35,000 or more, up to the tax credit cutoff of $110,000, as shown on Panel 4 of the next page. Assigned Taxpayer Responsibilities, as defined in the Design for Shared Responsibility, are shown as a solid line, with the sum of Assigned Taxpayer Responsibilities and the calculated federal Hope tax credits shown as a dashed line.

Federal Hope Tax Credits, Dependent Student with Recognized Price = $10,317



Families earning less than $20,000 typically do not qualify for federal tax credits. In this analysis, typical students from families earning less than $30,000 received more in federal Pell and Minnesota State Grants than qualifying tuition and fees and, therefore, had no out-of-pocket expenses as defined by the Internal Revenue Code. They did not qualify for a Hope tax credit. Panel 4 shows federal Hope tax credits for families from about $60,000 to $110,000 adjusted gross incomes, families who typically do not qualify for federal or state grants.

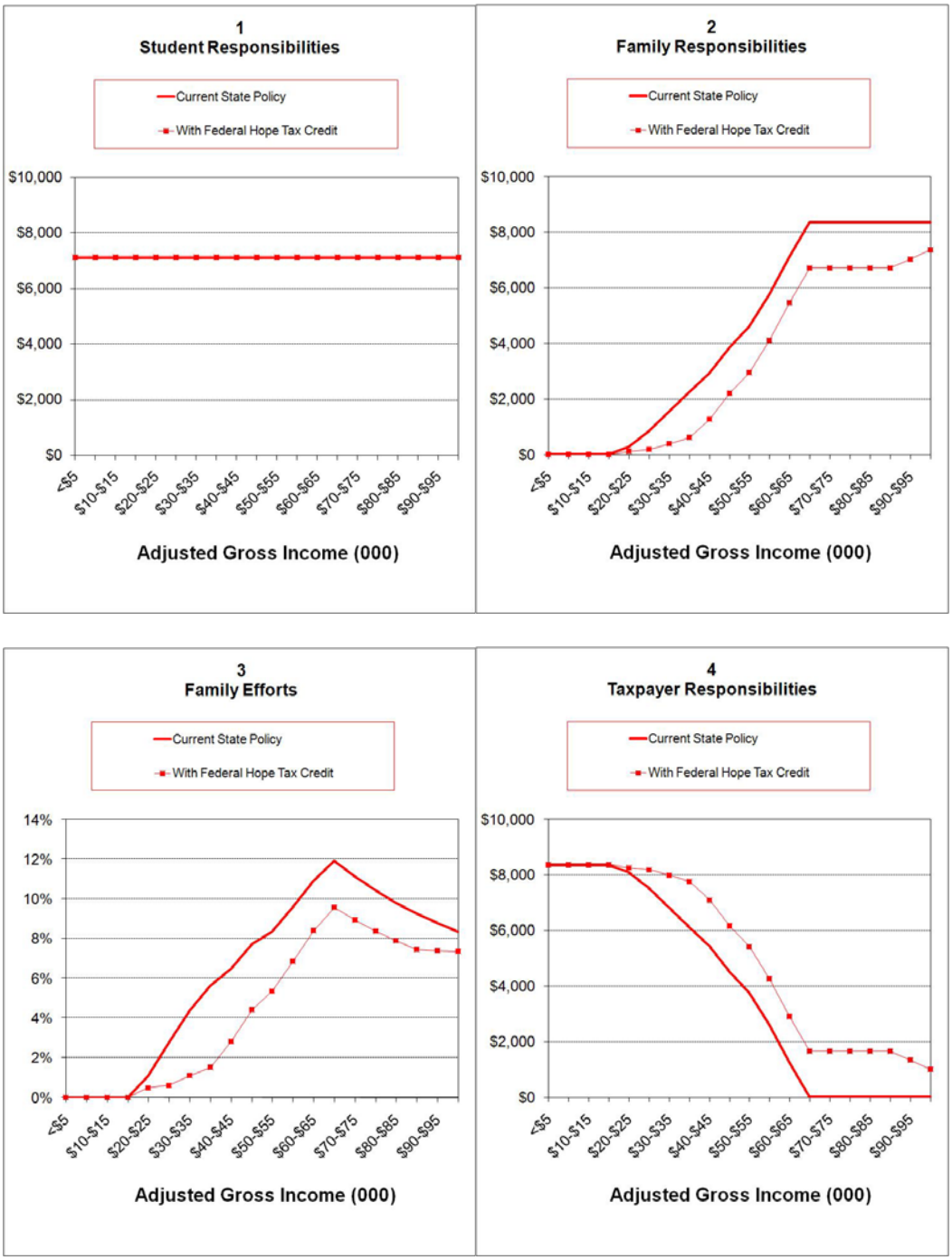
Increasing taxpayer investments through federal Hope tax credits effectively reduced the amount assigned to families (parents, in this case), as shown in Panel 2. The lowering of assignments to families reduced the peak Assigned Family Efforts, as shown in Panel 3, from nine to six percent of adjusted gross income. This is equivalent to lowering the individual income tax rate by almost three percentage points.

Dependent Student / Higher Price Example / Federal Hope Tax Credits

At the higher price ($15,462), federal Hope tax credits increased taxpayer investment for typical dependent students for families reporting adjusted gross incomes from about $20,000 up to the tax credit cutoff of $110,000, as shown on Panel 4 of the next chart. Families earning less than about $20,000 typically do not have a federal tax liability and do not qualify for postsecondary education tax credits. Unlike the low price example, students from families with incomes in the $20,000 to $30,000 range would have been eligible for federal Hope tax credits because the combination of federal Pell and Minnesota State Grants was less than the qualifying tuition and fees.

Federal Hope tax credits shifted the portion of the income distribution receiving taxpayers' investment to the right from about $60,000 adjusted gross income to $110,000, as shown in Panel 4.

Federal Hope Tax Credits, Typical Dependent Student with Recognized Price = $15,462



Increasing taxpayer investments through federal Hope tax credits effectively reduced the amount assigned to families (parents, in this case), as shown in Panel 2. The lowering of assignments to families reduced the peak Assigned Family Effort, as shown in Panel 3, from 12 to nine percent of adjusted gross income. This is equivalent to lowering the individual income tax rate by three percentage points.

Unmarried Independent Students with No Dependents

Consistent with standard State Grant Program distributional analyses, 20 federal Hope tax credits were calculated along the income spectrum at $5,000 increments, from $0 to $100,000 adjusted gross income. The Hope tax credit was calculated for a household size of one using the standard deduction. To calculate a typical Hope tax credit, a tax liability for a typical student in each of the 20 groups was calculated based on a household of one using the standard deduction. It was also assumed no tax filer would be subject to the Alternative Minimum Tax.

The typical Hope tax credit was calculated using the mean Recognized Tuition and Fees presented above. It was further assumed the only discounts received by the student were the federal Pell Grant and the Minnesota State Grant, if the student qualified. The tax filers' out-of-pocket tuition and fees were set at tuition and fees minus the two grant amounts, if any.

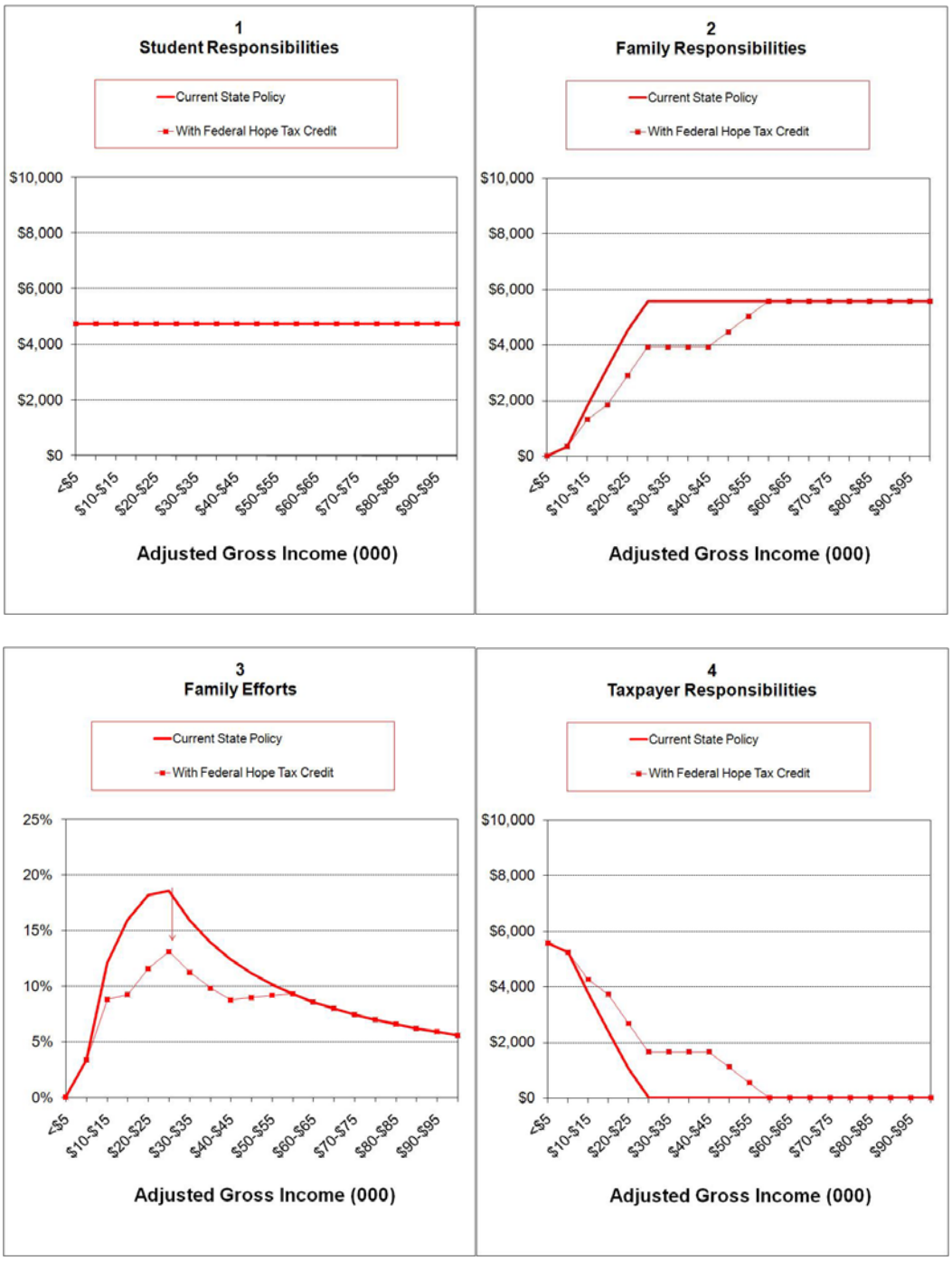
The federal Hope tax credit was used to reduce the Recognized Prices assigned to families, the Assigned Family Responsibilities, in the analysis presented in this section. If the credit exceeded the Assigned Family Responsibilities, the excess was used to reduce the Assigned Student Responsibilities. In no case did the Federal Hope tax credit result in a reduction in the Assigned Student Responsibilities.

Independent Student / Low Price Example / Federal Hope Tax Credit

At the lower price ($10,317), federal Hope tax credits increased taxpayer investment for typical unmarried independent students with no dependents reporting adjusted gross incomes of $10,000 or more up to the tax credit cutoff of $55,000, as shown on Panel 4 of the next chart. Assigned Taxpayer Responsibilities, as defined in the Design for Shared Responsibility, are shown as a solid line, with the sum of Assigned Taxpayer Responsibilities and the calculated Federal Hope tax credits shown as a dashed line.

Individual filers earning less than about $5,000 typically do not have a federal tax liability and do not qualify for federal tax credits, so the two lines in Panel 4 are the same. In this analysis, typical students earning less than $10,000 received more in federal Pell and Minnesota State Grants than the qualifying tuition and fees and, therefore, had no out-of-pocket expenses as defined by the Internal Revenue Code. They did not qualify for a Hope tax credit. Federal Pell Grants and/or Minnesota State Grants accounted for nearly all Assigned Taxpayer Responsibilities up to about $15,000 adjusted gross income. The dashed line in Panel 4 shows federal Hope tax credits from about $30,000 to $55,000 adjusted gross income.

Federal Hope Tax Credit, Typical Unmarried Independent Student with Recognized Price = 10,317.



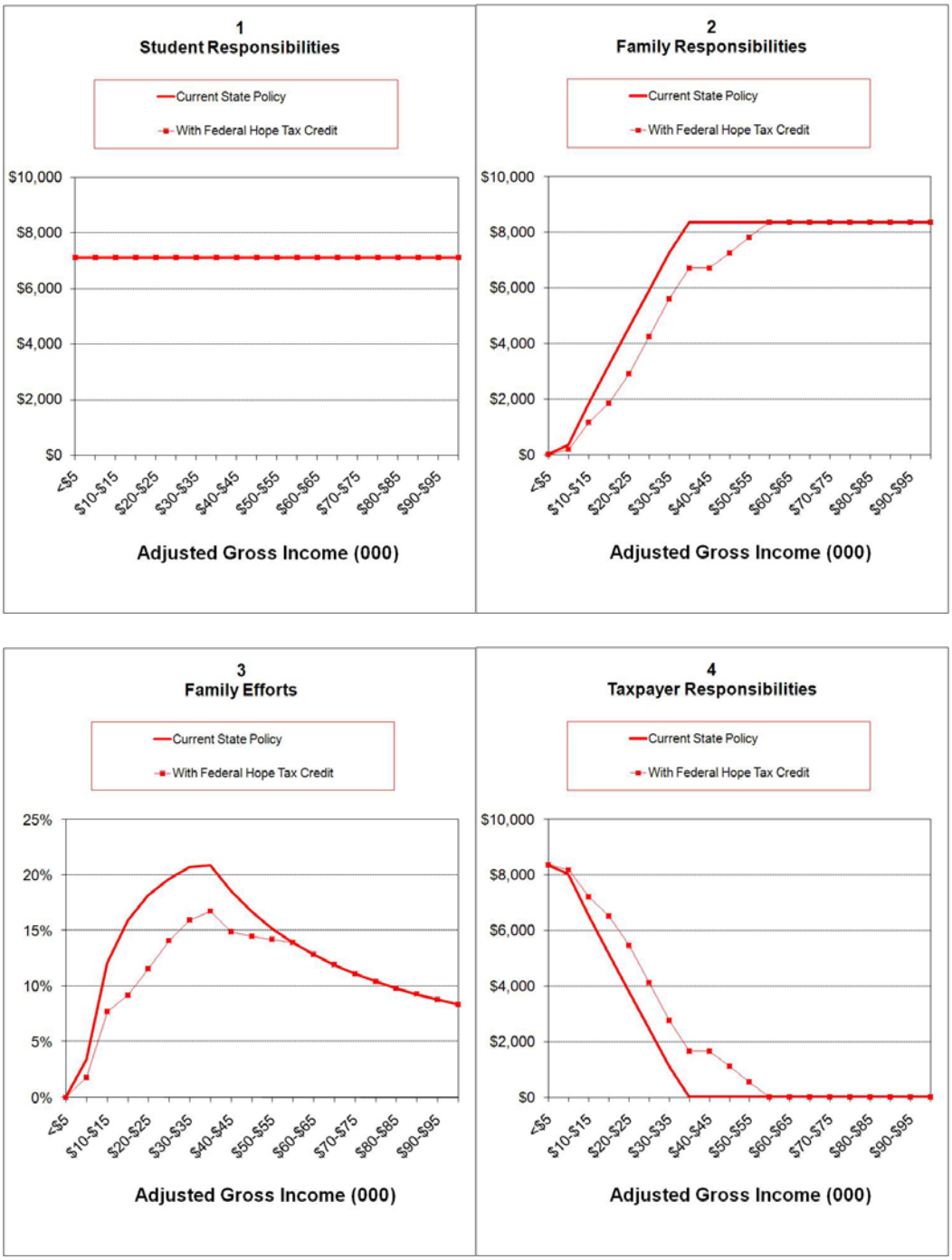
Increasing taxpayer investments through federal Hope tax credits effectively reduced the amount assigned to families (students in this case), as shown in Panel 2. The lowering of assignments to families reduced the peak Assigned Family Effort, as shown in Panel 3, from 18 to 12 percent of adjusted gross income. This is equivalent to lowering the individual income tax rate by six percentage points.

Independent Student / High Price Example / Federal Hope Tax Credit

At the higher price level ($15,462), federal Hope tax credits increased taxpayer investment for typical independent unmarried students with no dependents reporting adjusted gross incomes of $5,000 or more up to the tax credit cutoff of $55,000, as shown on Panel 4 of the next chart. Assigned Taxpayer Responsibilities, as defined in the Design for Shared Responsibility, are shown as a solid line, with the sum of Assigned Taxpayer Responsibilities and the calculated federal Hope tax credits shown as a line.

Individuals earning less than about $5,000 typically do not have a federal tax liability and do not qualify for the Hope tax credit, so the two lines in Panel 4 are the same. Federal Hope tax credits shifted the portion of the income distribution receiving taxpayers' investment to the right from about $40,000 to $55,000 adjusted gross income.

Federal Hope Tax Credit, Typical Unmarried Independent Student with Recognized Price = $15,462



Increasing taxpayer investments through federal Hope tax credits effectively reduced the amount assigned to families (students, in this case), as shown in Panel 2. The lowering of assignments to families reduced the peak Assigned Family Effort, as shown in Panel 3, from 21 to 16 percent of adjusted gross income. This is equivalent to lowering the individual income tax rate by five percentage points.

Federal Lifetime Learning Tax Credits Impact on Students and Families

This section examines the impact of federal Lifetime Learning tax credits on the distribution of payment responsibilities following a format parallel to the analysis of the impact of federal Hope tax credits. One important difference between the two tax credits is the treatment of out-of-pocket expenses as defined by the Internal Revenue Code. Federal Hope tax credits recognize 100 percent of the first $1,000 of out-of-pocket while federal Lifetime Learning tax credits recognize only 20 percent.

Dependent Students

Consistent with standard State Grant Program distributional analyses, 20 federal Lifetime Learning tax credits were calculated along the income spectrum at $5,000 increments, from $0 to $100,000 adjusted gross income. Federal Lifetime Learning tax credits were calculated for household size of four, one member attending a postsecondary institution and two employed parents filing jointly using the standard deduction. It was also assumed no family would be subject to the Alternative Minimum Tax.

The typical credit was calculated using the mean Recognized Tuition and Fees presented above. It was further assumed the only discounts received by the student were the federal Pell Grants and Minnesota State Grants, if the student qualified. The tax filer's out-of-pocket tuition and fees were set at tuition and fees minus the two grant amounts, if any.

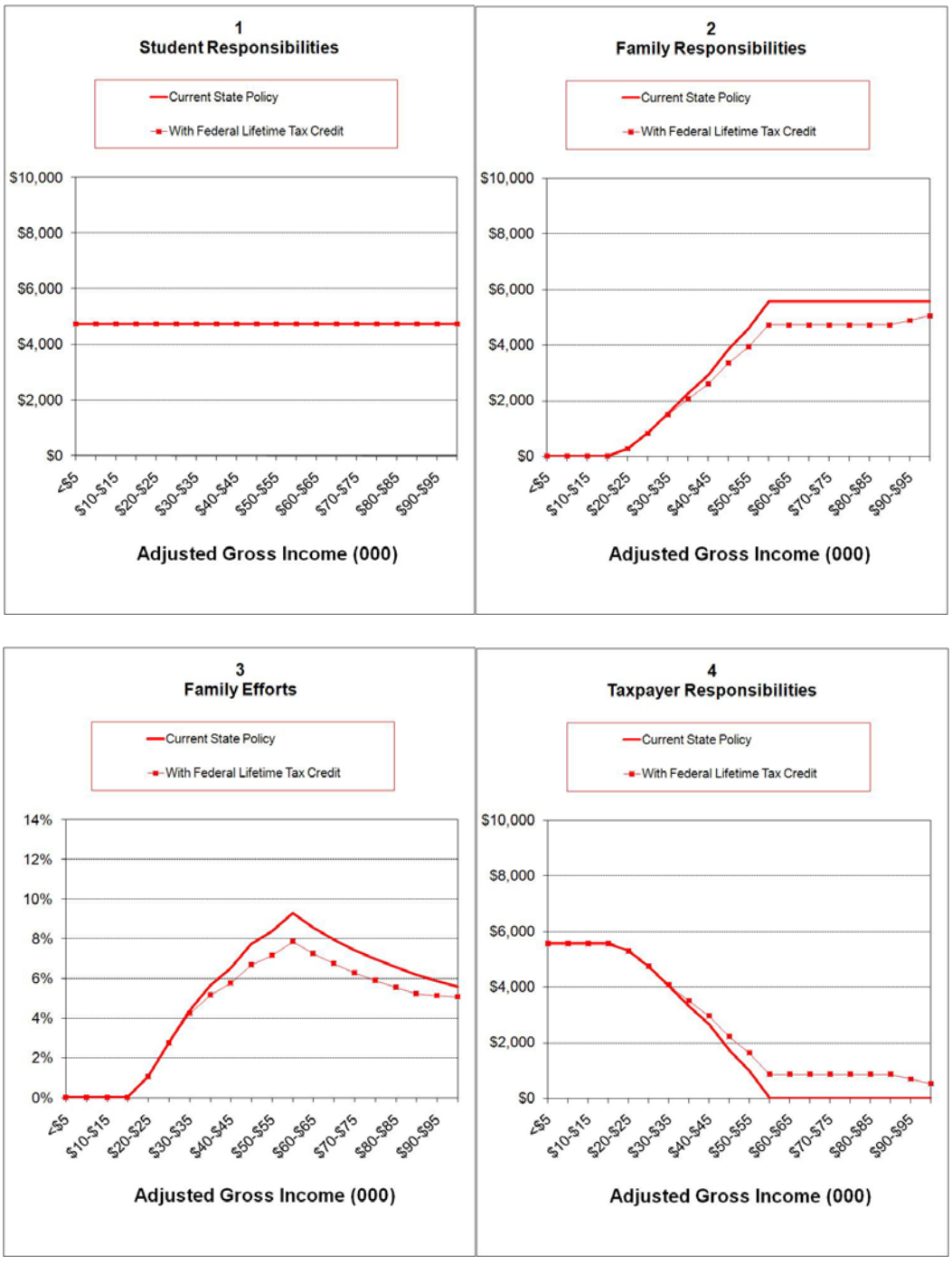
The federal Lifetime Learning tax credit was used to reduce the Recognized Price assigned to families, Assigned Family Responsibility, in the analysis presented in this section. If the credit exceeded the Assigned Family Responsibility, the excess was used to reduce the assignment to students, Assigned Student Responsibility. In no cases did the federal Lifetime Learning tax credit result in a reduction in the Assigned Student Responsibilities.

