Minnesota Office of Higher Education

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February 2008

Preliminary State Grant Review Summary

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***Dr. Gerald Setter died unexpectedly on January 14, 2008 after completing most of the in-depth analysis reflected in this preliminary report. The policy framework for the State Grant program, the Design for Shared Responsibility, has endured and served students effectively for 25 years and was, in part, the result of Jerry's work. The Office of Higher Education is grateful for Jerry's thoughtful insight, hard work and nearly 30-year commitment to public service.**

About the Minnesota Office of Higher Education

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

The Minnesota State Grant Program, which is administered by the agency, is a need-based tuition assistance program for Minnesota students. The agency oversees tuition reciprocity programs, a student loan program, Minnesota's 529 College Savings Program, licensing and an early awareness outreach initiative for youth. Through collaboration with systems and institutions, the agency assists in the development of the state's education technology infrastructure and shared library resources.

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Introduction

The Minnesota State Grant program is a need-based financial aid program to assist Minnesota residents attending public and private postsecondary institutions in Minnesota. The program, first established in 1973, has grown and changed over the years and currently awards approximately $145 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. While many states offer larger state financial aid programs, Minnesota's State Grant program ranks among the top state programs in the nation in terms of the the estimated need-based grant dollars awarded per full-time undergraduate student, according to the National Association of State Student Grant and Aid Programs.

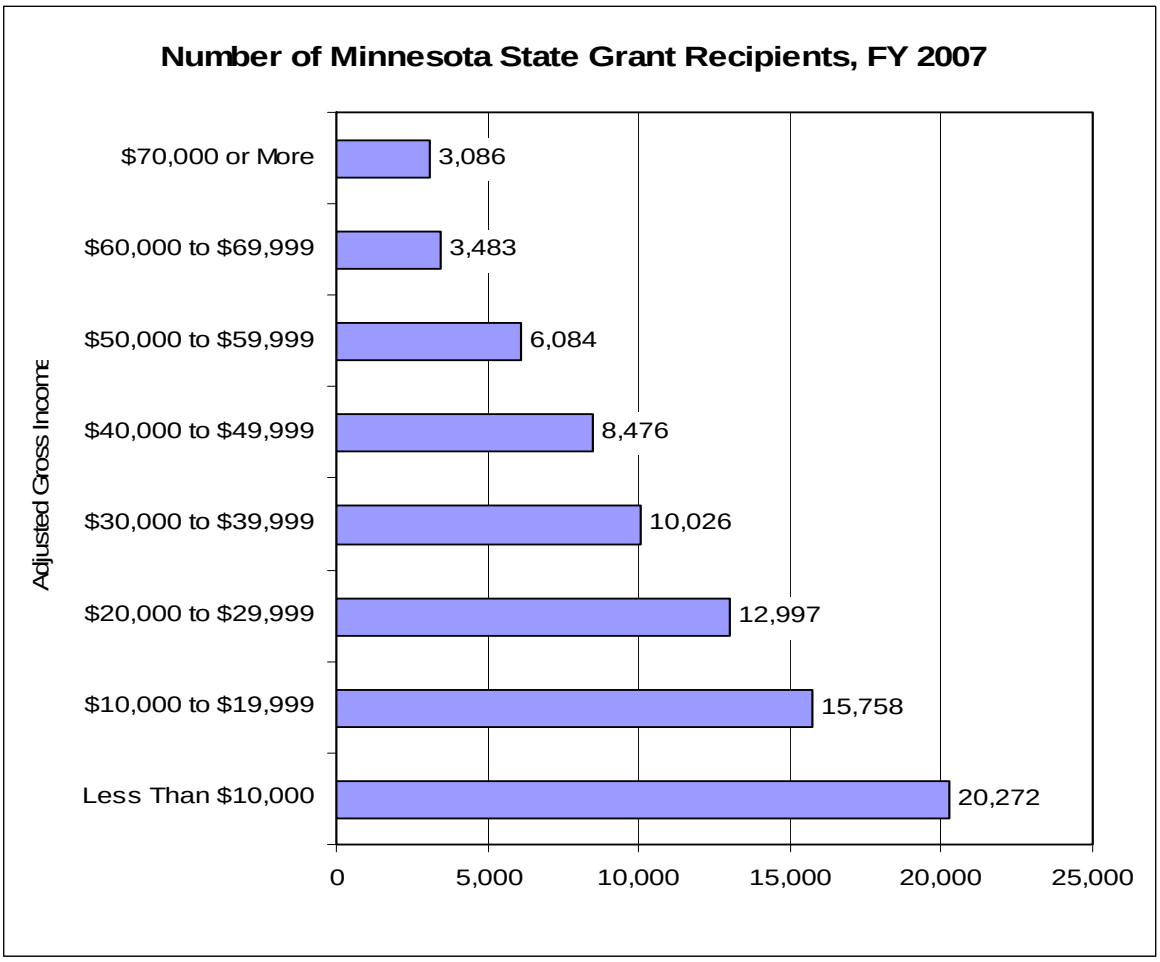
The higher education funding bill enacted in the 2007 session contained a provision requiring the Minnesota Office of Higher Education to undertake a thorough analysis of the State Grant program. A preliminary report is due to the Legislature by February 15, 2008 with a final report to follow by October 1, 2008. The language in the bill was specific in the scope of analysis required in the study. The analysis and evaluation must include:

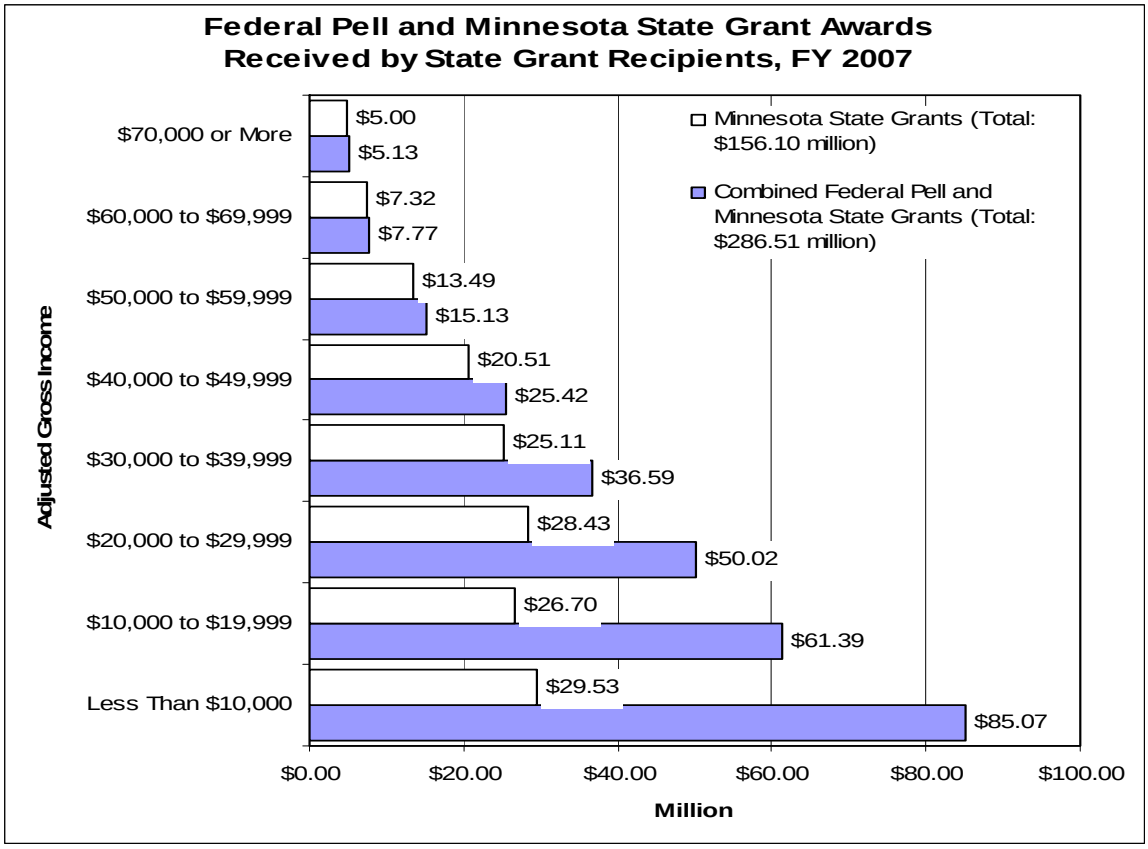
> *(1) evaluation of the assigned student share compared to the current and future income of a student, and analysis of the number of hours a student must work to meet the assigned student share without borrowing;*
> *(2) evaluation of the assigned family contribution, how it is determined under the 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;*
> *(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 preliminary analysis are contained in a series of papers, which accompany this summary. These papers contain additional detail and analysis. The report is preliminary, subject to change following further review and comment by interested parties.