As above, two price points were used to describe the impact of federal Lifetime Learning tax credits on payment assignments. A low price of $10,317 and a higher price of $15,462 were used. These two points were used to check the sensitivity of the credits to price.

Dependent Students / Low Price Example / Lifetime Learning Tax Credit

At the lower price ($10,317), federal Lifetime Learning tax credits increase taxpayer investment for typical dependent students from families reporting adjusted gross incomes of $35,000 or more up to the tax credit cutoff of $110,000, as shown on Panel 4 of the next chart. Assigned Taxpayer Responsibilities, as defined in the Design for Shared Responsibility, are shown as a solid line with the sum of Assigned Taxpayer Responsibilities and the calculated Federal Lifetime Learning tax credits shown as a dashed line.

Federal Lifetime Learning Tax Credits, Typical Dependent Student with Recognized Price = $10,312



Increasing taxpayer investments through federal Lifetime Learning tax credits effectively reduced the amount assigned to families (parents, in this case), as shown in Panel 2. The lowering of assignments to families reduced the peak Assigned Family Effort, as shown in Panel 3, from nine to seven percent of adjusted gross income. This is equivalent to lowering the individual income tax rate by two percentage points.

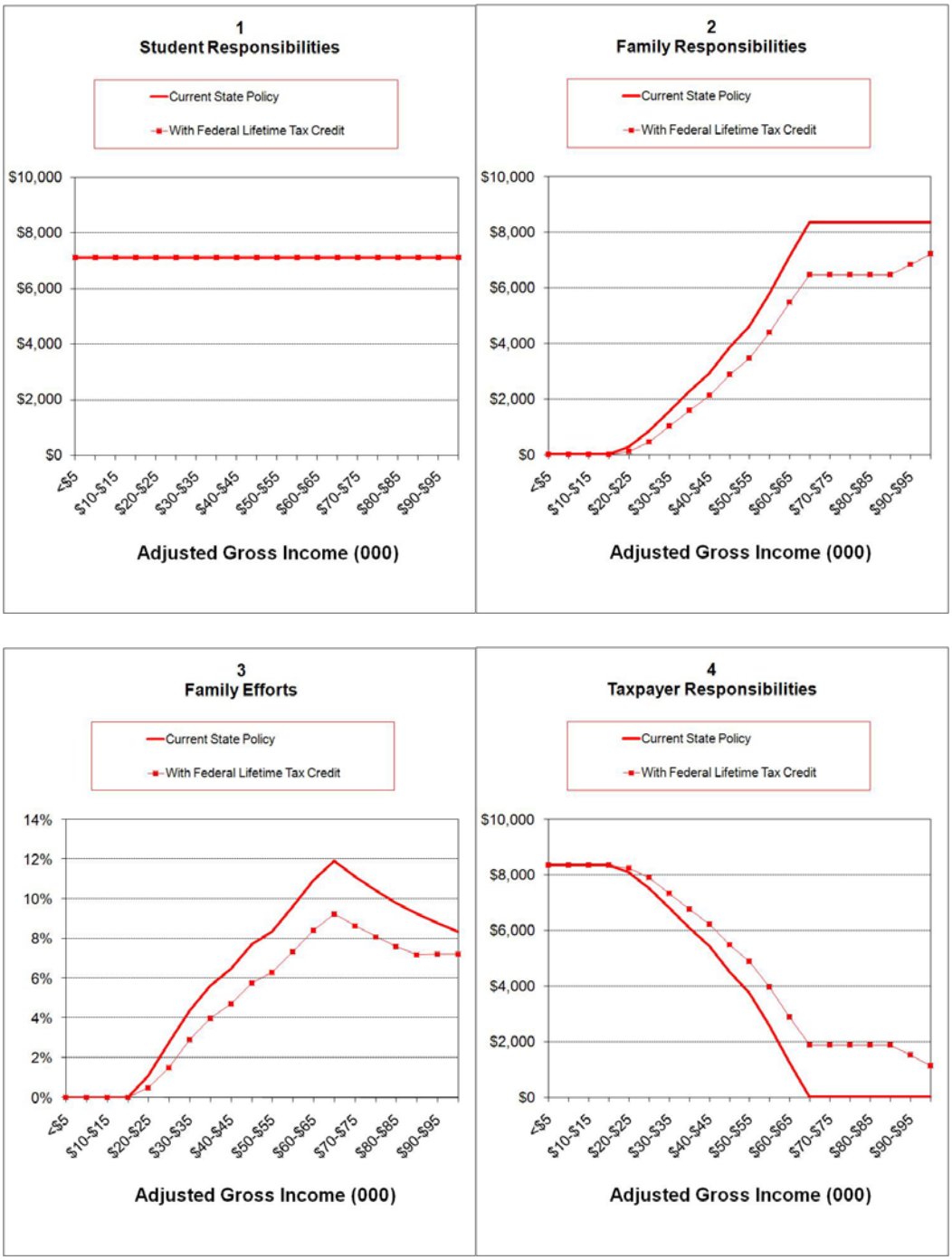
Families earning less than about $20,000 typically do not have a federal tax liability and do not qualify for federal tax credits, so the two lines in Panel 4 up to $20,000 are the same. In this analysis, typical students from families earning less than $35,000 received more in federal Pell and Minnesota State Grants than the qualifying tuition and fees and, therefore, had no out-of-pocket expenses as defined by the Internal Revenue Code. They did not qualify for a federal Lifetime Learning tax credit. Federal Lifetime Learning tax credits shifted the portion of the income distribution receiving taxpayer investment to the right from about $65,000 to $110,000 adjusted gross income, as shown on Panel 4.

Dependent Students / Higher Price Example / Lifetime Learning Tax Credit

At the higher price (of $15,462), federal Lifetime Learning tax credits increased taxpayer investment for typical dependent students from families reporting adjusted gross incomes from $20,000 up to the tax credit cutoff of $110,000, as shown on Panel 4 of the next page. Assigned Taxpayer Responsibilities, as defined in the Design for Shared Responsibility, are shown as a solid line, with the sum of Assigned Taxpayer Responsibilities and the calculated federal Lifetime Learning tax credits shown as a dashed line.

Families earning less than about $20,000 typically do not have a federal tax liability and do not qualify for federal tax credits, so the two lines in Panel 4 are the same up to $20,000. In this analysis, typical students from families earning less than $20,000 received more in federal Pell and Minnesota State Grants than the qualifying tuition and fees and, therefore, had no out-of-pocket expenses as defined by the Internal Revenue Code. They did not qualify for a federal Lifetime Learning tax credit. Federal Lifetime Learning tax credits shifted the portion of the income distribution receiving taxpayers' investment up from about $65,000 adjusted gross income to $110,000, as shown in Panel 4.

Federal Lifetime Learning Tax Credits, Typical Dependent Student with Recognized Price = $15,462



Increasing taxpayer investments through federal Lifetime Learning tax credits effectively reduced the amount assigned to families (parents, in this case), as shown in Panel 2. The lowering of assignments to families reduced the peak Assigned Family Effort, as shown in Panel 3, from 12 to nine percent of adjusted gross income. This is equivalent to lowering the individual income tax rate by three percentage points.

Unmarried Independent Students with No Dependents

Consistent with standard State Grant program distributional analyses, federal Lifetime Learning tax credits were calculated along the income spectrum at $5,000 increments, from $0 to $100,000 adjusted gross income. Federal Lifetime Learning tax credits were calculated for household size of one using the standard deduction. It was also assumed no tax filer would be subject to the Alternative Minimum Tax.

The typical credit was calculated using the mean Recognized Tuition and Fees presented above. It was further assumed the only discounts received by the student were Pell and Minnesota State Grants, if the student qualified. The out-of-pocket tuition and fees were set at tuition and fees minus the two grant amounts, if any.

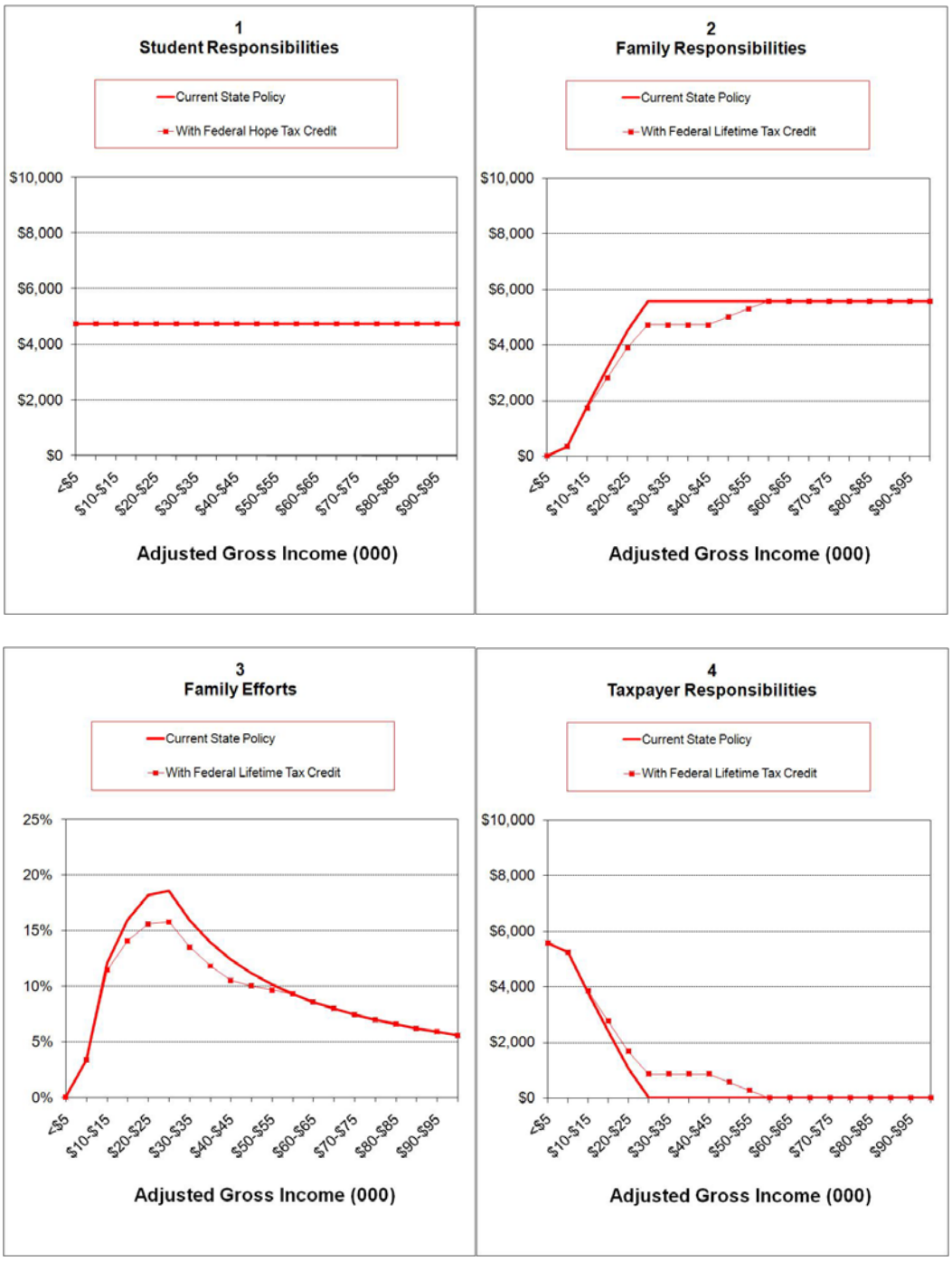
The federal Lifetime Learning tax credit was used to reduce the Recognized Price Assigned to Families, Assigned Family Responsibility, in the analysis presented in this section. If the credit exceeded the Assigned Family Responsibility, the excess was used to reduce the assignment to students, Assigned Student Responsibility. In no cases did the federal Lifetime Learning tax credit result in a reduction in the Assigned Student Responsibilities.

Independent Students / Low Price Example / Lifetime Learning Tax Credit

At the lower price ($10,317), federal Lifetime Learning tax credits increased taxpayer investment for typical unmarried independent students with no dependents reporting adjusted gross incomes of $10,000 or more up to the tax credit cutoff of $55,000, as shown on Panel 4 of the next chart. Assigned Taxpayer Responsibilities, as defined in the Design for Shared Responsibility, are shown as a solid line with the sum of Assigned Taxpayer Responsibilities and the calculated federal Lifetime Learning tax credits shown as a dashed line.

Individuals earning less than about $5,000 typically do not have a federal tax liability and do not qualify for federal tax credits, so the two lines in Panel 4 are the same up to $5,000. In this analysis, typical students earning less than $10,000 received more in federal Pell and Minnesota State Grants than the tuition and fees and, therefore, had no out-of-pocket expenses as defined by the Internal Revenue Code. They did not qualify for federal Lifetime Learning tax credits. Federal Lifetime Learning tax credits shifted the portion of the income distribution receiving taxpayers' investment to the right from about $35,000 adjusted gross income to $55,000.

Federal Lifetime Learning Tax Credits, Unmarried Students with No Dependents with Recognized Price = $10,317



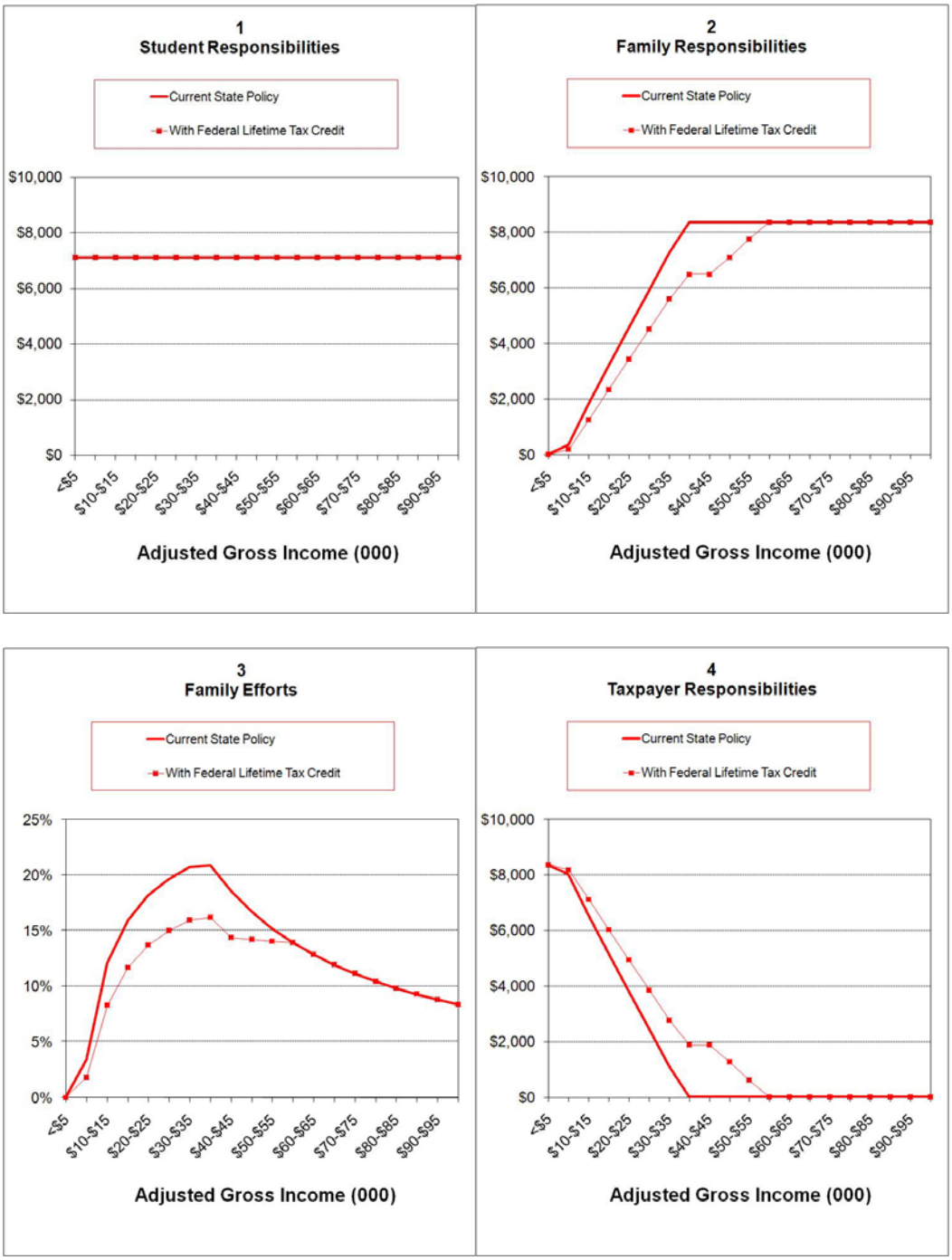
Increasing taxpayer investments through federal Lifetime Learning tax credits effectively reduced the amount assigned to families (often paid by the student in the case of independent students), as shown in Panel 2. The lowering of assignments to families reduces the peak Assigned Family Effort, as shown in Panel 3, from 18 to 16 percent of adjusted gross income. This is equivalent to lowering the individual income tax rate by two percentage points.

Independent Students / Higher Price Example / Lifetime Learning Tax Credit

At the higher price ($15,462), federal Lifetime Learning tax credits increased taxpayer investment for typical unmarried independent students with no dependents reporting adjusted gross incomes of $5,000 or more up to the tax credit cutoff of $55,000, as shown on Panel 4 of the next chart. Assigned Taxpayer Responsibilities, as defined in the Design for Shared Responsibility, are shown as a solid line, with the sum of Assigned Taxpayer Responsibilities and the calculated federal Lifetime Learning tax credits shown as a dashed line.

Individuals earning less than about $5,000 typically do not have a federal tax liability and do not qualify for federal tax credits, so the two lines in Panel 4 are the same. Federal Lifetime Learning tax credits shifted the portion of the income distribution receiving taxpayers' investment to the right from about $40,000 to $55,000 adjusted gross income, as shown on Panel 4.

Federal Lifetime Learning Tax Credits, Unmarried Students with No Dependents with Recognized Price = $15,462



Increasing taxpayer investments through federal Lifetime Learning tax credits effectively reduced the amount assigned to families (the students, in this case), as shown in Panel 2. The lowering of assignments to families reduced the peak Assigned Family Effort, as shown in Panel 3, from 21 to 16 percent of adjusted gross income. This is equivalent to lowering the individual income tax rate by five percentage points.

Federal Tuition and Fee Deduction

Taxpayer investments made through the federal tax code were expanded by the Economic Growth and Tax Relief Reconciliation Act of 2001, HR 1836. HR 1836 included a number of provisions targeted to postsecondary students (and their parents). In this section, only the portion of the Act related to the tuition and fee deduction (Sec 431) was analyzed.[4]

The federal tuition and fee deduction reduces the tax filer's adjusted gross income and subsequently the filer's income tax liability. This is in contrast to the federal Hope and Lifetime Learning tax credits which are subtracted from the filer's income tax liability. The value of the deduction depends on the marginal tax rate of the filer, rather than a percentage of out-of-pocket tuition and fees as with federal Hope and Lifetime Learning tax credits.

The definitions of qualified expenses for the tuition and fee deduction were the same as for the federal Hope tax credit, the out-of-pocket or net tuition and applicable fees paid by the filer and student.[5] For Tax Year 2006, the maximum dollar amount of the deduction per filer was:[6]

- $4,000 for married filers filing jointly with adjusted gross income of $130,000
- $4,000 for unmarried filers with adjusted gross income of $65,000
- $2,000 for married filers filing jointly with adjusted gross income > $130,000 and $160,000
- $2,000 for unmarried filers with adjusted gross income > $65,000 and $80,000
- $0 for any other taxpayer

Any one postsecondary education expenditure can be used to claim only one federal tax benefit. For example, the tax filer must choose between a federal Hope tax credit and the tuition and fee deduction. In addition, the filer cannot deduct qualified education expenses that have been used to figure the tax-free portion of a distribution from a Coverdell education savings account or a qualified tuition program or deduct qualified education expenses that have been paid with tax-free interest on U.S. savings bonds.

Claiming the tuition and fee deduction for purposes of calculating federal income taxes will affect the filer's income base used to calculate Minnesota individual income taxes. The base for Minnesota individual income taxes is the filer's federal taxable income. For families qualifying for the tuition and fee deduction, their federal adjusted gross income is reduced which subsequently reduces their federal taxable income.

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[4] Other direct benefits to students include changes to the following: Employer Provided Tuition Assistance (Section 127), Student Loan Interest Deduction, Qualified Tuition Plans, Education IRAs and Health Scholarships.

[5] See IRS Publication 970, *Tax Benefits for Education for Use in Preparing 2006 Returns*

[6] These limits apply to the sum of qualified expenditures made on behalf of all the persons included on the filer's return.

Following a format parallel to the analysis of the impact of federal Hope tax credits above, this section examines the impact of the tuition and fee deduction on the assignment of payment responsibilities in the Design for Shared Responsibility. Like the tax credits, the tuition and fee deduction is based on the same out-of-pocket tuition and fee payments.

Dependent Students

Consistent with standard State Grant Program distributional analyses, 20 federal tuition and fee deductions were calculated along the income spectrum at $5,000 increments, from $0 to $100,000 adjusted gross income. The tuition and fee deduction was calculated for a household size of four, one member attending a postsecondary institution and two employed parents filing jointly using the standard deduction. It was also assumed no filers would be subject to the Alternative Minimum Tax.

The typical tuition and fee deduction was calculated using the mean Recognized Tuition and Fees presented above. It was further assumed the only discounts received by the student were the Federal Pell and Minnesota State Grants, if the student qualified. The out-of-pocket tuition and fees were set at tuition and fees minus the two grant amounts, if any.

The federal tuition and fee deduction was used to reduce the Recognized Price assigned to families, the Assigned Family Responsibility, in the analysis presented in this section. If the deduction exceeded the Assigned Family Responsibility, the excess was used to reduce the assignment to students, Assigned Student Responsibility. In no cases did the federal tuition and fee deduction result in a reduction in the Assigned Student Responsibilities.

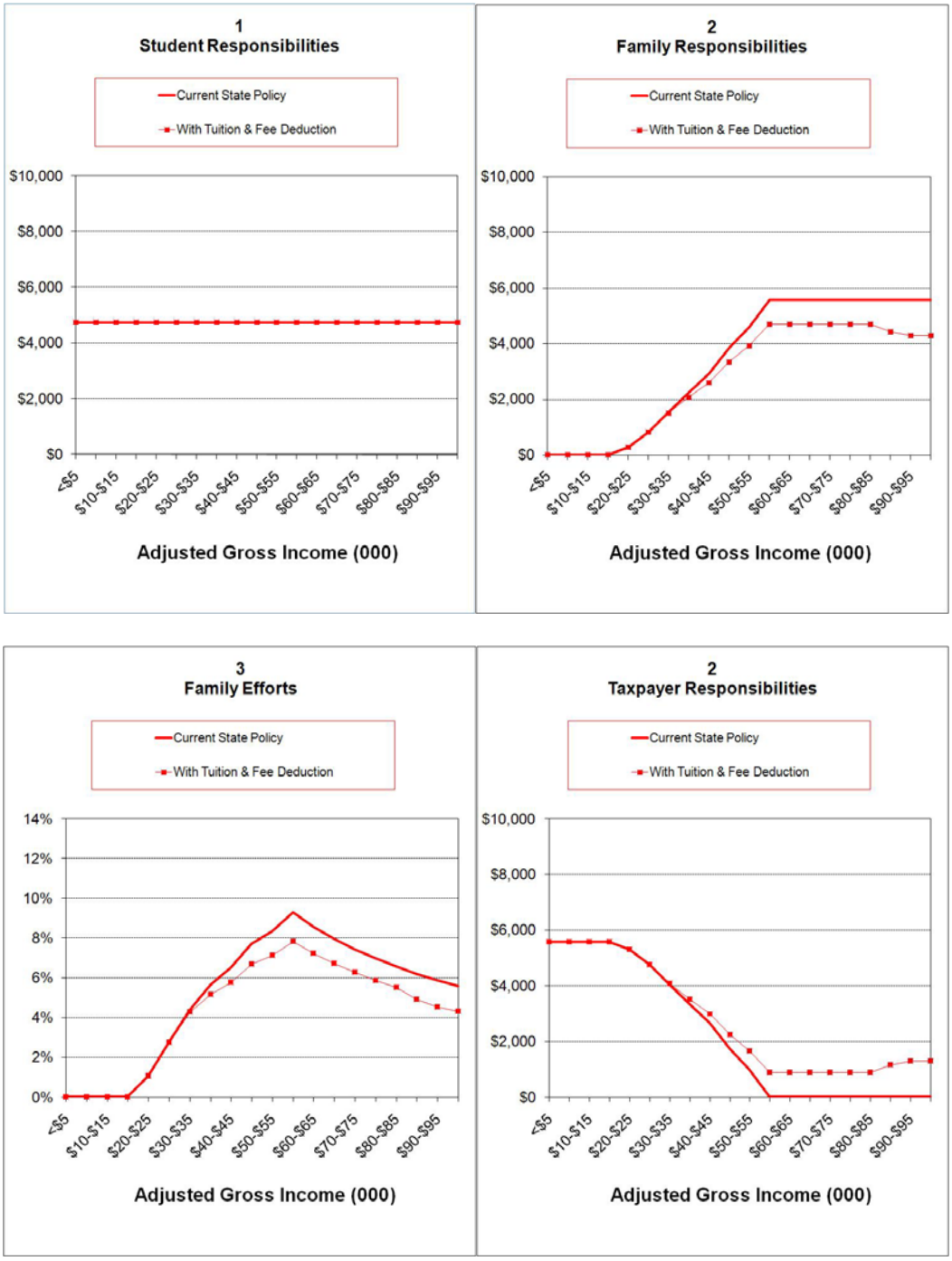
As above, two price points were used to describe the impact of the deduction on payment assignments. A low price of $10,317 and a higher price of $15,462 were used. These two points were used to check the sensitivity of the credits to price.

Dependent Students / Low Price Example / Federal Tuition and Fee Deduction

At the lower price ($10,317), the deduction increased taxpayer investment for typical dependent students from families reporting adjusted gross incomes of $35,000 or more up to the tax deduction cutoff of $160,000, see Panel 4 of the next chart. Assigned Taxpayer Responsibilities, as defined in the Design for Shared Responsibility, are shown as a solid line, with the sum of Assigned Taxpayer Responsibilities and the calculated tuition and fee deduction shown as a dashed line.

Families earning less than about $20,000 typically do not have a federal tax liability and the deduction is irrelevant, so the two lines in Panel 4 are the same up to $20,000. In this analysis, typical students from families earning less than $35,000 receive more in Federal Pell and Minnesota State Grants than the qualified tuition and fees and, therefore, had no out-of-pocket expenses as defined by the Internal Revenue Code. They did not qualify for the tuition and fee deduction. The deduction shifted the portion of the income distribution receiving taxpayers' investment to the right from about $60,000 adjusted gross income to $160,000, as shown on Panel 4.

Federal Tuition and Fee Deduction, Dependent Students, Recognized Price of Attendance = $10,312



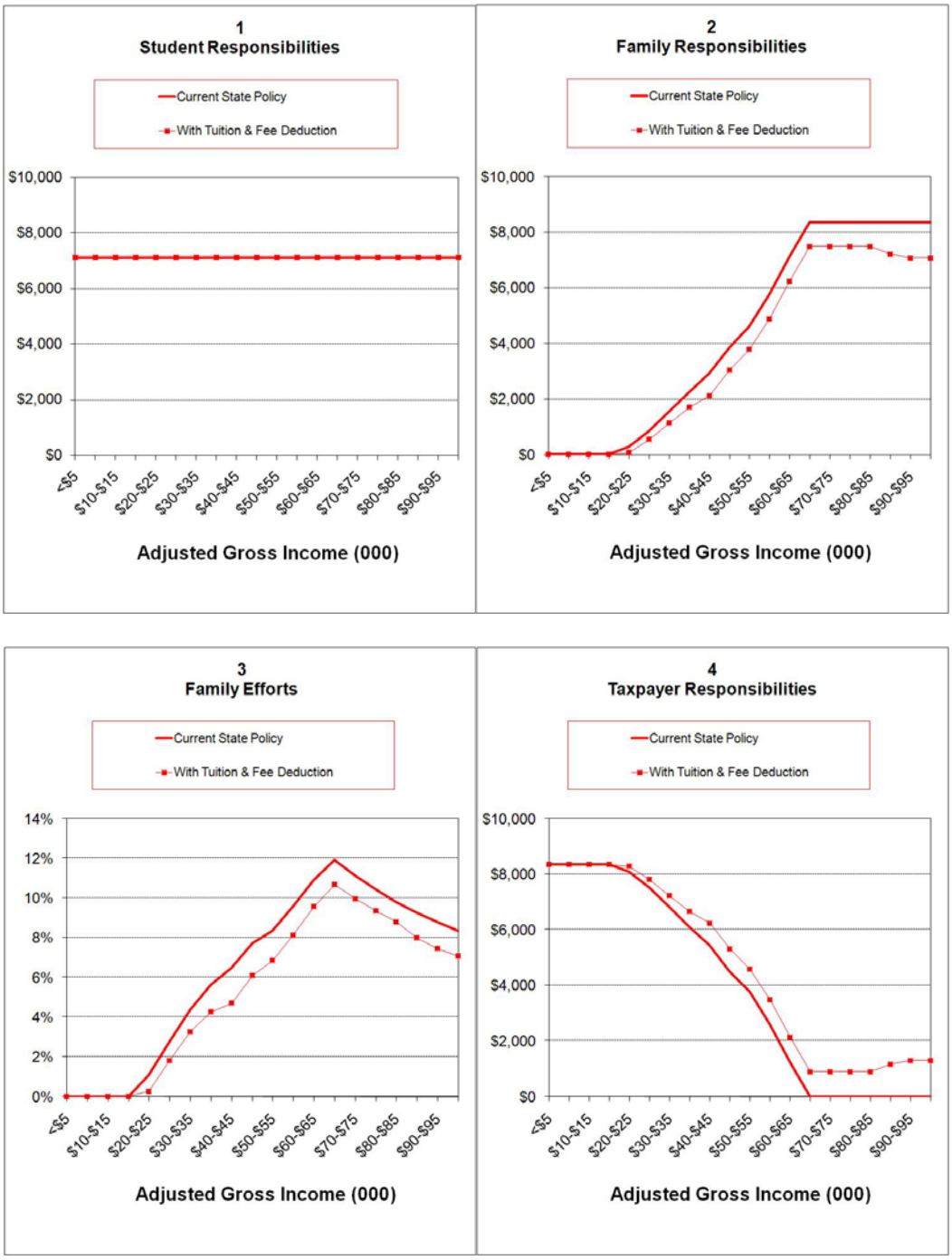
Increasing taxpayer investments through the tuition and fee deduction effectively reduced the amount assigned to families (parents, in this case), as shown in Panel 2. The lowering of assignments to families reduced the peak Assigned Family Effort, as shown in Panel 3, from nine to eight percent of adjusted gross income. This is equivalent to a two percentage point reduction in individual income tax rates.

Dependent Students / Higher Price Example / Federal Tuition and Fee Deduction

At the higher price ($15,462), the tuition and fee deduction increased taxpayer investment for typical dependent students for families reporting adjusted gross incomes from about $20,000 up to the program cutoff of $160,000, see Panel 4 of the next chart. Families earning less than about $20,000 typically do not have a federal tax liability so the deduction is irrelevant. Unlike the low price example, students from families with incomes in the $20,000 to $35,000 range would have qualified out-of-pocket expenses because the combination of Federal Pell and Minnesota State Grants was less than the qualified tuition and fees used at the $15,462 price.

The tuition and fee deduction shifted the portion of the income distribution receiving taxpayers' investment to the right from about $65,000 adjusted gross income to $160,000, as shown on Panel 4.

Federal Tuition and Fee Deduction, Dependent Students, Recognized Price of Attendance = $15,462



Increasing taxpayer investments through the tuition and fee deduction effectively reduced the amount assigned to families (parents, in this case), as shown in Panel 2. The lowering of assignments to families reduced the peak Assigned Family Effort, as shown in Panel 3, from 12 to 10 percent of adjusted gross income. This is equivalent to a two percentage point reduction in individual income tax rates.

Unmarried Independent Students with No Dependents

Consistent with standard State Grant Program distributional analyses, 20 federal tuition and fee deduction were calculated along the income spectrum at $5,000 increments, from $0 to $100,000 adjusted gross income. The deduction was calculated for a household size of one using the standard deduction. It was also assumed no filer would be subject to the Alternative Minimum Tax.

The typical tuition and fee deduction was calculated using the mean Recognized Tuition and Fees presented above. It was further assumed the only discounts received by the student were the federal Pell and Minnesota State Grants, if the student qualified. The out-of-pocket tuition and fees were the set at tuition and fees minus the two grant amounts, if any.

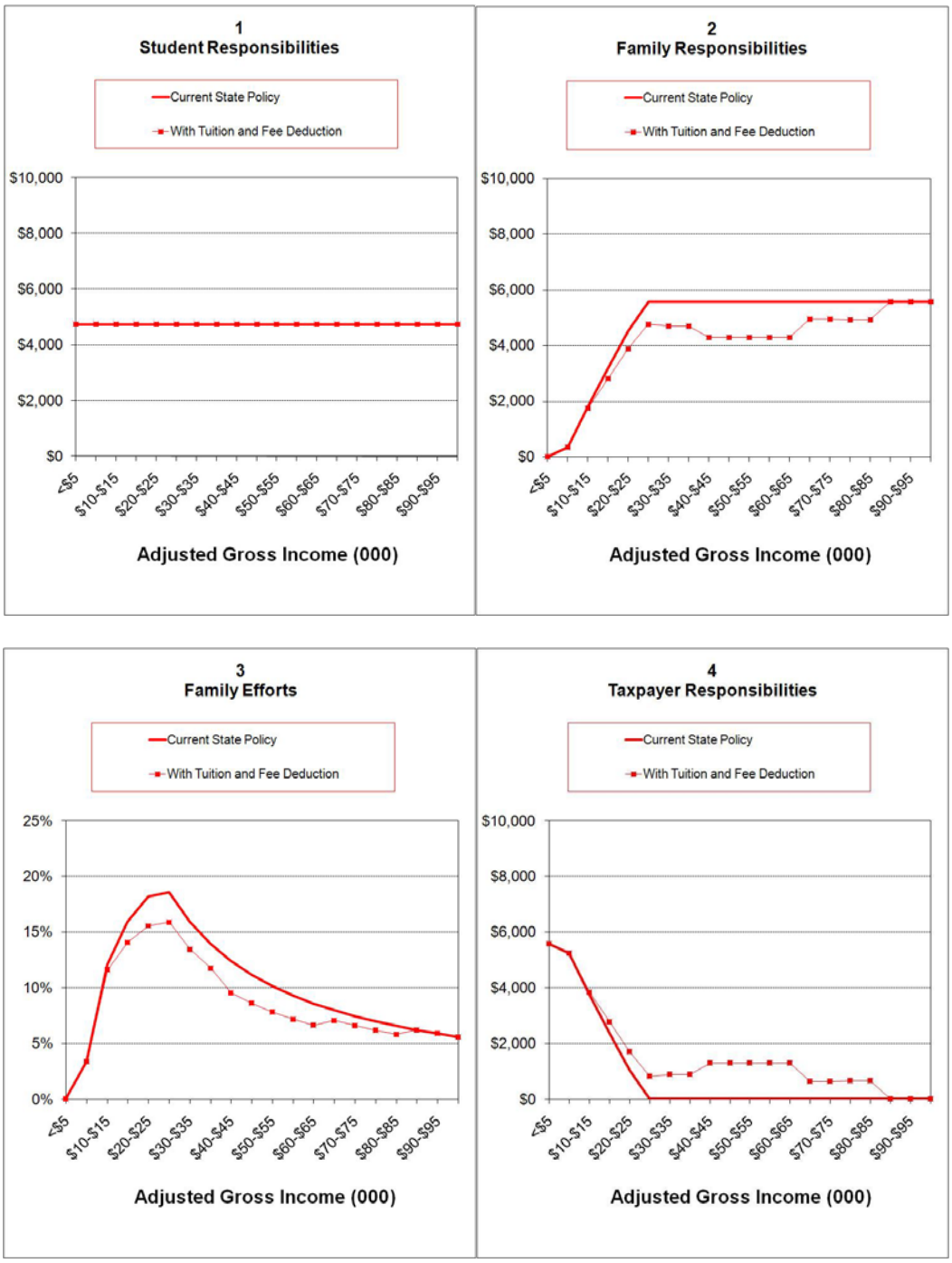
The federal tuition and fee deduction was used to reduce the Recognized Price assigned to families, the Assigned Family Responsibility, in the analysis presented in this section. If the deduction exceeded the Assigned Family Responsibility, the excess was used to reduce the assignment to students. In no cases did the Federal tuition and fees deduction result in a reduction in the Assigned Student Responsibilities.

Independent Students / Low Price Example / Federal Tuition and Fee Deduction

At the lower price ($10,317), the tuition and fee deduction increased taxpayer investment for typical unmarried independent students with no dependents reporting adjusted gross incomes of $10,000 or more up to the tax deduction cutoff of $80,000, as shown on Panel 4 of the next chart. Assigned Taxpayer Responsibilities, as defined in the Design for Shared Responsibility, are shown as a solid line, with the sum of Assigned Taxpayer Responsibilities and the calculated tuition and fee deduction shown as a dashed line.

Individuals earning less than about $5,000 typically do not have a federal tax liability and further reducing income through the deduction is irrelevant, so the two lines in Panel 4 are the same. In this analysis, typical students earning less than $10,000 receive more in federal Pell and Minnesota State Grants than the qualifying tuition and fees and, therefore, had no out-of-pocket expenses as defined by the Internal Revenue Code. They did not qualify for the tuition and fee deduction. The federal tuition and fee deduction shifted the portion of the income distribution receiving taxpayers' investment to the right from about $35,000 adjusted gross income to $80,000, as shown on Panel 4.

Federal Tuition and Fee deduction, Unmarried Students with No Dependents with Recognized Price = $10,317



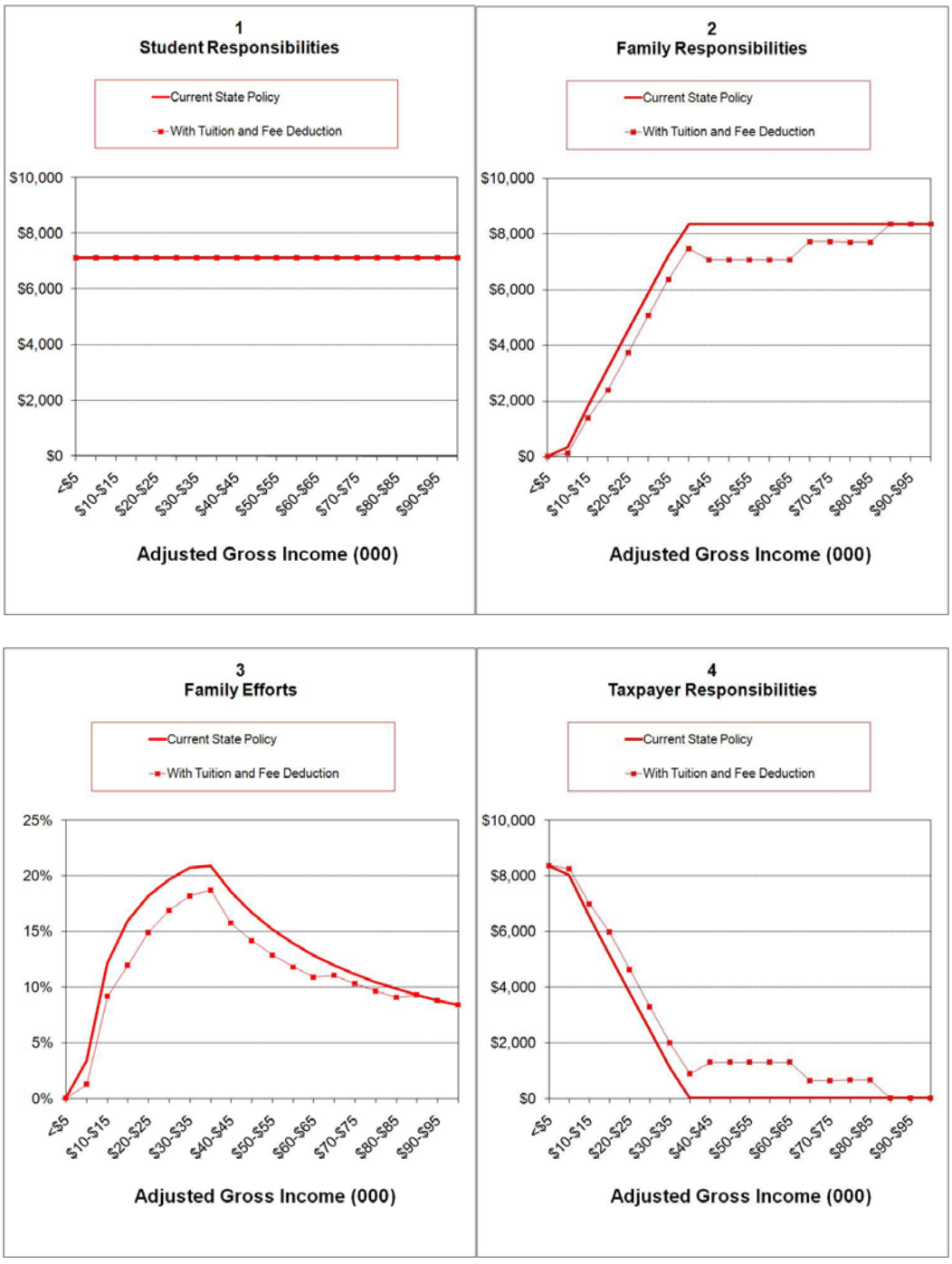
Increasing taxpayer investments through the tuition and fee deduction effectively reduced the amount assigned to families (students, in this case), as shown in Panel 2. The lowering of assignments to families reduced the peak Assigned Family Effort, as shown in Panel 3, from 18 to 16 percent of adjusted gross income, a two percentage point decrease.

Independent Students / Higher Price Example / Federal Tuition and Fee Deduction

At the higher price ($15,462), the federal tuition and fee deduction increased taxpayer investment for typical unmarried independent students with no dependents reporting adjusted gross incomes of $5,000 or more up to the tuition and fee deduction cutoff of $80,000, as shown on Panel 4 of the next chart. Assigned Taxpayer Responsibilities, as defined in the Design for Shared Responsibility, are shown as a solid line, with the sum of Assigned Taxpayer Responsibilities and the calculated tuition and fee deduction shown as a dashed line.

Individuals earning less than about $5,000 typically do not have a federal tax liability and further reducing income through the deduction is irrelevant, so the two lines in Panel 4 are the same. The deduction shifts the portion of the income distribution receiving taxpayers' investment to the right from about $40,000 adjusted gross income.

Federal Tuition and Fee Deduction, Unmarried Students with No Dependents with Recognized Price = $15,462



Increasing taxpayer investments through the deduction effectively reduced the amount assigned to families (students, in this case), as shown in Panel 2. The lowering of assignments to families reduced the peak Assigned Family Effort, as shown in Panel 3, from 21 percent of adjusted gross income to 18 percent. This is equivalent to a three percentage point reduction in individual income tax rates.

Families Receiving Federal Tax Benefits for Postsecondary Education and Federal Pell and Minnesota State Grants

Some families are eligible to receive both federal tax benefits and federal and state grants. Federal Hope and Lifetime Learning tax credits and the federal tuition and fee deduction are not currently counted in calculating Minnesota State Grants; however, federal Pell grants are counted. Some families will qualify for federal tax credits and Minnesota State Grants, and other families will qualify for the federal tuition and fee deduction and Minnesota State Grants. The fact that some families receive federal tax benefits and Minnesota State Grants, and the fact that federal tax benefits are not counted in calculating Minnesota State Grants, complicates program evaluation. Nevertheless, the panels on the following pages show the distribution of recipients of federal Pell Grants, Minnesota State Grants and federal tax benefits at the higher price alternative used in this analysis. The charts illustrate that Pell Grants, Minnesota State Grants and federal tax benefits are not mutually exclusive.