Overview of the State Grant Program

The Minnesota State Grant program targets grant aid to students based on the income and resources of the students and their families and the price of attendance. The program has been recognized for enabling hundreds of thousands of students attend and complete postsecondary degrees.





Minnesota State Grant policy is based on a model called the Design for Shared Responsibility implemented in 1983.[1] This model is built on the work done by the Carnegie Commission on Policy Studies in Higher Education.[2] The program's goal is set 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.*

State Grant policy assigns responsibility for paying for college to undergraduate students, their families and, if necessary, federal and state taxpayers.

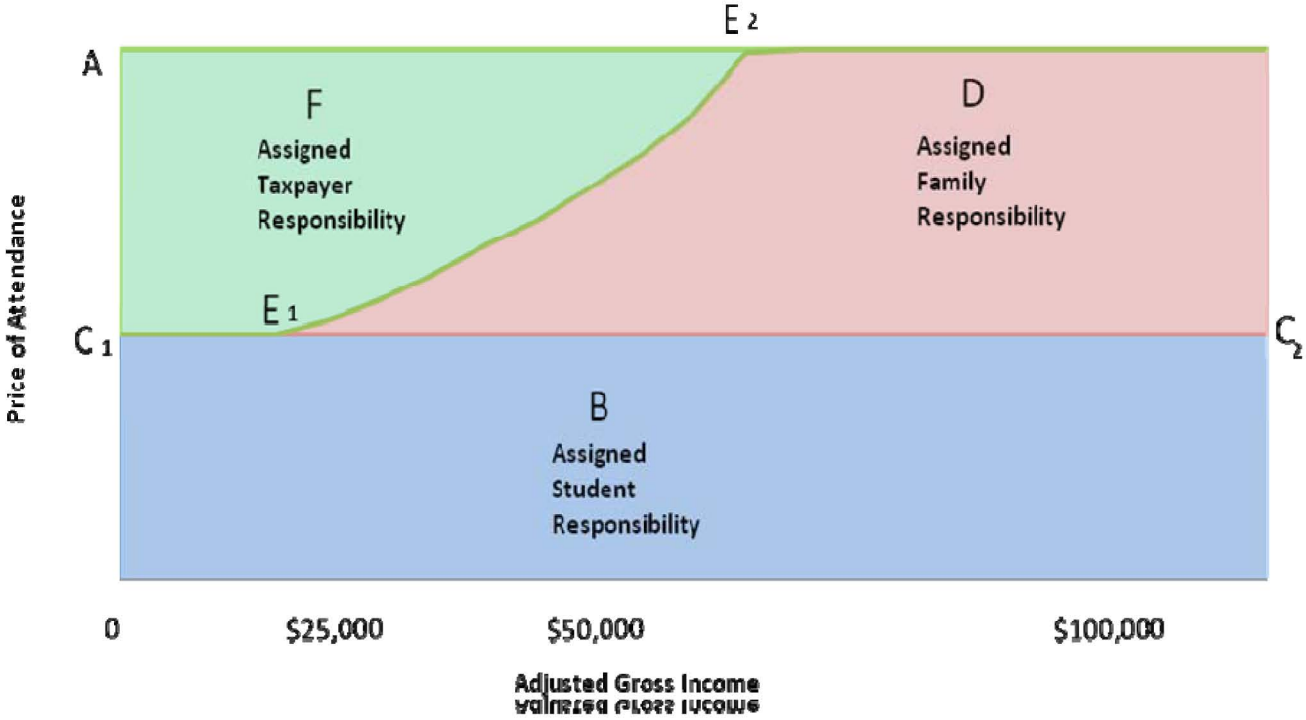
1. Minnesota expects *students* to make a significant personal investment in their own postsecondary educations. Students determine the price of their post-secondary educations by the choices they make such as decisions of where to attend and size of their registration loads.

2. Minnesota expects *families* to invest in their students' postsecondary educations based on their ability-to-pay.

3. Minnesota expects *taxpayers* invest in students by first leveraging federal tax dollars, through federal Pell Grants, which are then coordinated with Minnesota State Grants. The purpose of the taxpayer investment is to meet the policy goal of helping cover the price for families whose ability to pay is insufficient to meet the share of the price not assigned to students.

The chart below shows how the price of attendance is distributed among the three parties.