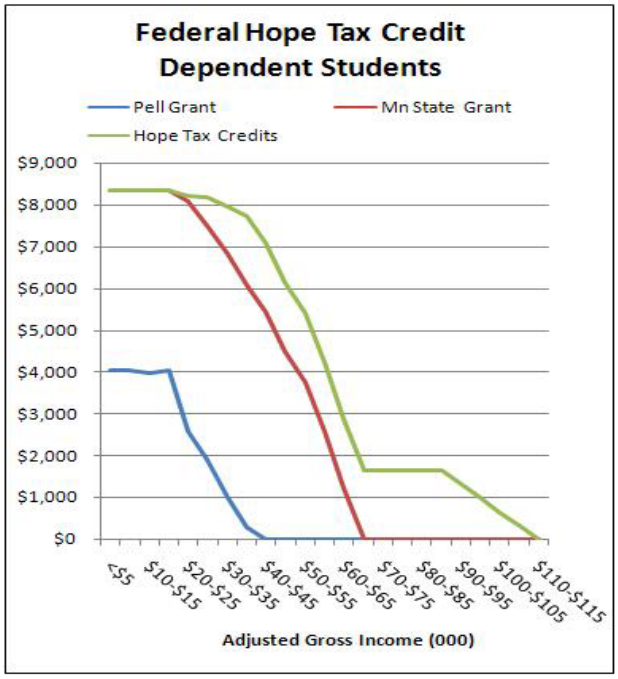
For dependent students at the higher priced option:

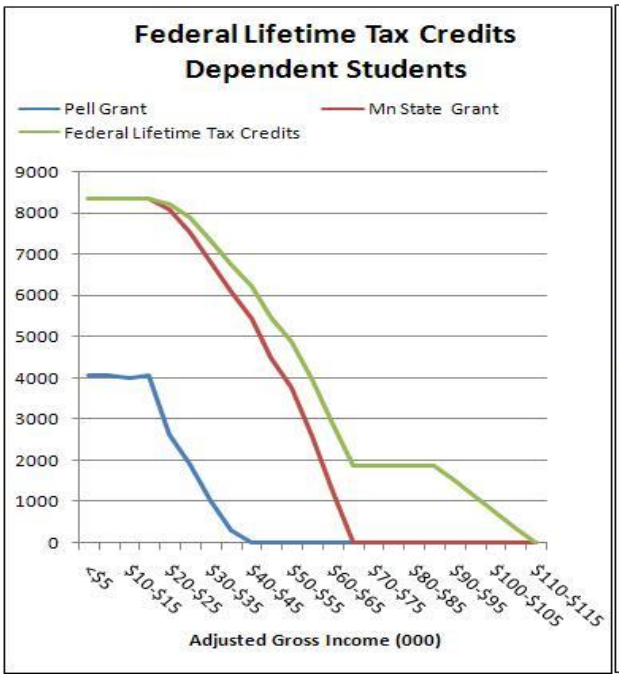
- Families up to $40,000 qualified for both federal Pell and Minnesota State Grants, as shown on the next page.
- Families in the $25,000 to $40,000 income range qualified for federal Pell Grants, Minnesota State Grants and federal tax credits, as shown on Panels 1 and 2 of the next page.
- Families in the $25,000 to $65,000 income range qualified for both Minnesota State Grants and federal tax credits, as shown on Panel 3 of the next page.

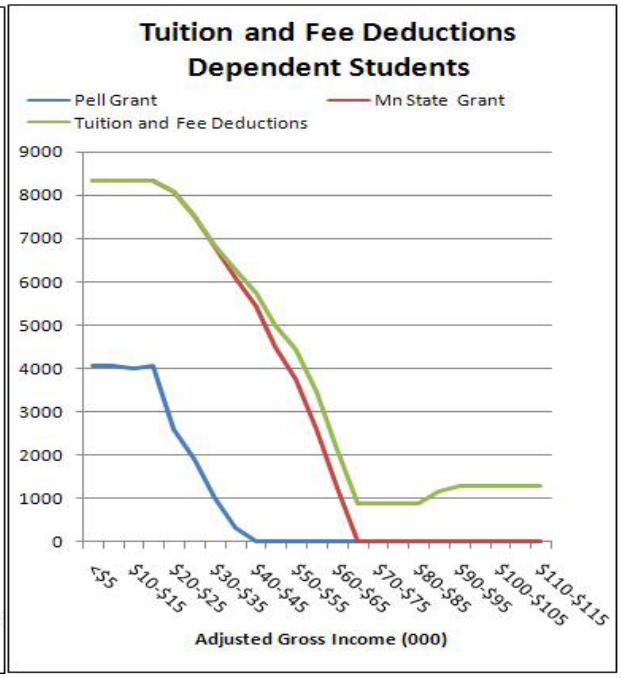
For independent students with no dependents at the higher priced option:

- Unmarried independent students with no dependents up to $20,000 qualified for both the federal Pell Grant and the Minnesota State Grant, as shown on the following pages.
- Unmarried independent students with no dependents in the $5,000 to $20,000 income range qualified for both federal Pell Grants and federal tax credits, as shown on the following pages.
- Unmarried independent students with no dependents in the $5,000 to $35,000 income range qualified for both Minnesota State Grants and federal tax credits, as shown on the following pages.

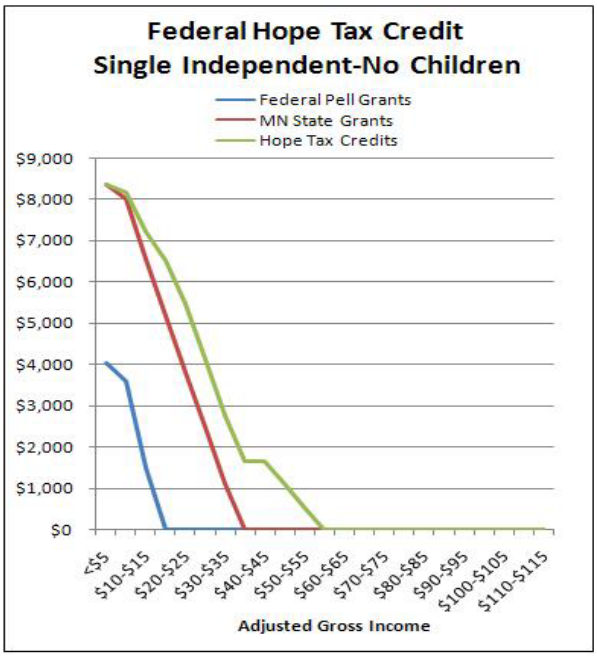
Distribution of Federal Tax Benefits, Pell Grants and Minnesota State Grants for Typical Dependent Students with Recognized Price of Attendance = $15,462

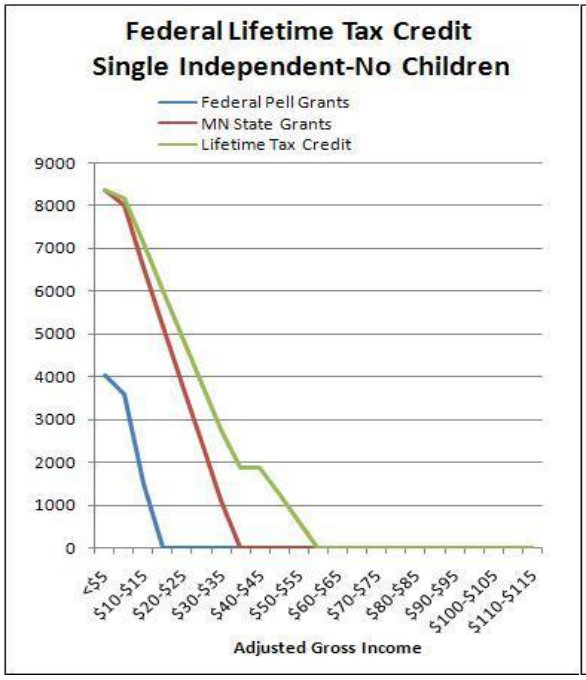


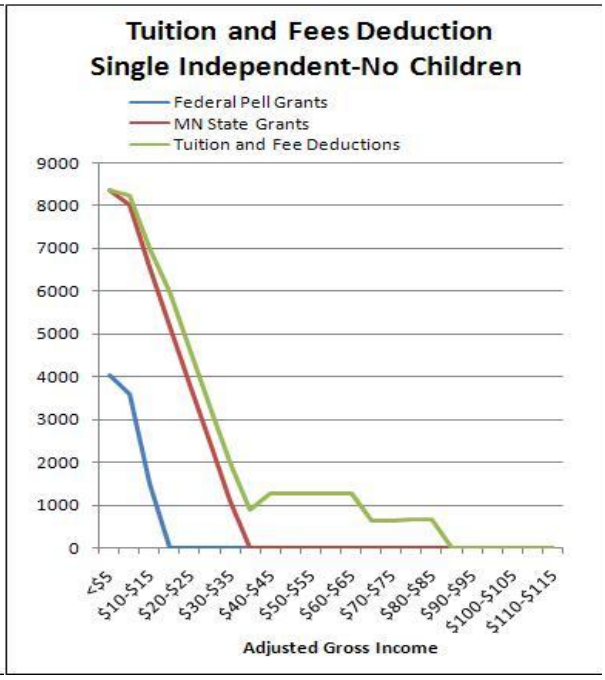




Distribution of Federal Tax Benefits, Pell and Minnesota State Grants for Unmarried Students with No Dependents with Recognized Price of Attendance = $15,462







Conclusions

- The federal Hope tax credit, the Lifetime Learning tax credit and the tuition and fee deduction assist student and families in paying for postsecondary education. Unlike student financial aid programs and practices, federal tax benefits are reimbursed though the filing of federal individual income taxes after students and families have incurred qualifying out-of-pocket postsecondary education expenses.

- Federal tax benefits generally provide postsecondary education benefits further up the income spectrum than student financial aid. Nevertheless, federal postsecondary education tax benefits and student financial aid are not mutually exclusive, as shown in this analysis. Some students and families receive federal tax benefits, federal Pell Grants and Minnesota State Grants.

- Federal tax benefits reduce financial burdens the most for students and families who are expected to pay the most, as determined by the federal need analysis used in student financial aid programs.

References

College Board (2007), *Trends in Student Aid 2007* [Available at www.collegeboard.org/trends.]

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Graduate Students and the Minnesota State Grant Program

Minnesota State Grant Review

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Introduction

The need for an educated and trained workforce has long been recognized as necessary for a healthy and productive economy. Given the broad range of skills, occupations and professions required to support the modern industrial and information economies, the federal and state governments monitor the makeup of the workforce and, if necessary, implement policies and programs designed to shape its composition. Normal market mechanisms usually allocate workers to jobs: wages rise with a shortage of workers in a particular occupation and fall with an oversupply. However, there are times when state and federal governments consider it necessary to influence market forces by providing incentives, such as tax deductions to employers to create certain kinds of jobs, grants to schools to develop training programs, and financial aid to attract students to particular careers.

In Minnesota there is no state-level coordination of education and financial aid policy with the state workforce needs and projections. Individual colleges and universities may be aware of the state's employment projections, but individual departments, campuses and systems are allowed to allocate institutional financial aid as they see fit. This is particularly true in regard to graduate student financial aid. The Department of Employment and Economic Development does not provide state graduate and first profession workforce needs to state colleges and universities, nor do the colleges and universities provide graduate and first professional workforce supply data to DEED.

This report addresses the requirement to "assess the feasibility of expanding the eligibility for state grants to include graduate and first professional students pursuing degree programs deemed to be important to the workforce needs of the state". The content is of this report is broader than this directive and discuses many forms of aid for these students.

The first section reports findings from the current literature on this topic. Section two contains information published by the federal government indicating how graduate and professional students currently pay for their studies. Section three addresses the question of "degree programs deemed to be important to the workforce needs of the state". Section four describes the generic structure of current approaches to incent students into various occupations and improve workforce skills. Section five briefly explains institutional aid programs available at the University of Minnesota and other institutions. Section six describes state level programs at the Health Department. The final section addresses considerations that need to be made to extend the state grant program to these students.

Current Literature: A Brief Review

The current published literature on financial aid for graduate and professional students was evaluated and key findings were identified. This section summarizes four papers in this area.

1. Kenneth E Redd, Financing *Graduate and Professional Education: 2003-2004,* NASFAA Monograph, 2006

- Graduate students generally are 30 years old or older, have a spouse or young children, and consider themselves primarily employees who are attending school part-time to gain new skills for professional advancement or other opportunities.

- Professional students tend to be younger than 30, are unmarried and have no children or other financial responsibilities, are enrolled full-time, and consider their studies to be their first priority.

- Because of these differences, these students should be examined differently by policymakers and the media.

- Even with these differences, most graduate and professional students used loans as the main source for financing their education. More than half of all master's degree candidates and more than 80 percent of those seeking professional degrees received at least one student loan to finance their education in 2003-2004.

- Less than one third of the students in most programs received grants, fellowships, assistantships, or other sources of grant money.

- About half of full-time doctoral and theology students received grants/fellowships, compared with less than one-third of those in law and medical schools.

- And nearly half of full-time doctoral candidates received assistantships, while 45 percent of part-time MBA students were awarded employer-based aid.

2. Susan P Choy, Emily F Cafaldi, *Student Financing of Graduate and First-professional Education, 2003-04: Profiles of students in Selected Degree Programs and Part-Time Students,* NCES Report, 2006

- More than half of all graduate and first-professional students were pursuing master's degrees, most often part time, and about half of all master's degree students were working on degrees in business or education.

- Master's degree students in business and education typically waited a number of years after finishing college before enrolling in graduate school, and about three-fourths of them worked full time while enrolled.

- Many business students received aid from their employers. Master's degree students in fields other than business or education followed a more traditional pattern: they were more likely to enroll full time, less likely to work full time, and more likely to consider themselves primarily students.

- Doctoral students in fields other than education were more likely than master's students to be full-time students and to enroll immediately after earning their bachelor's degree. Most of them received financial aid, often a combination of grants, loans, and assistantships.

- Doctoral students in education were more likely than other doctoral students to delay enrollment after earning a bachelor's degree and to continue to work full time while enrolled.

- First-professional students tended to be younger than master's and doctoral students, to enroll immediately after graduating from college, and to attend full time. They relied heavily on loans to pay for their education.

- About half of all graduate and first-professional students attended exclusively part time. Students in certain fields (notably business and education) and students with work and family responsibilities were especially likely to attend part time. Compared with students who attended exclusively full time, they were more likely to be female, age 30 or older, married with dependents, and white.

- Most were enrolled at the master's level or taking courses but not in a degree program. Most worked full time and considered themselves primarily employees rather than students. They were less likely than full-time students to receive financial aid, but the majority received something, most frequently grant aid (which includes employer aid).

- About one-fourth of them borrowed (even when they were working full time). The average amount borrowed increased with tuition, but it was not systematically related to income.

3. Berkner, L., He, S., Lew, S., Cominole, M., and Siegel, P. *2003–04 National Postsecondary Student Aid Study (NPSAS:04) Student Financial Aid Estimates for 2003–04* (NCES 2005–158), 2005, U.S. Department of Education, National Center for Education Statistics. Washington, D.C.

- About three-fourths (73 percent) of all graduate and first-professional students enrolled in the 2003–04 academic year received some type of financial aid. The average amount of aid received was $15,100.

- Forty-two percent of graduate and first-professional students took out student loans in 2003–04, borrowing an average amount of $16,800. Among students in first professional degree programs, 78 percent took out student loans, borrowing an average amount of $26,400.

- In the 2003–04 academic year, 40 percent of all graduate and first-professional students received grants from institutional, state, federal, or private sources, including employers. The average amount received was $5,700.

- Fifteen percent of graduate and first-professional students received aid from teaching, research, or other graduate assistantships in 2003–04. The average amount received from assistantships was $10,000. Forty-one percent of graduate students in doctoral degree programs held assistantships and received an average amount of $13,300.

- Excluding students holding assistantships, 21 percent of graduate and first-professional students received aid from employers in 2003–04, usually as tuition reimbursements. The average aid amount that they received from employers was $3,000. Among part time students, 26 to 29 percent received aid from employers.

4. Jane Wellman, Accounting *for State Student Aid: How State Policy and Student Aid Connect,* 2002, The Institute for Higher Education Policy

- State policies and accountability strategies for student aid are examined in this report for eleven states: California, Florida, Illinois, Minnesota, New Jersey, New York, Ohio, Texas, Pennsylvania, Vermont and Virginia. These states were selected because they are making some of the largest investments in state-funded aid, and because they represent a cross-section of approaches to the governance and administration of student aid.

- The study found that there was often a disconnection between state economic and education policies, and state financial aid policy: namely, that financial aid policy was not developed in the context of overall state policy. Financial aid linked to workforce development was singled out for particular criticism.

- The report found that: “In many states, new programs are added on an ad hoc basis, as student aid is a favorite target for special interest legislation designed to fund niche purposes, such as getting more students into high demand occupations like teaching and nursing. These small aid programs end up having a political half-life that allows them to survive despite weak or nonexistent evidence of their effectiveness.”

- At the same time, most states are under funding their own goals for need-based grant programs, which are suffering for funding despite recent heavy increases in tuitions.

- The report concludes by recommending that states “avoid special purpose programs.”

Current Estimates of Tuition and Other Prices

The national government produces estimates of prices paid by graduate and first professional students and available aid. The following three tables show this information for various characteristics for 2003-04 for the nation. The first table shows the average annual tuition and fees, total price, amount of aid and net access price for full-time graduate and first-professional students and percentage of all students attending full time, by type of aid and program and institutional characteristics. Table 2 shows the percentage of full-time graduate and first-professional students with aid and the average annual amount of aid for students with aid, by type of aid and program and institutional characteristics. Table 3 shows the average annual tuition and fees, percentage with grants and employer aid, average annual amount of grants and employer aid, net tuition after grants for part-time graduate students, and percentage attending part time, by program and institutional characteristics. This information is based on a national survey. Some of this data is available for the state, but given sample size issues the information it is not as complete as the national figures.

Average annual tuition and fees, total price, amount of aid and net access price for full-time graduate and first-professional students and percentage of all students attending full time, by type of aid and program and institutional characteristics: 2003–04

	Average for full-time students (including unaided students)							
Characteristic	Tuition and fees	Total price[1]	Total aid	Grants	Loans	Assistant-ships and other aid	Net access price (total price minus total aid)	Percent attending full time
Master's degree students								
Total	$11,500	$27,400	$14,500	$2,800	$9,500	$2,200	$13,000	20.6
Degree program								
Business administration (M.B.A.)	16,000	33,500	15,400	2,700	11,600	1,100!	18,100	18.7
Education (any master's)	7,900	22,300	11,500	1,600!	9,000	900!	10,700	11.2
Any other master's degree	11,400	27,200	15,000	3,200	9,100	2,700	12,300	27.2
Selected fields of study								
Humanities	10,500	26,400	15,200	4,100	8,600	2,500	11,200	27.3
Social/behavioral sciences	10,900	27,100	18,800	4,700!	9,700	4,400	8,300	34.2
Life and physical sciences	10,200	25,800	14,900	2,500!	7,000!	5,400!	10,900	22.5
Engineering/computer science/mathematics	12,800	28,100	14,800	5,600	3,700!	5,500	13,300	19.1
Institution type								
Public	7,400	21,900	12,200	2,700	6,300	3,200	9,700	20.7
Private not-for-profit	17,400	34,100	17,700	3,300	13,200	1,200	16,400	19.3
Doctoral degree students								
Total	14,400	33,300	23,400	8,300	7,600	7,500	10,000	48.8
Degree program								
Ph.D. (except in education)	14,900	33,600	24,200	10,800	2,900	10,500	9,400	52.8
Education (any doctorate)[2]	10,700	27,900	14,100	5,100	4,600	4,500	13,700	19.2
Any other doctoral degree[3]	14,000	33,900	23,500	3,900	17,600	2,100	10,400	57.5
Selected fields of study								
Humanities	13,400	30,400	16,700	7,800	2,600	6,300	13,700	39.0
Social/behavioral sciences	15,300	33,600	22,700	8,700	8,000	6,000	10,900	52.3
Life and physical sciences	14,700	34,800	26,100	12,100	2,000!	12,100	8,600	60.2
Engineering/computer science/mathematics	15,400	33,400	25,400	11,600	1,400!	12,400	8,000	51.8
Institution type								
Public	10,000	28,600	21,800	8,100	5,700	8,000	6,800	46.2
Private not-for-profit	20,500	40,200	26,400	8,800	10,300	7,300	13,900	52.3
First-professional degree students								
Total	16,700	36,500	26,900	2,800	23,300	800	9,600	78.1
Degree program								
Medicine (M.D.)	17,100	40,400	31,600	2,900	27,400	1,200	8,800	91.6
Other health science degree	16,400	36,400	27,700	1,800!	25,100	800	8,700	89.7
Law (L.L.B. or J.D.)	17,000	34,700	24,000	3,300	20,200	600	10,700	76.1
Theology (M.Div., M.H.L., B.D.)	9,500!	23,900	11,500	5,000!	6,000!	500!	12,400	22.8
Institution type								
Public	9,800	30,300	23,600	2,200	20,500	800	6,700	88.7
Private not-for-profit	22,600	41,900	29,800	3,300	25,700	800	12,200	70.8

! Interpret data with caution (estimates are unstable).

[1] Total price (also known as the student budget) includes tuition and fees, books and materials, and living expenses.

[2] Ph.D. in education, Ed.D., or any other doctoral degree in which education is the field of study.

[3] Examples include D.B.A. (Doctor of Business Administration), D.F.A. (Doctor of Fine Arts), and D.P.A. (Doctor of Public Administration).

NOTE: Table is limited to students who attended for the full year at only one institution in 2003–04 to keep aid and price data consistent. *Full-time* means enrolled full time (according to the institution's definition) for at least 9 months during the 2003–04 academic year; full-time enrollment does not preclude working as well. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003–04 National Postsecondary Student Aid Study (NPSAS:04).