Graphic Description of State Grant Policy Framework



The policy parameters of the Minnesota State Grant Program identified on the chart are as follows:

- Distribution of the Recognized Price of Attendance starts with price, labeled (A) on the chart.
- Students (B) are expected to contribute towards their education through the Assigned Student Responsibility, currently set in legislation at 46 percent (C_1 to C_2) of the Recognized Price of Attendance.
- Families (D) are expected to contribute based on their economic and family circumstances as measured by the Federal Need Analysis and adjusted by Minnesota (E_1 to E_2), so as family income and net worth increase, the Assigned Family Responsibility increases.
- Taxpayers (F) are expected to meet the Assigned Taxpayer Responsibility through the coordinated Federal Pell Grant and the Minnesota State Grant when families are judged unable to meet all of the combined Family-Taxpayer Share of the Recognized Price of Attendance.

The Design for Shared Responsibility is a policy framework for assigning price, based on general expectations of students, families and taxpayers. The policy is not intended to prescribe or reflect precisely how students and their families divide the responsibility of paying for college. In reality, each student and family situation is unique. In some cases, institutional aid may cover some of the financial responsibility assigned to students and their families as well.

While the State Grant policy framework is designed to respond to changes in the higher education market over time, many of the component parts of the framework (such as the tuition and fee maximums and the percentage of price assigned to students) are set in statute and are adjusted periodically in response to budget or other pressures. This review of the program presents an opportunity to consider how the policy framework may be modified to serve students effectively into the future.

Comparison with the Previous Policy Approach

Minnesota State Grants were allocated differently prior to the adoption of the Design for Shared Responsibility in 1983. The prior model allocated payment responsibilities with little regard to price. Students were assigned an explicit dollar amount by the state. Parents were assigned a dollar amount determined by Uniform Methodology, a forerunner to today's Federal Need Analysis, is a methodology used by the federal government to calculate a family's ability to pay. Federal Pell and State Grant awards were constrained by maximum dollar awards in the prior model. For students from low to moderate-income families, the sum of the explicit student contribution, the family contribution and the maximum Federal and State Grant awards did not equal the Recognize Price of Attendance. Students from low to moderate-income families were left with the remaining price of attendance, an implicit student responsibility. As such, the prior model expected more from students from low to moderate-income families than from other students.

As presented in Chapter 3 of the *Preliminary State Grant Review*, the Design for Shared Responsibility corrected problems with the prior model. The new policy allowed all of the Recognized Price of Attendance to be assigned explicitly to students, families and, when necessary, taxpayers.

Price of Attendance

The price of attendance recognized in the State Grant program has two component parts. Both parts are established in statute. Inherent in the policy model is a challenge to establish and distribute a realistic price. The two components of price are:

1) **Recognized Tuition and Fees** (defined in Minnesota Statute as the lesser of):

   - Average tuition and required fees paid by resident undergraduates registering for full-time loads.
   - Tuition and fee maximums set as part of the state's appropriation process.

2) **Living and Miscellaneous Expenses** (also defined in Minnesota Statute)

Tuition and Fee Maximums: State statute does not provide policy guidance or external benchmarks for setting tuition and fee maximums. Instead they are established biennially as part of the state's appropriations process. This process does not apply an official benchmark to set the maximums. Three benchmarks have either been used or suggested for use in determining the tuition and fee maximums as an alternative to current policy. Each are explored in greater detail in Chapter 4 of the *Preliminary State Grant Review.*

- **Instructional Spending per Student at Public Institutions:** This alternative, used in the past, suggests using a benchmark equal to instructional spending per student at public institutions for the tuition and fee maximums. Using this method, instructional spending per student, by level of instruction, was the sum of instructional spending from state appropriations and student tuition.

- **Posted Tuition and Fees at Public Institutions:** The second alternative pegs the maximum tuition and fees to the posted tuition and fees at public institutions. This approach could create an incentive for institutions to increase prices.

- **Taxpayer Spending Per Student at Public Institutions:** A third approach pegs tuition and fee maximums used in the State Grant program to a measure of taxpayer spending per undergraduate students at public institutions. This is the sum of state appropriations spent on instruction, the federal Pell Grant and the State Grant. Taxpayer instructional appropriations per student do not include tuition, capital costs covered by the state through the bonding process or any other taxpayer investments such as federal tax credits or deductions.

Living and Miscellaneous Expense Allowance: The second component of the price of attendance is an allowance for various living and miscellaneous expenses. These include spending for room, board, books and other items considered a part of postsecondary educational expenses. Whether and how to include an allowance in the Recognized Price of Attendance has been the topic of policy discussions in Minnesota. Perspectives vary. Current State Grant policy explicitly recognizes these expenses as a part of the price of a postsecondary education.

The following table shows changes in the allowance and the Consumer Price Index since 1981. If adjusted for inflation, the living and miscellaneous expense allowance would be $6,047 in FY 2007. The Fiscal Year 2007 value was $6,065. However, the 2007 amount reflects a temporary increase due to a projected one-time surplus in the State Grant program.

Actual Living and Miscellaneous Expense allowance Compared against the Consumer Price Index

Year	Actual LME	CPI Adjusted LME
1981	$2,750	
1982	$2,750	$2,945
1983	$2,750	$3,049
1984	$2,750	$3,162
1985	$2,750	$3,260
1986	$2,850	$3,296
1987	$2,960	$3,415
1988	$2,985	$3,544
1989	$2,995	$3,708
1990	$3,300	$3,888
1991	$3,465	$4,041
1992	$3,750	$4,154
1993	$4,033	$4,273
1994	$4,115	$4,395
1995	$4,115	$4,529
1996	$4,115	$4,670
1997	$4,200	$4,783
1998	$4,500	$4,862
1999	$4,885	$4,966
2000	$5,075	$5,137
2001	$5,405	$5,274
2002	$5,405	$5,338
2003	$5,405	$5,442
2004	$5,205	$5,573
2005	$5,205	$5,750
2006	$5,350	$5,891
2007	$6,065	$6,047

Note: A temporary increase occurred in 2007 due to a projected surplus in the State Grant program.

As with the tuition and fee maximums, there is no evidence that the 1981 living and miscellaneous expense allowance was an appropriate amount. Three other comparisons help inform this review. The first is a comparison to poverty standards used in other state and local government programs. A second is a comparison to budgets used on campuses for financial aid. The third presents data from a College Board survey on college and university budgets.

- **Poverty threshold:** A common measure of a basic living standard for 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.[3] The poverty threshold for a single individual has grown continually from $4,729 to $10,488 over the period, 1981 to 2006, and has consistently been higher than the living and miscellaneous expense allowance when adjusted for a nine-month attendance period.

- **Campus budgets:** The average budget used by campus financial aid offices provides another potential benchmark for the living and miscellaneous expense allowance used to calculate Minnesota State Grants. Campus budgets are constructed to provide prospective students with a realistic picture of the cost of living on campus and to establish a price used in determining 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 amounts used by campuses for living and miscellaneous expenses for the 2006-2007 academic year ranged from a high of $11,027 at Carlton in Northfield to a low of $6,075 at Martin Luther College in New Ulm. Campus budgets generally have been higher than the State Grant program's living and miscellaneous expense allowance.

- **College Board Survey:** The College Board annually conducts a national survey of colleges and universities and reports weighted price averages of expenses other than tuition and fees by type of institution and location of students relative to campus. These averages are collected on an institutional basis and weighted by enrollment to reflect an average student. The "Other Expenses" portion of undergraduate budgets was $10,022 to $11,131. These are higher than the living and miscellaneous expense allowance value of $6,065 used to calculate Minnesota State Grants in Fiscal Year 2007.

Assigned Student Responsibilities

Current state policy assigns 46 percent of the price of higher education to students. Determining whether 46 percent of the Recognized Price of Attendance is a "reasonable" amount is a practical policy challenge. Set too high, students will be unable to meet their assigned responsibility. Set too low, students may take postsecondary education less seriously and the cost assigned to other parties increases. Students may draw on past income (savings), current income and future income (loans) to help meet their Assigned Student Responsibility.

Chapter 6 of the *Preliminary State Grant Review* provides an analysis of how students may cover their assigned responsibility. In this analysis student's savings were ignored, since savings are a reality for a small number of students for their first year of postsecondary education. The focus here was placed on current earnings and loans.

Student Earnings The full analysis covered in Chapter 6 first examined the level of work a student must perform if the entire assigned student share was paid with current income. Two wage rates were assumed for students, the minimum wage in law and average student work study wages. The first is constant for all students, but the second differs based on campus wage decisions. The analysis included both dependent and independent students, but only the dependent students were reported in this summary. The amount of the student share differed by institution type since recognized price differed. Three scenarios were analyzed:

- **Using the minimum wage of $5.85 per hour:** This scenario assumed dependent students paid the Assigned Student Responsibility 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; the prices used in the analysis depended on the institution type.