Percentage of full-time graduate and first-professional students with aid and the average annual amount of aid for students with aid, by type of aid and program and institutional characteristics: 2003-04

	Percent				Average (for full-time students with each type of aid)			
Characteristic	Any aid	Grants	Loans	Assistant-ships and other aid	Total aid	Grants	Loans	Assistant-ships and other aid
Master's degree students								
Total	81.0	39.9	57.8	25.9	$17,900	$7,100	$16,400	$8,300
Degree program								
Business administration (M.B.A.)	75.3	38.3	55.6	16.9!	20,400	7,000	20,800	‡
Education (any master's)	72.4	24.9	61.4	12.1!	15,900	6,400	14,700	‡
Any other master's degree	84.6	44.2	57.3	31.8	17,700	7,200	15,800	8,600
Selected fields of study								
Humanities	88.7	52.0	58.0	36.1	17,200	8,000	14,800	6,900
Social/behavioral sciences	90.5	55.8	65.1	47.3	20,700	8,400	14,900	9,300
Life and physical sciences	80.6	30.4!	43.3!	45.3!	18,500	‡	‡	‡
Engineering/computer science/mathematics	85.6	52.8	25.9	53.4	17,300	10,600	‡	10,300
Institution type								
Public	79.2	42.2	48.3	36.3	15,400	6,400	13,100	8,700
Private not-for-profit	83.3	39.1	67.9	16.9	21,300	8,500	19,400	7,200
Doctoral degree students								
Total	92.9	64.7	37.6	53.2	25,100	12,800	20,200	14,100
Degree program								
Ph.D. (except in education)	95.4	74.4	21.3	68.3	25,400	14,500	13,500	15,400
Education (any doctorate)1	79.9	51.4	35.0	41.9	17,700	9,800	13,000	10,800
Any other doctoral degree2	90.6	48.1	70.4	25.7	26,000	8,000	25,000	8,100
Selected fields of study								
Humanities	89.7	68.1	25.7	56.0	18,600	11,400	10,300	11,200
Social/behavioral sciences	93.1	67.0	42.9	48.0	24,400	13,000	18,600	12,600
Life and physical sciences	95.5	78.9	15.8	68.7	27,400	15,300	12,500	17,600
Engineering/computer science/mathematics	97.3	77.7	11.7	78.8	26,100	15,000	11,700	15,700
Institution type								
Public	93.9	69.7	33.5	58.8	23,200	11,600	17,100	13,600
Private not-for-profit	91.1	59.3	41.8	48.7	28,900	14,900	24,500	14,900
First-professional degree students								
Total	92.0	39.7	84.6	15.1	29,300	7,000	27,500	5,500
Degree program								
Medicine (M.D.)	92.0	39.4	84.1	14.7	34,400	7,500	32,600	8,500
Other health science degree	94.0	38.1	87.6	16.9!	29,500	4,600	28,700	4,700!
Law (L.L.B. or J.D.)	91.9	40.0	85.7	14.2	26,200	8,200	23,600	4,000
Theology (M.Div., M.H.L., B.D.)	73.3	53.9!	46.8	11.9!	‡	‡	‡	‡
Institution type								
Public	92.2	42.5	84.3	13.7	25,600	5,300	24,400	5,900
Private not-for-profit	91.8	37.3	85.0	16.2	32,500	8,800	30,200	5,200

! Interpret data with caution (estimates are unstable).

‡ Reporting standards not met.

[1]Ph.D. in education, Ed.D., or any other doctoral degree in which education is the field of study.

[2]Examples include D.B.A. (Doctor of Business Administration), D.F.A. (Doctor of Fine Arts), and D.P.A. (Doctor of Public Administration).

NOTE: Table is limited to students who attended for the full year at only one institution in 2003–04 to keep aid and price data consistent. *Full time* means enrolled full time (according to the institution's definition) for at least 9 months during the 2003–04 academic year; full-time enrollment does not preclude working as well. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003–04 National Postsecondary Student Aid Study (NPSAS:04).

Average annual tuition and fees, percentage with grants and employer aid, average annual amount of grants and employer aid, net tuition after grants for part-time graduate students, and percentage attending part time, by program and institutional characteristics: 2003–04

Characteristic	Average tuition and fees	Percent with grants	Percent with employer aid[1]	Average grants (including unaided students)	Average employer aid[1] (including unaided students)	Net tuition after grants[2] (all part-time students)	Percent attending part time
Master's degree students							
Total	$5,600	41.1	27.9	$1,600	$900	$4,300	44.3
Degree program							
Business administration (M.B.A.)	6,400	58.7	48.7	2,800	2,300	4,200	36.8
Education (any master's)	5,500	36.3	26.3	1,000	500	4,700	52.0
Any other master's degree	5,400	39.3	22.5	1,700	800	4,100	42.3
Selected fields of study							
Humanities	4,900	42.5	18.1	1,800	800!	3,500	46.1
Social/behavioral sciences	4,700	20.8!	10.7!	600!	200!	4,400	40.6
Life and physical sciences	5,700	37.7	13.7!	2,200!	600!	3,800	45.9
Engineering/computer science/mathematics	6,500	43.7	29.9	2,100	900	4,800	48.2
Institution type							
Public	3,700	38.6	24.7	1,300	700	2,800	48.4
Private not-for-profit	8,100	44.5	31.5	1,900	1,100	6,500	42.5
Doctoral degree students							
Total	5,800	48.2	22.7	3,200	800	3,800	32.5
Degree program							
Ph.D. (except in education)	5,500	52.7	17.5	4,200	600	3,100	29.7
Education (any doctorate)[3]	4,800	41.2	27.3	1,700	800	3,600	55.6
Any other doctoral degree[4]	7,700	46.1	29.8	2,700!	1,100!	5,900	24.9
Selected fields of study							
Humanities	5,100	44.3	15.4	3,400	400	3,300	35.8
Social/behavioral sciences	6,700!	46.7	21.2	2,400!	400	5,100	31.7
Life and physical sciences	5,300	73.2	16.6	7,300	600	1,800	25.2
Engineering/computer science/mathematics	7,100	52.1	17.7	4,000	500!	4,600	30.1
Institution type							
Public	4,700	48.4	18.9	3,200	500	3,000	35.3
Private not-for-profit	7,000	43.8	24.1	3,200	1,100	4,800	27.5

! Interpret data with caution (estimates are unstable).

[1] Employer aid is considered a type of grant aid and therefore is included in the estimates for grants as well.

[2] If grants were greater than tuition, net tuition was set to zero. Consequently, average net tuition may be larger than average tuition and fees minus average grants.

[3] Ph.D. in education, Ed.D., or any other doctoral degree in which education is the field of study.

[4] Examples include D.B.A. (Doctor of Business Administration), D.F.A. (Doctor of Fine Arts), and D.P.A. (Doctor of Public Administration).

NOTE: Table is limited to students who attended for the full year at only one institution in 2003–04 to keep aid and price consistent. Too few first-professional students enrolled part time to present their data separately. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2003–04 National Postsecondary Student Aid Study (NPSAS:04).

Programs Important to the State's Workforce Needs

The legislation requires the agency to identify "degree programs deemed to be important to the workforce needs of the state". This report does not specifically identify particular degree programs. Instead, we rely on occupational demand data produced by the Department of Employment and Economic Development to indicate what occupations that require a graduate or professional degree will be needed in the future.

DEED, in conjunction with the Bureau of Labor Statistics, biannually produces occupational projections for a 10 year period for about 500 different occupations. BLS also attributes educational requirements for these occupations. Significantly, neither DEED nor BLS projects the supply side of the equation; only estimates of demand through a projection of new jobs needed and replacement jobs as people retire from the workforce. The most recent complete report done used a base year of 2004 with projections for 2005-2014 demand. The three tables below show occupational demand by graduate or professional area ranked from highest to lowest. There are a number of provisos attached to these projections that are listed on the DEED and BLS web sites. The three tables below show the top 15 occupations at each educational level sorted by the number of new hires. The occupational label indicates the level of education needed as a minimum to perform the responsibilities of that profession.

Minnesota Employment Projections of 2005-2014 New Hires for Occupations Requiring Doctoral Degrees for Top 15 Occupations

Doctoral Occupation	2004 Employment	New Hires	Percent Change
Vocational Education Teachers, Postsecondary	3,670	1,828	49.8%
Graduate Teaching Assistants	2,657	1,258	47.3%
Medical Scientists, Except Epidemiologists	1,600	952	59.5%
Art, Drama, and Music Teachers, Postsecondary	1,959	927	47.3%
Health Specialties Teachers, Postsecondary	1,686	813	48.2%
Business Teachers, Postsecondary	1,511	744	49.2%
Education Teachers, Postsecondary	1,446	688	47.6%
English Language & Literature Teachers, Postsec.	1,042	501	48.1%
Biological Science Teachers, Postsecondary	786	373	47.5%
Mathematical Science Teachers, Postsecondary	762	359	47.1%
Communications Teachers, Postsecondary	662	321	48.5%
Philosophy and Religion Teachers, Postsecondary	680	320	47.1%
Nursing Instructors and Teachers, Postsecondary	632	298	47.2%
Computer Science Teachers, Postsecondary	563	283	50.3%
Postsecondary Teachers, All Other	611	273	44.7%

Minnesota Employment Projections of 2005-2014 New Hires for Occupations Requiring Professional Degrees for Top 15 Occupations

First Professional Occupation	2004 Employment	New Hires	Percent Change
Lawyers	16,345	4,195	25.7%
Pharmacists	4,058	1,725	42.5%
Family and General Practitioners	3,661	1,560	42.6%
Physicians and Surgeons, All Other	3,780	1,481	39.2%
Dentists, General	3,339	884	26.5%
Surgeons	1,399	618	44.2%
Internists, General	1,187	520	43.8%
Chiropractors	1,082	465	43.0%
Veterinarians	1,096	376	34.3%
Pediatricians, General	756	328	43.4%
Optometrists	700	313	44.7%
Anesthesiologists	684	296	43.3%
Psychiatrists	365	142	38.9%
Obstetricians and Gynecologists	325	134	41.2%
Podiatrists	218	85	39.0%

Minnesota Employment Projections of 2005-2014 New Hires for Occupations Requiring Master's Degrees for Top 15 Occupations

Master's Level Occupation	2004 Employment	New Hires	Percent Change
Clergy	6,824	1,937	28.4%
Educational, Vocational, and School Counselors	4,579	1,860	40.6%
Clinical, Counseling, and School Psychologists	3,401	1,413	41.5%
Physical Therapists	3,622	1,208	33.4%
Mental Health and Substance Abuse Social Workers	2,480	1,107	44.6%
Rehabilitation Counselors	2,200	898	40.8%
Speech-Language Pathologists	2,498	764	30.6%
Substance Abuse & Behavioral Disorder Counselors	1,663	724	43.5%
Mental Health Counselors	1,424	645	45.3%
Instructional Coordinators	1,907	633	33.2%
Social Workers, All Other	1,770	620	35.0%
Librarians	1,925	577	30.0%
Counselors, All Other	1,335	448	33.6%
Health Educators	1,105	438	39.6%
Operations Research Analysts	1,447	425	29.4%

Connecting Student Financial Aid to State Workforce Needs

Federal and state governments have linked workforce development to education in the following three ways, depending on who receives the money. The specific conditions and details vary depending on the program.

1. Public dollars are given to private employers to use for training their workers for specific occupations and skills. Various employer tax benefits or exemptions for training workers are a variation on this theme. The Jobs Skills Partnership program is one example.

2. Federal and state grants are given to higher education institutions to develop specific education and training programs. The joint Ford Motor Company / MnSCU training program is an example of this approach.

3. Financial aid is given directly to students as an incentive to pursue a specified career and/or work in a specified location or for a particular employer. Here again certain tax benefits or exemptions may be used as incentives in place of or in addition to loans and grants.

There are advantages and disadvantages to each approach. Because this paper deals with direct student aid, concerns over the third approach are detailed.

These mechanisms involve grants, scholarships, and fellowships paid directly to students as incentives to pursue a particular major, discipline or career. The financial aid goes to the student prior to entering the workforce. There are several problems with this approach. First, if there are "no strings attached," these programs involve a risk for the funding agency since students may change their minds after graduation. In this case, while the grant may have achieved the desired financial aid goal, it did not provide the desired effect in the labor markets. Given the risk involved for the funding agency, many programs adopted a "Service/Payback" model. In these programs, the student receives the financial aid while in school and agrees to work a fixed number of years in a particular job or geographic region. There may be a number of different conditions attached to the financial aid, but almost all programs now require that the student pay back the financial aid if the student does not fulfill the workforce requirements of the financial support.[1]

Second, questions have been raised whether the grants attract students who otherwise would not have chosen the particular field. In other words, are we paying students for something they would have done anyway? If the goal of the public program is to entice students into a particular field, it's the student at the margin whose change in behavior must be accomplished to meet the objective.

[1] If students are required to pay back the grant in the event they choose not to work in the agreed upon field, then the "grant" is really a loan. "The term 'scholarship' in this instance is a misnomer because the aid is actually a service-payback loan. See Arfin, 1986.

Third, one of the problems students encounter in service or payback programs is that the job market may change and there could be a lack of qualifying jobs for students when they graduate. If there are no jobs, students often feel that they have been misled and are unhappy about having to payback the financial aid.

On-the-job incentives are designed to recruit workers for a particular occupation, employer, government agency, or geographic region from the existing workforce. Incentives are paid to students after their education is complete and they have entered the workforce. Incentives commonly take the form of loan repayment or loan forgiveness. Maplethorpe in her 2001 article "*Advantages and disadvantages of state loan forgiveness and loan repayment programs"* defines the two approaches.

> "In a loan forgiveness program the state "forgives" (i.e., repays) a certain dollar amount of the loan for each year of service that the student performs in the qualifying field of study. If the student does not complete the total amount of service required, the student must either repay the remaining 'unforgiven' portion of the loan or the entire loan amount (the exact provisions vary from state to state." (Maplethorpe, 2001)
>
> "An alternate but less often used incentive program (is one) that repays the educational loans (both principal and interest) that a former student has accumulated when he or she works in the designated field of service. These programs are usually referred to as "loan repayment programs." Loan repayment programs may cover all of the borrower's educational loans or they may be restricted to certain qualifying loans (e.g., specific federal loans)." (Maplethorpe, 2001)
>
> "These mechanisms eliminate the risk that students may change their minds. However, loan 'forgiveness' programs require significant administrative overhead involving tracking borrower's employment for many years and regularly certifying eligibility for 'forgiveness.' Loan 'repayment' programs do not require as much administrative overhead; the employer simply makes the student's loan payments as long as the student is an employee." (Maplethorpe, 2001)

In effect, loan repayment programs amount to salary increases for the students. It should be noted that, in this case, the cost of paying the loan is shifted from the student to the employer, and may involve shifting the cost from the taxpayer to a private employer. However, in some cases private employers may lobby for a "loan forgiveness" program where the burden of paying for the loan is shifted to the taxpayer.[2]

[2] Under certain conditions loan amounts "forgiven" by the lender or paid by the employer are taxable as part of the student's income.

Institutional Graduate Student Financial Aid

It is important to distinguish financial aid paid directly to graduate students from financial aid paid to graduate students by the college or university they are attending. The Minnesota State Grant Program does not provide direct grants for graduate study. However, graduate students are eligible for federal subsidized and unsubsidized student loans.

Minnesota First Professional (Law, MBA, MAED, other) graduate students rely mainly on loans to pay for their graduate education, with some help from employers for MBAs. Teachers can recover some of the cost as salary increases after completion of the graduate work.

For graduate students (academic MA and Ph.D.) financial aid in the form of institutional and departmental grants, fellowships, assistantships and tuition waivers is often available directly from the university attended rather than from the state financial aid program. Though considered as a form of financial aid, the teaching and research assistantships and some fellowships are treated as jobs rather than grants, with the student receiving wages and benefits in return for work. Some assistantships are supplemented with tuition waivers with the amount of tuition waived proportional to the number of hours worked. For example, the University of Minnesota College of Pharmacy Web site provides the following financial aid information for graduate students:

> "Virtually all graduate students in pharmaceutics receive financial assistance in the form of fellowships, teaching assistantships and research assistantships. Most first-year students are teaching assistants. All teaching and research assistants receive tuition waivers (any student with a quarter-time or greater appointment is considered a Minnesota resident for tuition purposes). As a result of this program, no pharmaceutics graduate student pays tuition.
>
> We also award graduate fellowships to high-achieving students. Fellowships are supported by the University, College of Pharmacy endowments and the pharmaceutical industry. Some fellowships are awarded through University-wide competitions, and their stipends vary. In some cases, fellowships may permit concurrent assistantships. As with TAs and RAs, fellowships also provide tuition waiver and health insurance. Some are restricted to U.S. citizens and permanent residents."

A second example is taken from University of Minnesota American Studies Graduate Program. Their Web site lists the following forms of graduate student financial assistance:

1. Graduate School Fellowships
2. Endowed Fellowships
3. Dissertation Fellowships
4. Other Fellowships
5. American Studies Grants
6. Graduate School Ph.D. Dissertation Special Grant
7. TA/Fellowship Funding
8. Research Assistantships

9. Teaching Assistantships, Tuition Waivers and Resident Rates
10. Federal Loans and Grants

While these examples are typical of the forms of financial assistance available to graduate students at the University of Minnesota, the amount and kind of financial assistance will vary from department to department, depending on endowments and funding.

Current State Programs in Minnesota

For the most part, Minnesota has chosen not to link financial aid to workforce development but instead allow students to make education and career choices guided by personal preferences and labor market conditions. Neither the State Grant Program nor the Department of Employment and Economic Development fund any graduate or first professional financial aid programs linked to workforce development.

Minnesota's programs that do exist are concentrated in the Department of Health and fund healthcare-related occupations and professions, which include some graduate-level work in medicine, dentistry, pharmacy and nursing. The following is a list of these programs:

1. Allied Health Care Tech Faculty Loan Forgiveness
2. Dentist Loan Forgiveness
3. Nurse Faculty Loan Forgiveness
4. Nurse Loan Forgiveness
5. Rural Midlevel Practitioner Loan Forgiveness
6. Rural Pharmacist Loan Forgiveness
7. State Loan Repayment
8. Urban Physician Loan Forgiveness

The Department of Health Loan Forgiveness Programs were evaluated by an outside evaluator and the results published in a report, *Bringing Health Care to the Heartland: An Evaluation of Minnesota's Loan Forgiveness Programs for Select Health Care Occupations*, April 2007. The evaluation found that:

- After almost 17 years of operation and growing from an annual state appropriation of $320,000 to $1.295 million in 2007, the Minnesota Loan Forgiveness Programs have also served over 300 health care facilities and educational institutions from throughout the state. In the past seven years, Minnesota has invested a total of $7.789 million in the Loan Forgiveness Programs.

- The Loan Forgiveness Programs were effective in getting health care practitioners into high need locations.

- A majority of health care practitioners who complete their service obligation remain in similar practice settings in Minnesota to continue their practice.

- The Loan Forgiveness Programs examined in this report and administered by the Minnesota Department of Health are successfully meeting their program goals and increasing the number of health care providers and educators in rural Minnesota and specialty locations.

Findings and Considerations

Mechanically, the existing structure of the Minnesota State Grant Program could be applied to graduate and first professional students. A recognized amount of tuition and fees could be established. A living and miscellaneous expense allowance could be set as well. These could be the same as used currently for undergraduates or set at different levels for graduate students. The FAFSA and Federal Need Analysis is designed to accommodate all students. Adjustments to the results could be made as done currently for applicants for Minnesota State Grants. As outlined in the next section, many of the issues of relating financial aid to workforce needs are not answered by the structure of the Minnesota State Grant Program

A number of general considerations suggest themselves regarding the feasibility of aid programs for first professional and graduate students.

Proposed programs should be developed in the context of and consistent with state education, financial aid, economic and workforce development policies. Significant background information and data are required before making a decision to establish an incentive program**.** In particular, satisfactory answers must be provided to the following questions:

1. Have potential employers been systematically contacted to determine the extent of the alleged labor shortage? Very often predicted labor shortages based on weak or anecdotal evidence turn out to be wrong. Given the difficulty of accurately predicting workforce shortages, close coordination with potential employers is critical for the success of any WCFA program. (Veneri, 1999)

2. What are the reasons for the labor shortage? Why are students not attracted to the target career or discipline? The problem may be low pay, undesirable working conditions or lack of career advancement. In these cases grants or scholarships may not be effective, or these disadvantages may cause students to change their minds upon graduation.

3. Who is the target market for the program? What students or potential students are the programs designed to attract? Can this target group meet the academic requirements of the training program?

4. How will the program be marketed? Some WCFA programs fail due to insufficient or ineffective marketing. For example, few teachers are aware of loan forgiveness programs for teachers that are part of the federal Stafford and Perkins loan programs.

5. Are the incentives (and penalties for non-compliance) sufficient to attract and retain students or employees? For example, given the widespread availability of student loans,

will the promise of a loan, without loan forgiveness or repayment, be enough to attract students?

6. Is the proposed funding enough to make a difference? For example, last year the Department of Health was able to fund loan forgiveness for only seven pharmacists, even though many more students had qualified and applied. When few people receive the benefit, students may not respond to the program's incentives.

7. Do the target academic or training programs produce graduates with the training and skills that the employers want and are willing to hire? Not only must the funding agency work closely with potential employers, but educational institutions must also work closely with employers to insure that their graduates are meeting the needs of the employers.

8. Is there state-level coordination of education and financial aid policy with state workforce development policy? The respective policy goals of these two sectors of state government are not necessarily consistent with each other, and care must be taken to insure that programs designed to implement one set of policy goals does not interfere with the attainment of the other.

9. Finally, are there ways of alleviating the labor shortage other than WCFA that may be more effective? Are there other ways of providing student financial aid that better meet student needs and state financial aid policy goals?

10. The "strings attached" Service Payback Model incorporating some form of loan forgiveness or loan repayment is the most common form of these programs. Given the lower administrative overhead, a loan repayment program is preferable to a loan forgiveness program. While increasingly popular, there is little research or data providing evidence either for or against the effectiveness of the programs.

11. Minnesota's programs are designed to provide health care professionals for rural areas, are administered by the Minnesota Department of Health, and were recently evaluated as effective. These programs should be reviewed periodically to determine the effectiveness of and continuing need for the programs.

12. The programs should be created with a sunset provision, to insure that they do not continue beyond their useful life. These programs are often established as ad hoc solutions to perceived labor shortages, without considering these "solutions" in the larger context of state financial aid, education and workforce policy.

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Analysis of Ability to Pay

Minnesota State Grant Review

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Table of Contents

Dr. Gerald Setter died unexpectedly in 2008 after completing most of the in-depth analysis reflected in this report. The Office of Higher Education is grateful for his thoughtful insight, hard work and nearly 30-year commitment to public service.

Introduction

This report provides analysis of how the financial expectations placed on families within the State Grant model compare to the families' ability to pay. From this analysis, policymakers gain information that may help them to make determinations about whether expectations of families, at varying income levels, are reasonable.

The report reviews the Federal Need Analysis, which is used as the starting point for determining the Assigned Family Responsibilities within the Minnesota State Grant program. The results of the Federal Need Analysis are a dollar amount a family is expected to pay for postsecondary education. Variables used in the Federal Need Analysis are described and applied to family examples.

In addition, the report compares the Minnesota State Grant program's Assigned Family Responsibilities to other government activities that use alternative measures of ability to pay. The Minnesota State Grant program's Assigned Family Responsibilities are intended to reflect a family's ability to pay for postsecondary education. In this report, the State Grant program's Assigned Family Responsibilities are compared to the following programs, all of which incorporate ability to pay measures.

- Federal and state individual income taxes
- Minnesota's property tax refund program
- Minnesota's reimbursement for care of children with disabilities
- Minnesota's Child Care Sliding Fee program

Each analysis reveals a slightly different approach to defining and family's ability to pay. Taken together, they provide context for the Assigned Family Responsibilities in the Minnesota State Grant program.

Family Share Is Based on Federal Need Analysis

The State Grant program assigns the price of attendance to three parties: the student, the family and the taxpayer, if necessary. Students are currently assigned 46 percent of the total price of attendance. Next, financial responsibility falls to families, based on a measure of their ability to pay. The results of the Federal Need Analysis are used as a starting point in assigning the family share.

Families are defined as follows in determining the Minnesota State Grant program's Assigned Family Responsibilities.

1. Parents of dependent students
2. Students who are independent and married, with children
3. Students who are independent and not married, with children
4. Students who are independent and married, with no children
5. Students who are independent and not married, with no children

Assigned Family Responsibilities are determined though the assessment of family income and net worth, with adjustments to income and for family size. Families first report income and net worth to the federal government on the Free Application for Federal Student Financial Aid (FAFSA). The federal government uses an assessment tool called the Federal Need Analysis to determine an amount a family is expected to pay for postsecondary education. Assessment rates inside the Federal Need Analysis are similar for families with children (those under definitions 1-3 in the above list) and higher for families who do not have children (those under definitions 4 and 5 in the above list).

Minnesota uses the definitions and rates in the Federal Need Analysis, but does not accept the dollar amount results in determining the Minnesota State Grant program's Assigned Family Responsibilities. For Fiscal Year 2008, Minnesota assigned 96 percent of the federal results to parents of dependent students, 86 percent of the federal results to independent students with dependents, and 68 percent to independent students with no dependents other than a spouse. The Minnesota Legislature established these lower percentages as the Federal Need Analysis results for families came to be viewed as too high.

Ultimately, the State Grant expects some families to cover the full Assigned Family/Taxpayer Responsibility, even after Minnesota adjustments. For other families, the expected dollar amount covers only some of the Assigned Family/Taxpayer Responsibilities and the remainder is paid for with federal Pell grants first and with Minnesota State Grants if necessary. Finally, some families are not expected to contribute anything. For these families, the Assigned Family/Taxpayer Responsibilities are the responsibility of taxpayers through the federal Pell grant and the Minnesota State Grant if necessary.

Fiscal Year 2007 data and Minnesota State Grant program parameters served as the basis for this analysis.

Dependent Students and Their Families

The results of the Federal Need Analysis are used as a starting point to determine Assigned Family Responsibilities in the Minnesota State Grant program for parents of dependent students. The Federal Need Analysis starts with federal adjusted gross income.

The Federal Need Analysis adds a wide range of untaxed income, including welfare payments and interest on tax-exempt bonds, to adjusted gross income. The analysis subtracts a number of deductions from total income, such as taxes paid and employee expenses. The examples in this report include the following deductions.

- Federal income taxes paid, which were estimated assuming the adjusted gross income shown on the first line for a family size of four with the federal standard deduction.

- Social Security taxes, which were based on earned income equal to adjusted gross income;

- State and other taxes, which were set at the Federal Need Analysis standard percentage of total income; and

- An employment expense allowance of $3,100, which assumes both parents were employed and both earned at least $3,500 during the year.

The Federal Need Analysis also includes an income protection allowance. Amounts used in the examples presented here were determined from the income protection allowance as shown in Table 2.

Total income minus total deductions determines available income in the Federal Need Analysis. Available income is the base measure of income used in the Federal Need Analysis.

In addition to income, the Federal Need Analysis assesses family net worth. Certain assets are excluded, such as personal residences. Not all other assets included on families' balance sheets are counted. If an asset is not included in the Federal Need Analysis, the corresponding liabilities are not counted. Net worth was assumed to equal Adjusted Gross Income in the examples in this paper.

Adjusted net worth is determined by subtracting an educational savings and asset protection Allowance from net worth. The educational savings and asset protection allowance is based on the age of the older parent.

The Federal Need Analysis adds available income and the contribution from assets to determine an adjusted available income amount. This amount is multiplied by a set of assessment rates to determine what the federal government calls the Expected Family Contribution. The assessment rates are shown on Table 3.

About Table 1

Federal Need Analysis calculations for parents of dependent students are shown on Table 1, titled "Calculation of Assigned Family Responsibilities for Parents of Dependent Students, Three Examples for Fiscal Year 2007". Three family examples are shown. The examples vary by federal adjusted gross income, set at the 20th, 40th and 60th percentile for families in the United States.[1] It was assumed each family contributed five percent of adjusted gross income to a 401k plan and this amount was added to adjusted gross income to determine total income in the examples.

For purposes of these examples, it was assumed the older parent was age 45 with an educational savings and asset protection allowance of $44,300. The Federal Need Analysis specifies an asset conversion rate of 12 percent applied to adjusted net worth. The result is a contribution from assets amount, as shown on Table 1.

Assigned Family Responsibilities used in the Minnesota State Grant program in Fiscal Year 2007 were the lesser of the Expected Parental Contribution and the Assigned Family/Taxpayer Responsibilities at the institution the student attended. Five Assigned Family Responsibilities, based on the average Recognized Prices of Attendance at different institution types, are shown on Table 1. The examples highlight two characteristics of Assigned Family Responsibilities:[2]

- Assigned Family Responsibilities increased as adjusted available income and expected parental contributions increased, up to the full Assigned Family Responsibilities amount.

- For the highest income family, Family 3, Assigned Family Responsibility was dependent on the institution attended, not family income, because the Minnesota State Grant program's Recognized Price of Attendance is constrained in law.

[1] U.S. Census Bureau Table F-1. Income Limits for Each Fifth and Top 5 Percent of Families (All Races): 1947 to 2005 [accessed at www.census.gov/hhes/www/income/histinc/f01ar.html (August 22, 2007)]. For 2006 and 2007, it was assumed all values would increase by two percent per year.

[2] See the section on Family-Taxpayer Shares and Recognized Prices in the *Overview of the Design for Shared Responsibility* paper for more detail.

Table 1: Calculation of Assigned Family Responsibilities for Parents of Dependent Students, Three Examples for Fiscal Year 2007

Item		Family 1	Family 2	Family 3
Adjusted Gross Income	Assumed the 20th, 40th & 60th percentile incomes as reported by U.S. Census Bureau	$26,651	$46,840	$71,063
Untaxed Income	Assumed employee contributions to 401 k (= 5% of AGI)	$1,333	$2,342	$3,553
Total Income		$27,983	$49,182	$74,617
Federal Income Taxes	Assumed family of 4 used form 1040 and standard allowance for deductions	$315	$2,718	$6,352
Social Security Taxes	7.65% of earned income (Earned income assumed to be AGI in this example)	$2,141	$3,762	$5,708
State and Other Taxes	Specified as 5% of Income if income $15,000 or more; otherwise 6% of income by the Federal Need Analysis.	$1,399	$2,459	$3,731
Employee Expense Allowance	Specified as $3,100 or 35% of earned income for the parent with the lowest income by the Federal Need Analysis; assumed $3,100 in this example.	$3,100	$3,100	$3,100
Income Protection Allowance	From Income Protection Allowance Table on next page	$22,200	$22,200	$22,200
Total Deductions		$29,155	$34,240	$41,091
Available Income	Total Income - Total Deductions	$0	$14,942	$33,526
Net Worth	Assumed equal to AGI	$26,651	$46,840	$71,063
Educational Savings and Asset Protection Allowance	Assumed oldest parent is 45	$44,300	$44,300	$44,300
Adjusted Net Worth	Net Worth - Educational Savings and Asset Protection Allowance	$0	$2,540	$26,763
Contribution from Assets	12% of Adjusted Net Worth	$0	$305	$3,212

Table 1: Calculation of Assigned Family Responsibilities for Parents of Dependent Students, Three Examples for Fiscal Year 2007

Item		Family 1	Family 2	Family 3
Adjusted Available Income	Available Income + Contribution from Assets	$0	$15,247	$36,737
Expected Parental Contribution	From Assessment of Adjusted Available Income Table	$0	$3,425	$16,785
Assigned Family Responsibility	Lesser of Expected Parental Contribution or Family-Taxpayer Share			
Attending Minnesota State College	Family-Taxpayer Share = $5,571	$0	$3,425	$5,571
Attending Minnesota State University	Family-Taxpayer Share = $6,491	$0	$3,425	$6,491
Attending University of Minnesota	Family-Taxpayer Share = $8,350	$0	$3,425	$8,350
Attending Private 4-Year Institution	Family-Taxpayer Share = $7,891	$0	$3,425	$7,891
Attending Private 2-Year Institution	Family-Taxpayer Share = $6,704	$0	$3,425	$6,704

Table 2: Income Protection Allowance

Number in Parents' Household, Including Student	Number of College Students in Household				
	1	2	3	4	5
2	$14,430	$11,960			
3	$17,970	$15,520	$13,050		
4	$22,200	$19,730	$17,270	$14,800	
5	$26,190	$23,720	$21,270	$18,800	$16,340
6	$30,640	$28,170	$25,710	$23,240	$20,790

Note: For each additional household member, add $3,460.

For each additional college student (except parents), subtract $2,460.

Table 3: Assessment of Adjusted Available Income

If Parents' Adjusted Available Income			
More Than:	**And Less Than:**	**Fixed Amount**	**Rate**
	$(3,410)	$(750)	
$(3,409)	$12,900	$0	22%
$12,901	$16,200	$2,838	25%
$16,201	$19,500	$3,663	29%
$19,501	$22,800	$4,620	34%
$22,801	$26,100	$5,742	40%
$26,101		$7,062	47%

Unmarried Independent Students with No Dependents

The analysis of Assigned Family Responsibilities for unmarried independent students with no dependents follows the format used in the previous analysis for parents of dependent students. Minnesota conforms to the definitions, allowances and assessment rates used in the Federal Need Analysis in calculating Assigned Family Responsibilities for unmarried independent students with no dependents.

About Table 4

Adjusted gross income amounts were set at $10,000, $20,000 and $30,000 in the examples shown on Table 4.

In calculating federal individual income tax liabilities, it was assumed the student had:

- one exemption,
- no untaxed income, and
- other deductions as defined in the Federal Need Analysis.

Net worth was assumed to be $10,000. The Federal Need Analysis assessed net worth at 35 percent and Available Income at 50 percent in Fiscal Year 2007. The Minnesota Adjustment for unmarried students with no dependents was 72 percent of the results of the Federal Need Analysis, as shown on Table 5.

Assigned Family Responsibilities are the lesser of the Minnesota Adjusted Federal Need Analysis result and the Assigned Family/Taxpayer Responsibility. The examples in Table 4 highlight two characteristics of Assigned Family Responsibilities:[3]

- For students 1 and 2, those with the lower incomes, their Assigned Family Responsibilities increased with income.

- For student 3, at a higher income, the resulting Assigned Family Responsibility depended on the institution attended, not the student's income, because the Minnesota State Grant program's Recognized Price of Attendance is constrained in law.

[3] See the section on Family-Taxpayer Shares and Recognized Prices in the *Overview of the Design for Shared Responsibility* paper for more detail.

Table 4: Calculation of Assigned Family Responsibilities for Unmarried independent Students with No Dependents, Three Examples for Fiscal Year 2007

Item	Assumption	Student 1	Student 2	Student 3
Adjusted Gross Income	Assumed for these examples	$10,000	$20,000	$30,000
Untaxed Income		$0	$0	$0
Total Income		$10,000	$20,000	$30,000
Federal Income Taxes	Assumed filer used form 1040 and standard allowance for deductions	$155	$1,341	$2,841
Social Security Taxes	7.65% of earned income (Earned income assumed to be AGI in this example)	$734	$1,499	$2,264
State and Other Taxes	Specified as 4% of Income by the Federal Need Analysis.	$400	$800	$1,200
Income Protection Allowance	Specified by the Federal Need Analysis	$5,790	$5,790	$5,790
Total Deductions		$7,079	$9,431	$12,096
Available Income	Total Income - Total Deductions	$2,921	$10,569	$17,904
Net Worth	Assumed for these examples	$10,000	$10,000	$10,000
Expected Student Contribution x Minnesota Adjustment	(50% of Available Income + 35% of Net Worth) x Minnesota Adjustment [See next table]	$3,571	$6,325	$8,966
Assigned Family Responsibility	Lesser of Expected Student Contribution x Minnesota Adjustment or Family-Taxpayer Share			
Attending Minnesota State College	Family-Taxpayer Share = $5,571	$3,571	$5,571	$5,571
Attending Minnesota State University	Family-Taxpayer Share = $6,491	$3,571	$6,325	$6,491
Attending University of Minnesota	Family-Taxpayer Share = $8,350	$3,571	$6,325	$8,350
Attending Private 4-Year Institution	Family-Taxpayer Share = $7,891	$3,571	$6,325	$7,891
Attending Private 2-Year Institution	Family-Taxpayer Share = $6,704	$3,571	$6,325	$6,704

Table 5: Minnesota Adjustments to the Results of the Federal Need Analysis

Household Status	Fiscal Year 1997	Fiscal Year 1998	Fiscal Year 1999	Fiscal Year 2000	Fiscal Year 2001	Fiscal Year 2002	Fiscal Year 2003	Fiscal Year 2004	Fiscal Year 2005	Fiscal Year 2006	Fiscal Year 2007
Married with Dependents Other than Spouse	100%	100%	100%	100%	100%	90%	90%	90%	90%	90%	90%
Unmarried with Dependents	100%	100%	100%	100%	100%	90%	90%	90%	90%	90%	90%
Married with No Dependents Other than Spouse	100%	80%	80%	80%	80%	72%	72%	72%	72%	72%	72%
Unmarried with No Dependents	100%	80%	80%	80%	80%	72%	72%	72%	72%	72%	72%

Assigned Family Responsibilities Compared to Federal and Minnesota Individual Income Tax Liabilities

This section compares Assigned Family Responsibilities with individual income tax liabilities as measures of ability to pay. Assigned Family Responsibilities in the Minnesota State Grant program are payment expectations based on income and net worth as described in the previous section. Assigned Family Responsibilities are a measure of a family's ability-to-pay for postsecondary education, derived from the results of the Federal Need Analysis and Minnesota's adjustments.

Individual income tax liabilities are government-imposed financial obligations. Federal and state individual income systems presume a tax filer's ability to pay his or her financial obligation based on income.

Dependent Students and Their Families

Federal and Minnesota individual income tax liabilities calculated for this analysis assumed the following:

- two parent household filing jointly with two children claimed as dependents,
- a standard deduction,
- no alternative minimum tax liability, and
- tax rates for tax years 1995, 1998, 2001, 2004 and 2007.[4]

Federal and Minnesota individual income tax burdens were calculated as the ratio of tax liability to adjusted gross income for each income group shown on the charts on page 15.

The results show tax burdens increased continuously as incomes increased for federal and Minnesota individual income taxes. In the examples, both tax systems were progressive: as income increased, tax liabilities as a percent of income increased. Both tax systems presumed a tax filer's ability to pay increased as income increased.

Federal individual income tax burdens decreased between 1995 and 2007. Minnesota individual income tax burdens also decreased, but to a lesser extent, as shown on the charts on page16 and 17.

Similar to tax burdens, Assigned Family Efforts are the ratio of Minnesota State Grant program Assigned Family Responsibilities to adjusted gross income. Assigned Family Efforts for typical families of dependent student attending the University of Minnesota in Fiscal Year 2007 are shown on the lower right side of page 16 and 17. As the chart indicates, Assigned Family Efforts

[4] At the time this paper was prepared, the general rates for federal and state taxes were known but those for calculation of federal Hope and Lifetime Tax Credits were not known so 2006 rates were used for 2007.

have remained about the same, from 1995 to 2007, for families with up to $55,000 adjusted gross income. Assigned Family Efforts for other families have been increasing.

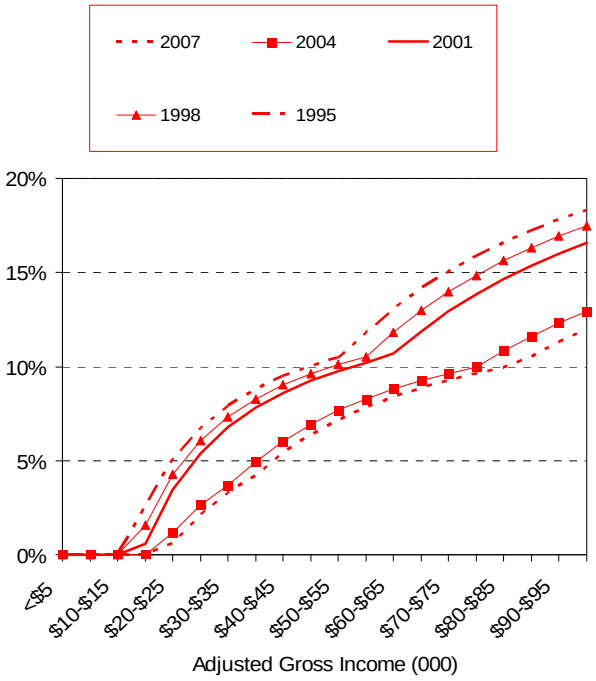
Individual income tax burdens and Assigned Family Efforts' are compared on the charts titled, "Comparisons of Federal and Minnesota Personal Income Tax Burdens and Assigned Family Efforts, Dependent Students and Their Families".

The charts demonstrate more clearly that as federal individual income tax burdens decreased, Assigned Family Efforts in the Minnesota State Grant program increased and shifted up the income spectrum. Assigned Family Efforts exceeded federal income tax burdens for families with dependent students at the University of Minnesota in the $30,000 to $80,000 federal adjusted gross income range in Fiscal Year 2007. The data suggest both the state of Minnesota and the federal government presumed families, with $30,000 to $80,000 adjusted gross income, had a greater ability to pay for postsecondary education in Fiscal Year 2007 than in previous years.

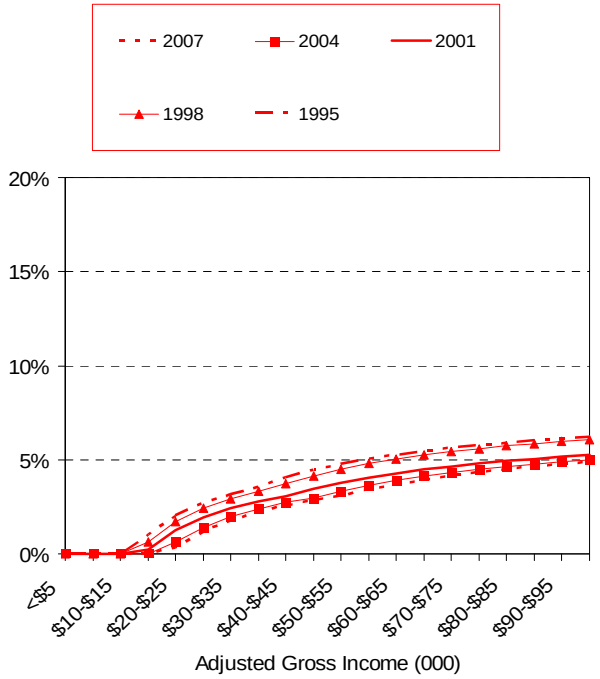
In addition, federal and state individual income tax burdens generally decreased for each of the four-quintile income levels identified on the charts on page 17. This tax burden decrease is in contrast to the Assigned Family Efforts increase shown on the chart on the lower right hand of page 17. Assigned Family Efforts for the two lower income groups, the 20th and 40th percentiles, increased, but increased less than for families in the 60th and 80th income percentiles. For families at the 60th income percentile, the effort increased about five percentage points, from five to 10 percent, and for families at the 80th income percentile, the effort increased two points, from five to seven percent.

Comparisons of Federal and Minnesota Personal Income Tax Burdens and Assigned Family Efforts for Families of Dependent Students

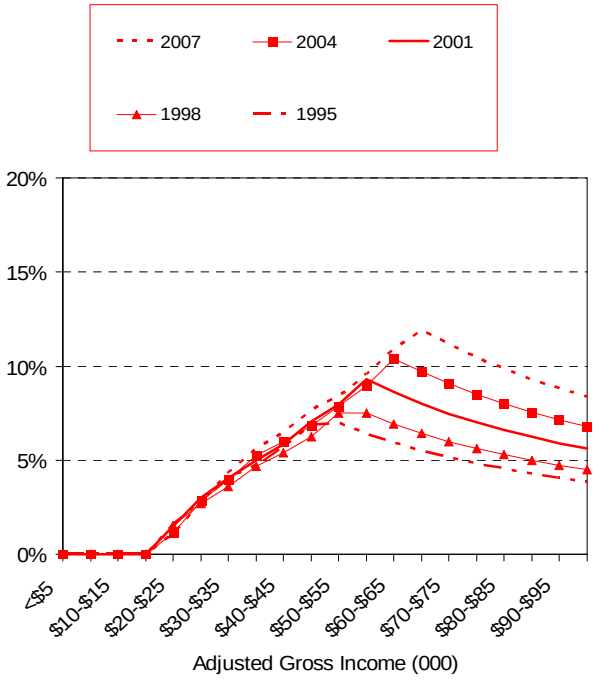
Federal Income Tax Burdens
Typical Families of Dependent Students



Minnesota Income Tax Burdens
Typical Families of Dependent Students

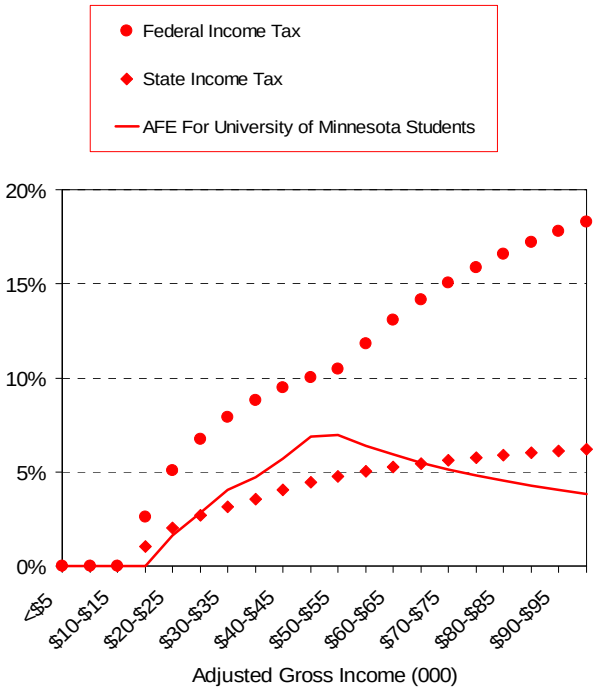


Assigned Family Efforts
Typical Families of Dependent Students Attending the University of Minnesota

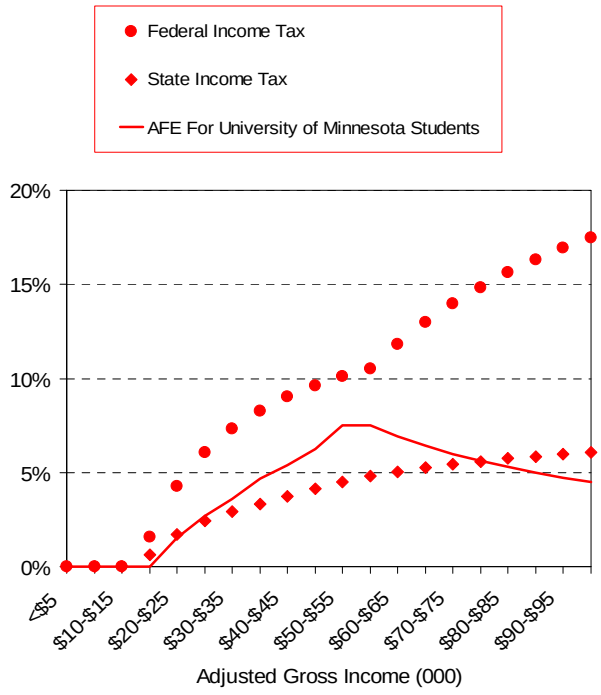


Comparisons of Federal and Minnesota Personal Income Tax Burdens and Assigned Family Efforts for Families of Dependent Students

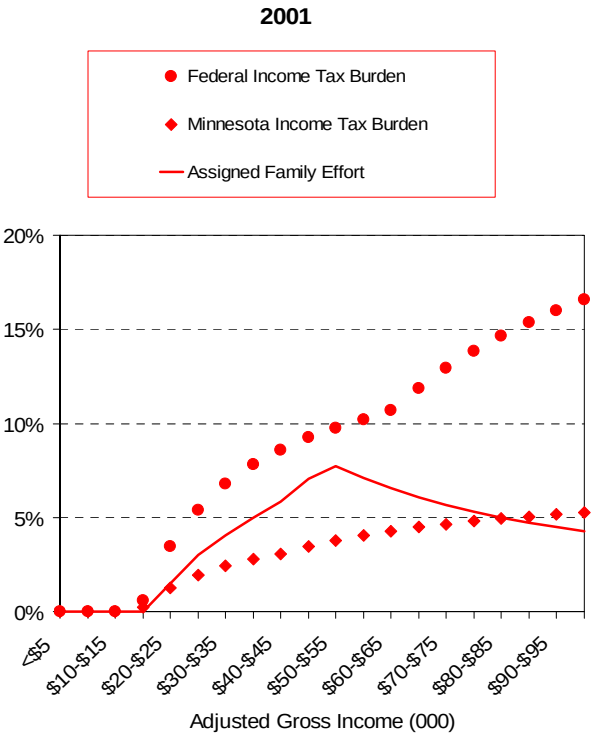
1995



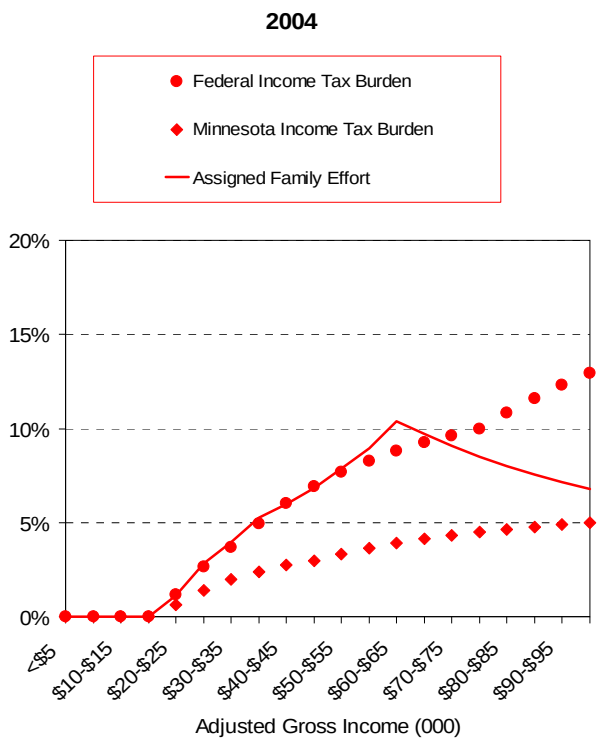
1998

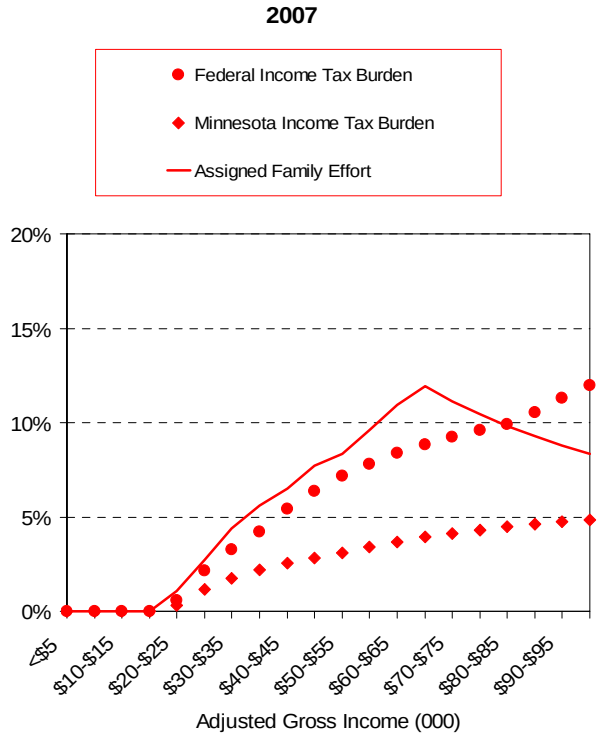


2001



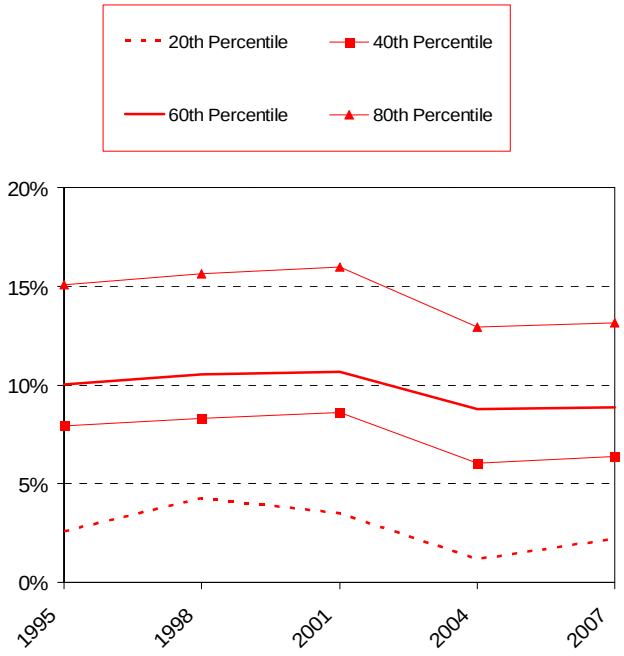
Comparisons of Federal and Minnesota Personal Income Tax Burdens and Assigned Family Efforts for Families of Dependent Students, Continued



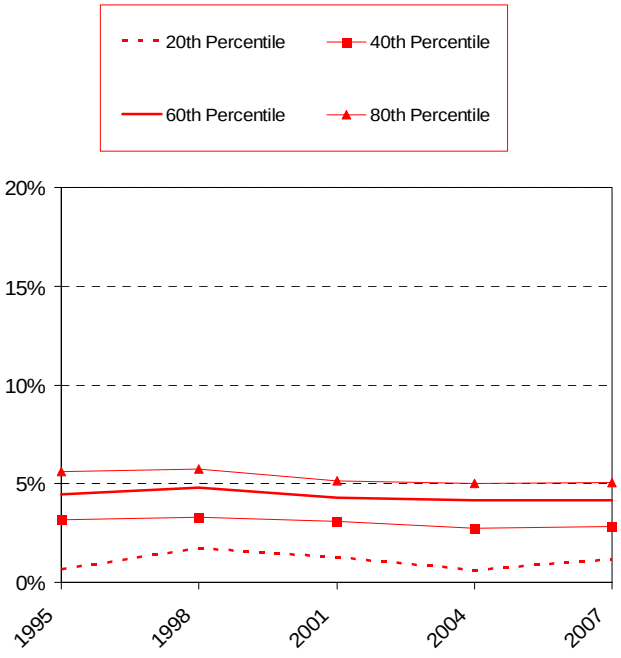


Comparisons of Federal and Minnesota Personal Income Tax Burdens and Assigned Family Efforts for Families of Dependent Students

Federal Tax Burdens

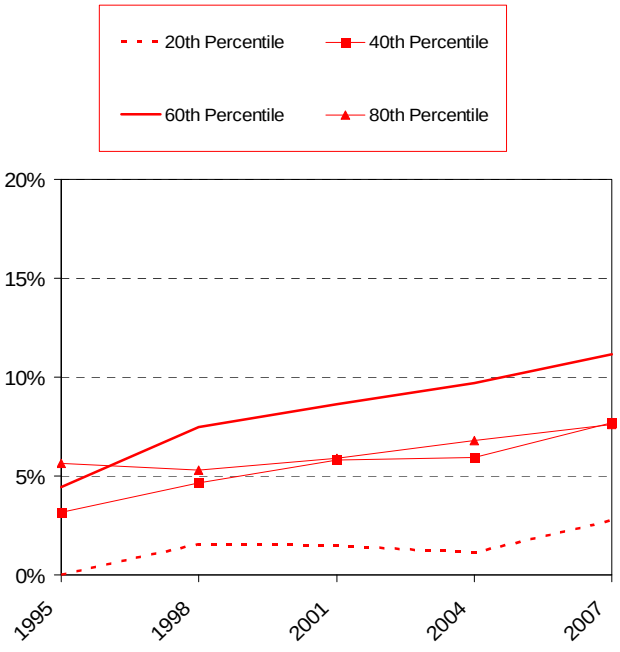


State Tax Burdens



Assigned Family Efforts

Typical Dependent Students Attending the University of Minnesota



Unmarried Independent Students with No Dependents

The comparative analysis in this section for unmarried independent students with no dependents follows the format of the previous analysis for parents of dependent students.

The income tax liabilities calculated in this section assumed

- a single filer claiming self as an exemption,
- a standard deduction, and
- tax rates for tax years 1998, 2001 and 2004.

Tax burdens for both federal and Minnesota individual income taxes were calculated as the ratio of tax liability to adjusted gross income for each income group.

Tax burdens increased continuously as incomes increased for both federal and state taxes, as shown on page 20. Again, both tax systems were progressive in these examples: as income increased, tax liabilities as a percent of income increased.

Federal individual income tax burdens decreased between 1998 and 2004. Minnesota individual income tax burdens decreased, but less so.

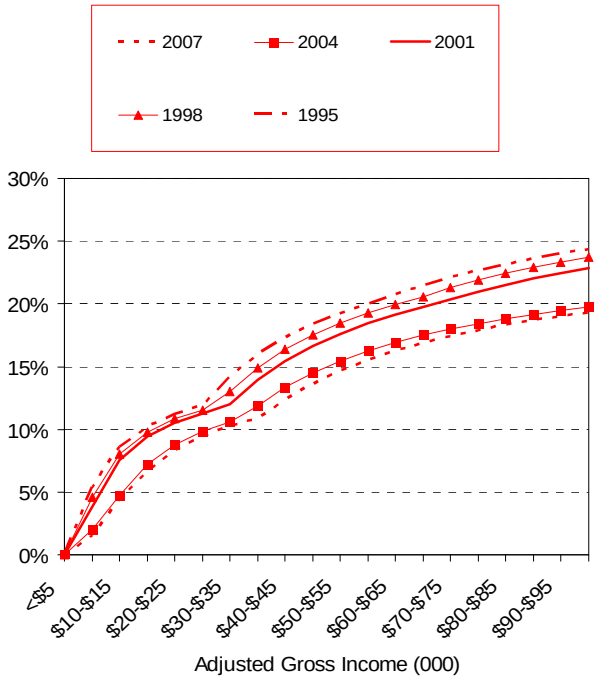
Assigned Family Efforts are shown on the lower right hand chart on page 20. The Maximum Assigned Family Efforts for typical unmarried independent students with no dependents attending the University of Minnesota in Fiscal Year 2007 were at adjusted gross incomes of $20,000 to $30,000.

A comparison of federal and state income tax burdens and Assigned Family Efforts for typical unmarried students with no dependents attending the University of Minnesota is shown on pages 21 and 22. The charts show modest decreases in tax burdens between 1995 and 2007 with maximum Assigned Family Effort shifting to the right on the income scale.

Comparisons of Federal and Minnesota Personal Income Tax Burdens and Assigned Family Effort

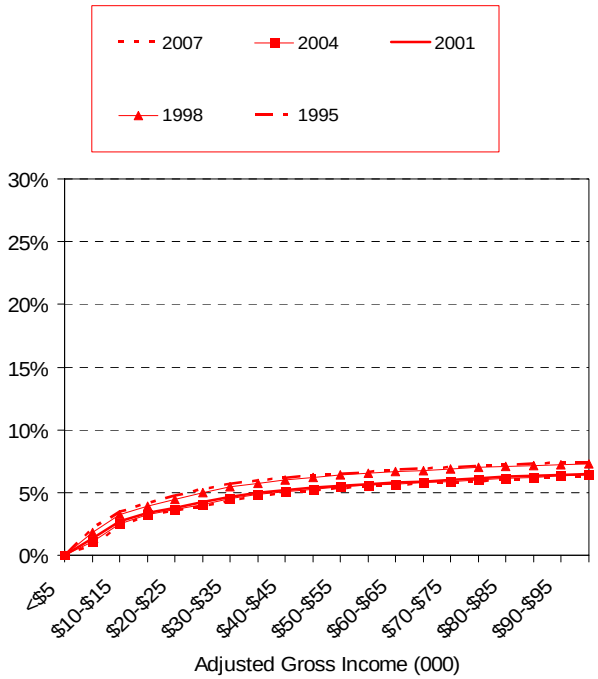
Federal Income Tax Burdens

Typical Unmarried Independent Students with No Dependents



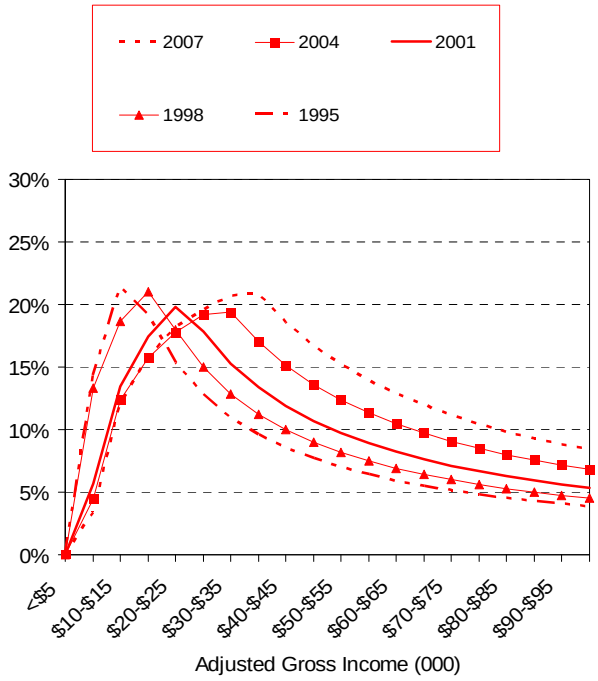
Minnesota Income Tax Burdens

Typical Unmarried Independent Students with No Dependents



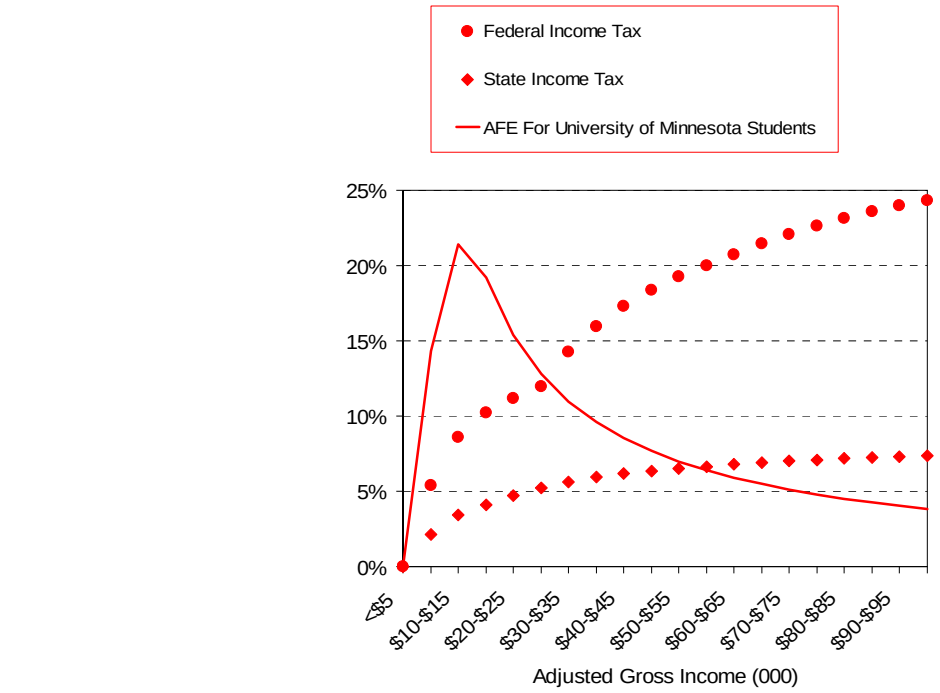
Assigned Family Efforts

Typical Unmarried Independent Students with No Dependents Attending the University of Minnesota

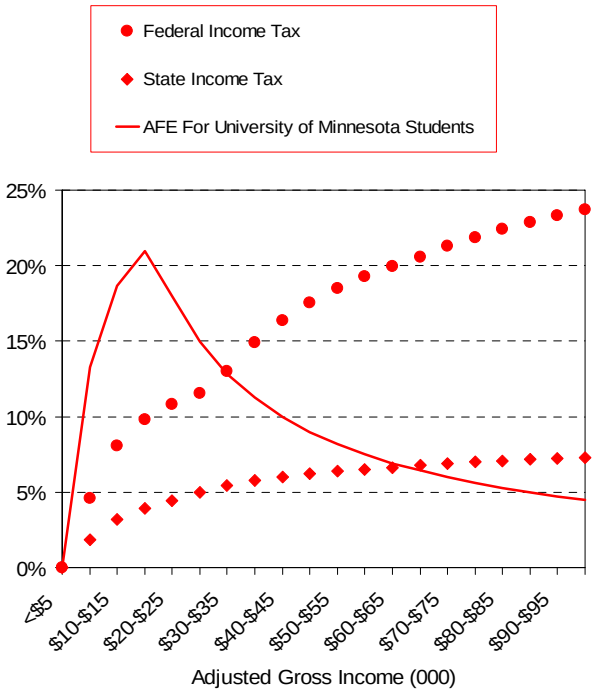


Comparisons of Federal and Minnesota Personal Income Tax Burdens and Assigned Family Efforts, Unmarried Independent Students with No Dependents

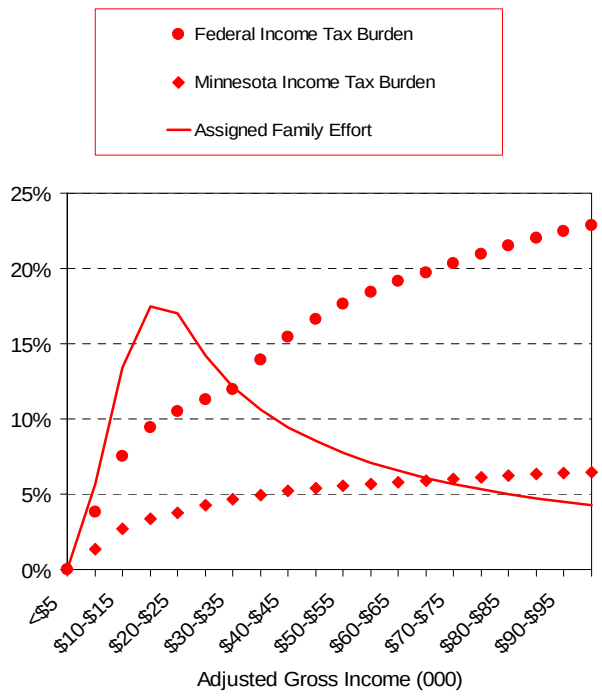
1995



1998

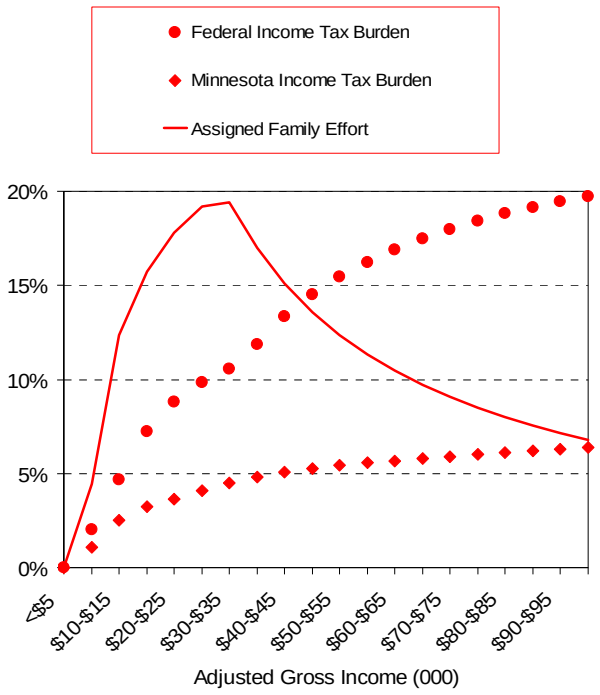


2001

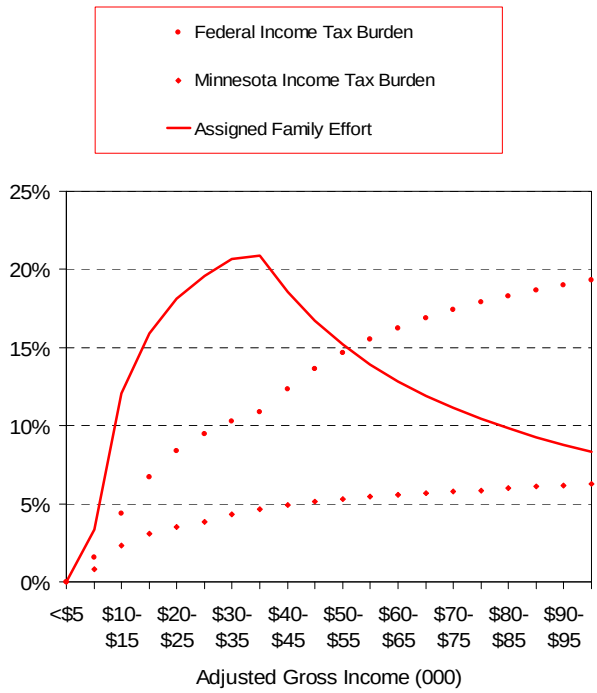


Comparisons of Federal and Minnesota Personal Income Tax Burdens and Assigned Family Efforts, Unmarried Independent Students with No Dependents, Continued

2004



2007



Assigned Family Responsibilities Compared to Minnesota Property Tax Refunds

Minnesota State Grant program Assigned Family Responsibilities are payment expectations based on income and net worth. Minnesota property taxes are tax liabilities based on the value of property. Homeowners are directly responsible for property taxes. Renters are indirectly responsible for property taxes through the rent they pay.

Minnesota adjusts property taxes to a homeowner or renter's income and family size through Minnesota property tax refunds. This section compares the Minnesota State Grant program's Assigned Family Responsibilities with what Assigned Family Responsibilities and Efforts would have been using the formula for calculating Minnesota property tax refunds.

Minnesota homeowners and renters qualify for property tax refunds based on their property tax liabilities, family sizes, and incomes. The property tax refund formula for homeowners was used here.[5] Assigned Family/Taxpayer Responsibilities in the Minnesota State Grant program were substituted for property tax liabilities in the property tax refund formula. Adjusted gross income was substituted for total income. The calculations assumed a family with two dependents, as defined by the property tax refund formula to obtain an alternative to Assigned Family Responsibilities for parents of dependent students.[6]

The Minnesota State Grant program results shown here as Assigned Family Effort, Assigned Family Responsibility and Assigned Taxpayer Responsibly were based on Fiscal Year 2007 parameters for parents of dependent students attending the University of Minnesota. These assignments were compared to what they would have been using the Minnesota property tax refund formula.

The resulting comparisons are shown page 24. Family Efforts resulting from Minnesota's property tax refund differ from Assigned Family Efforts in the Minnesota State Grant program. Minnesota State Grant program Family Efforts were zero up to about $25,000 adjusted gross income, progressively increased from $25,000 to $65,000 and regressively decreased at incomes above $65,000. In comparison, the Assigned Family Efforts resulting from the Minnesota property tax refund formula decreased across the entire income spectrum.

The Assigned Family Responsibility dollar amount using the Minnesota property tax refund formula was higher for lower income families and lower for higher income families when compared to the Minnesota State Grant program's Assigned Family Responsibility, as shown in the lower left hand chart on page 24. The converse was true for assignment to taxpayers as shown on the lower right chart on page 24.

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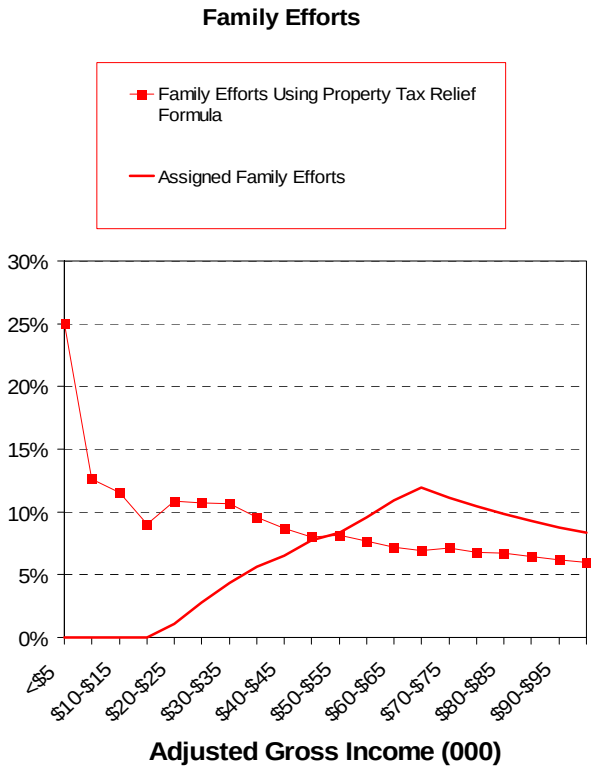
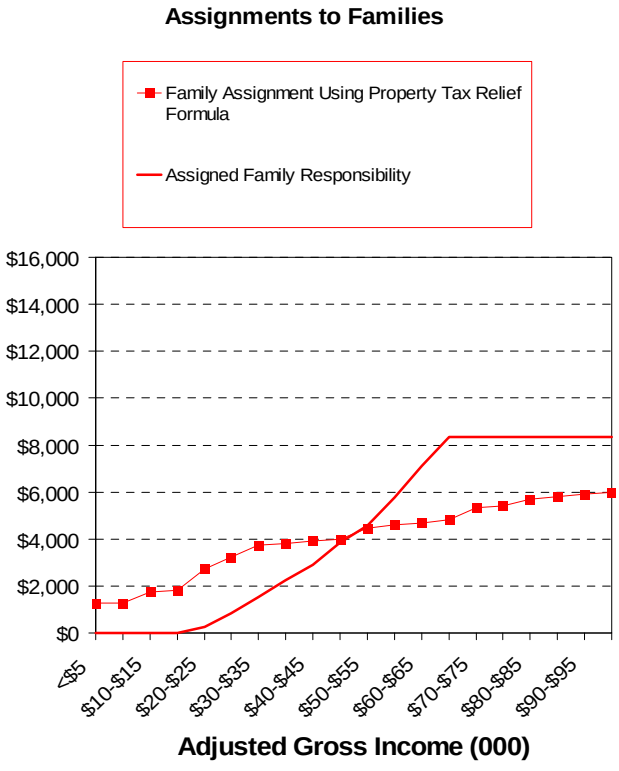
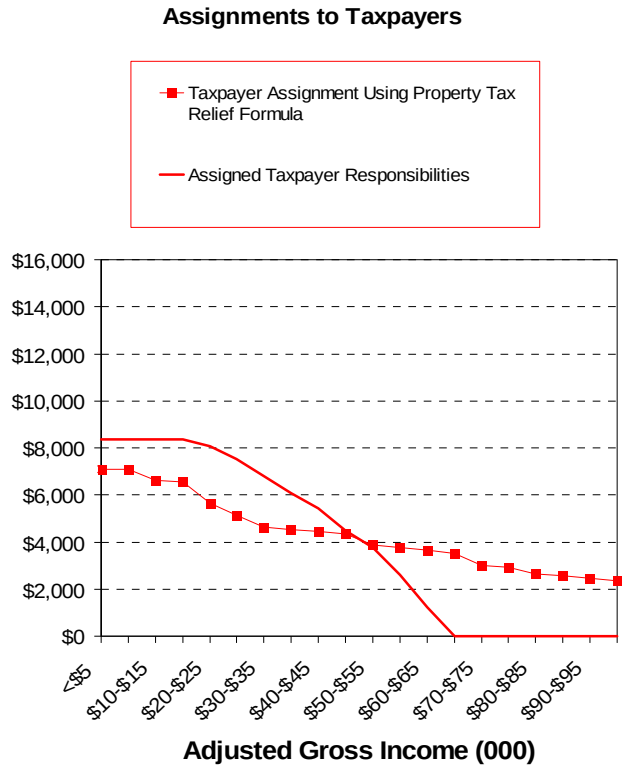
[5] Accessed at www.taxes.state.mn.us/prop_refund/algorithms/ho_algorithm_06.pdf (November 28, 2007).

[6] The maximum refund values in the formula were not used in this analysis.

Property Tax Refund







Assigned Family Responsibilities Compared to Minnesota's Payments for the Care of Disabled Children

Minnesota State Grant program Assigned Family Responsibilities are payment expectations based on income and net worth. Minnesota has a reimbursement program to help families with the costs associated with caring for disabled children. Families can qualify for reimbursements based on medical and care expenses, family sizes, and family incomes

Similar to the previous section, this section compares the Minnesota State Grant program's Assigned Family and Taxpayer Responsibilities and Assigned Family Efforts to the payment assignments based on the formula used in Minnesota's reimbursement for the care of disabled children.[7] The Minnesota State Grant program's Assigned Family/Taxpayer Responsibility was substituted for the costs of dependent care. Adjusted gross income was substituted for total income. A family size of four was assumed.

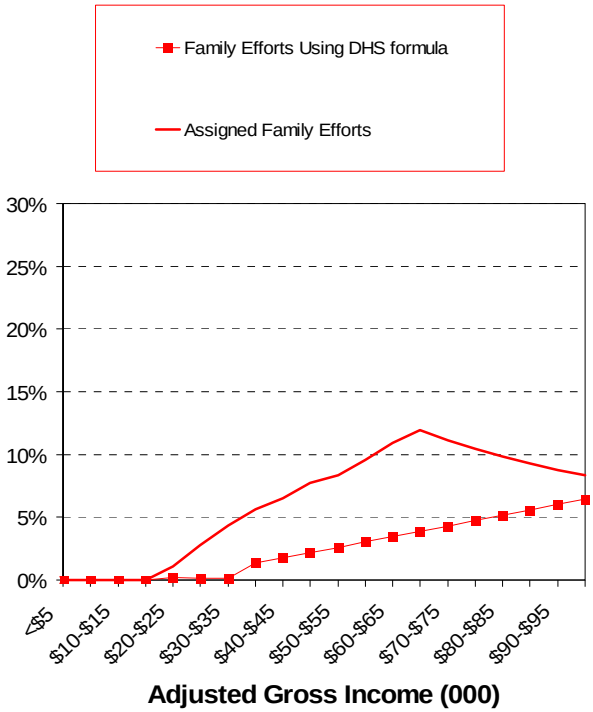
The Minnesota State Grant program results shown here as Assigned Family Effort, Assigned Family Responsibility and Assigned Taxpayer Responsibly were based on Fiscal Year 2007 parameters for parents of dependent students attending the University of Minnesota. These assignments were compared to what they would have been using the reimbursement for the care of disabled children and are shown on the following page.

Starting at about $20,000 adjusted gross income, the Assigned Family Efforts in the Minnesota State Grant program were higher when compared to the state's reimbursement program for care of disabled children. Similarly, the dollar amount assigned to families was higher and the dollar amount assigned to taxpayers was lower in the Minnesota State Grant program when compared to the results using the state's reimbursement for the care of disabled children formula, as shown on page 26.

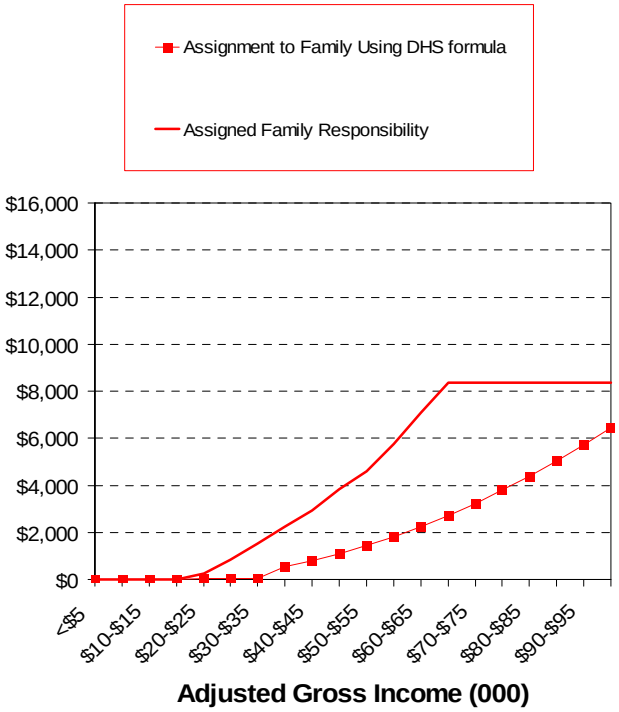
[7] Accessed at *Laws of Minnesota 2007*, Chapter 147, Article 2, Section 2.

Care of Disabled Children

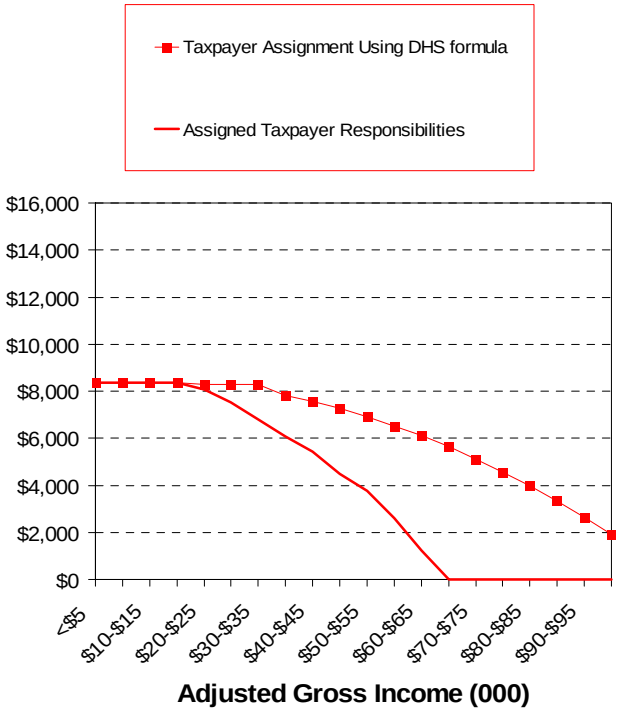
Family Efforts



Assignments to Families



Assignments to Taxpayers



Assigned Family Responsibilities Compared to Minnesota's Child Care Sliding Scale

Minnesota State Grant program Assigned Family Responsibilities are payment expectations based on income and net worth. Minnesota's Child Care Sliding Scale program reduces child care costs for some Minnesota families based on income.

Similar to the pervious section, this section compares the Minnesota State Grant program's Assigned Family and Taxpayer Responsibilities and Assigned Family Efforts to the payment assignments if Minnesota's formula used in the Child Care Sliding Scale program were used instead.[8]

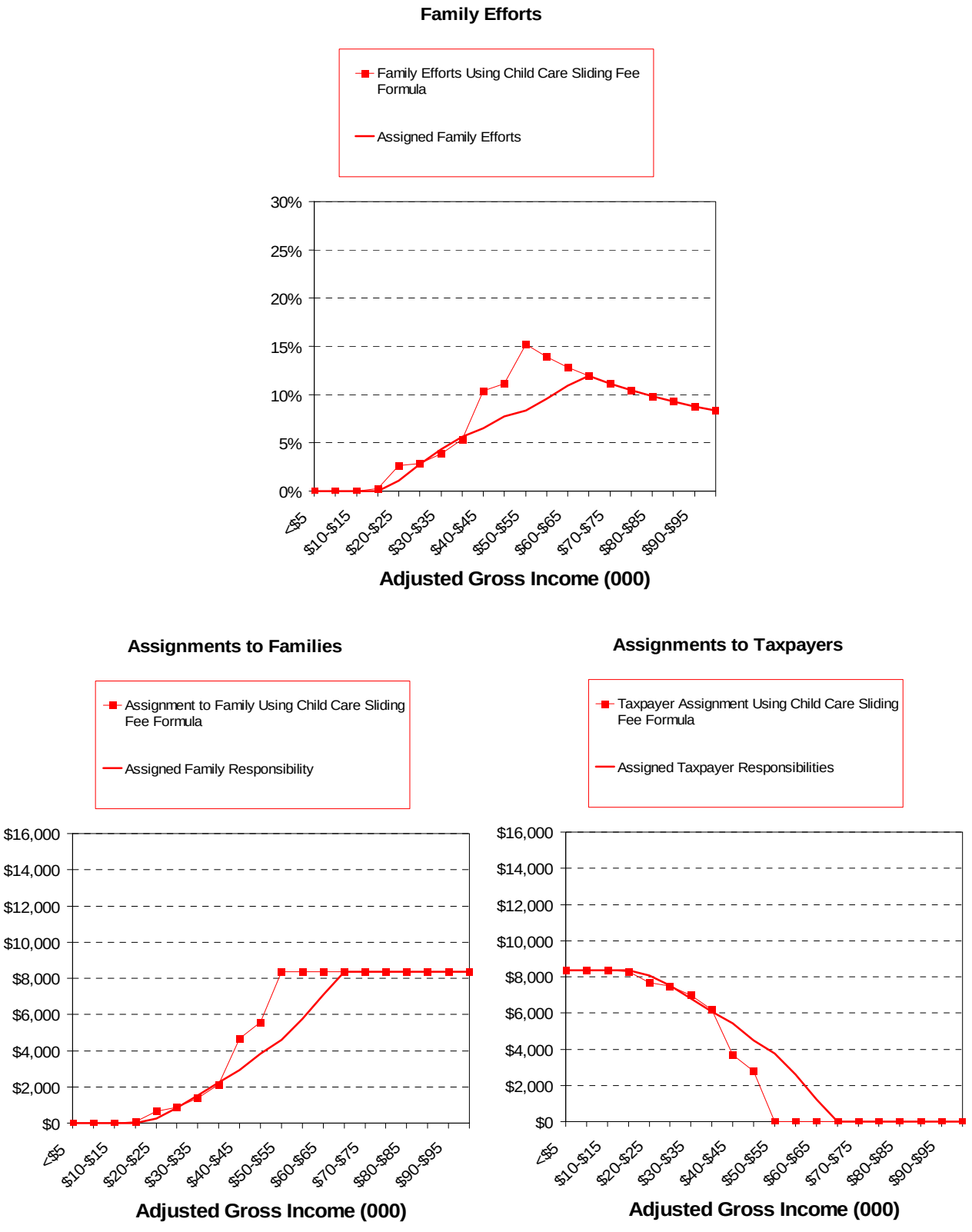
The Minnesota State Grant program's Assigned Family/Taxpayer Responsibility was substituted for child care costs. Adjusted gross income was substituted for total income. A family size of four was assumed.

The Minnesota State Grant program results shown here as Assigned Family Effort, Assigned Family Responsibility and Assigned Taxpayer Responsibly were based on Fiscal Year 2007 parameters for parents of dependent students attending the University of Minnesota. These assignments were compared to what they would have been using the Minnesota's Child Care Sliding Scale program.

The Assigned Family Efforts in the Minnesota State Grant program were similar to the resulting efforts using the Child Care Sliding Scale program parameters up to about $45,000 and again above $65,000 adjusted gross income. Between $45,000 and $65,000 adjusted gross income, family efforts were higher using the Child Care Sliding Scale program parameters. These results were reflected in the dollar amount assignments to families and taxpayers, as shown on the following page.

[8] Accessed at *Laws of Minnesota 2007*, Chapter 147, Article 2, Section 9.

Child Care Sliding Scale



Findings

The following highlight the results of comparing federal and Minnesota individual income tax liabilities and burdens to Assigned Family Responsibilities and Efforts. The following also highlight the results of substituting ability to pay measures from other government programs for the Minnesota State Grant program's Assigned Family Responsibilities and Efforts.

- Federal and Minnesota individual income tax burdens were progressive; as income increased, tax liabilities were a larger percent of income.

- Minnesota's property tax refund program tempered property tax regressivity, but property taxes remained overall regressive.

- The Minnesota State Grant program's Assigned Family Efforts, in comparison to federal and Minnesota individual income taxes and Minnesota's property tax refund program, were zero for families on the lowest end of the income spectrum, steeply progressive for moderate income families and regressive for families on the high end of the income spectrum.

- The Minnesota State Grant program's Assigned Family Efforts, starting at about $20,000 adjusted gross income, were higher when compared to the state's reimbursement program for care of disabled children.

- The Minnesota State Grant program's Assigned Family Responsibilities were higher and Assigned Taxpayer Responsibilities were lower when compared to the dollar amount results using the state's reimbursement formula for care of disabled children.

- The Minnesota State Grant program's Assigned Family Efforts were similar to the resulting efforts using the Child Care Sliding Scale program parameters up to about $45,000 and again above $65,000 adjusted gross income, but between $45,000 and $65,000 adjusted gross income, Assigned Family Efforts were higher using the Child Care Sliding Scale program parameters.

- The Minnesota State Grant program Assigned Family and Taxpayer Responsibilities were similar to the resulting dollar amounts using the Child Care Sliding Scale program up to about $45,000 and again above $65,000 adjusted gross income, but between $45,000 and $65,000 adjusted gross income, they were higher using the Child Care Sliding Scale program parameters.