- **Using an average work-study wage:** This scenario assumed dependent students worked the same number of hours per week for 38 weeks per year combined with 12 weeks of full-time employment (for example, summer break). In this case, the average work week required while enrolled to pay the Assigned Student Responsibility ranged from 6 to 25 hours per week in Fiscal Year 1998 and 9 to 23 hours per week in Fiscal Year 2007, at the prices used in this analysis.

- **Using U.S. Census Bureau data.** The U.S. Census Bureau developed a large sample for Minnesota and other states called the American Community Survey. This survey contained income and hours worked data for students in Minnesota. From this, an average wage rate can be calculated that is comparable to the wage rates used in the analysis. The computed rate was higher than both of the two alternatives. It was $9.36 and $14.84 for dependent and independent students respectively in 2004. At these wages, students do not have to work as many hours to cover the assigned student share compared with the results in the other two scenarios above.

Student Borrowing

Another way of analyzing the Assigned Student Responsibility is to evaluate student debt burden from loans. A 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 students with at least some college experience have been increasing over time. The analysis on student borrowing in Chapter 5, was based on the reported "earnings before deductions" of Americans age 20 to 25 not currently enrolled who have, at least, a baccalaureate degree. The results showed that monthly payments decreased between Fiscal Years 1998 and 2004 because interest rates decreased. The ratio of payment amounts to monthly income decreased as well. Both payment amounts and ratios of payment amounts to monthly income increased from Fiscal Year 2004 to Fiscal Year 2007. Loan repayment as a percent of income was below five percent monthly for students attending all types of institutions, assuming students borrowed enough to cover the Assigned Student Responsiblity for one year.

Student Earnings and Borrowing

A third approach describes a scenario in which students rely on both earnings and borrowing to cover the Assigned Student Responsibility. First, it was assumed all students borrowed an amount equal to Assigned Student Responsibility of students attending public two-year colleges. As such, all students were assumed to borrow the same amount. Students attending public two-year colleges covered their Assigned Student Responsibility completely with borrowing. All other students were assumed to work enough to make up the difference between their Assigned Student Responsibility 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 analysis. Students who borrowed approximately $5,000 per year would need to work 12 hours a week or less to cover the student share.

A combination of earning and borrowing reduces student work hours when compared to paying for the Assigned Student Responsibility entirely through work and reduces the amount students borrowed when compared to paying for the Assigned Student Responsibility entirely through loans.

Assigned Family Responsibility

Chapter 7 of the *Preliminary State Grant Review* analyzes the Assigned Family Responsibility. The Assigned Family Responsibility reflects the financial and household situations of applicants' families. As family income and net worth increases, the Assigned Family Responsibility increases. Minnesota coordinates with the federal student aid application process. Minnesota State Grant applicants fill out the same form for federal and state grants, the Free Application for Federal Student Aid.

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 what a family is expected to pay for postsecondary education, the Expected Family Contribution. The results of the Federal Need Analysis are used to determine Federal Pell Grants, Federal Stafford Loan subsidies and other federal financial aid amounts for the student. Many campuses use the results of the Federal Need Analysis as well.

Minnesota uses the definitions and rates in the Federal Need Analysis, but does not accept the results in determining Assigned Family Responsibility and awarding Minnesota State Grants. Instead, Minnesota makes downward adjustments to the results of the Federal Need Analysis. Specifically, Minnesota's Assigned Family Responsibilities do not include an assessment for students' income and net worth for families with dependent students. Further, beginning in Fiscal Year 2008, for parents of dependent students Minnesota assigns 96 percent of the federal results. For independent students with dependents, Minnesota currently assigns 86 percent of the federal results and for independent students with no dependents other than a spouse, Minnesota currently assigns 68 percent of the federal results.

As family income increases, the share of the Recognized Price of Attendance assigned to families increases. More significantly, 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.

The percentage of a family's adjusted gross income needed to cover the assigned family responsibility is an important gauge of affordability. Using this measure, the assigned family effort for a family of four with dependent students attending Minnesota's private four-year institutions increased from 6.5 percent to 10.0 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 recognized tuition and fees that occurred because of the small state-mandated increases in tuition and fee maximums during this period.

Since 1986, the peak assigned family effort for students attending institution types other than private four-year colleges has increased and affected more families in the middle of the income spectrum. The peak assigned family effort for families with students attending the University of Minnesota, for example, increased from about seven percent of about $30,000 incomes in 1986 to roughly 12 percent of about $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, albeit less dramatic, increases were observed for families with students choosing other institutions.

Measuring Ability to Pay

Chapter 8 of the *Preliminary State Grant Review* presents the current policy applied in measuring a student and family's ability to pay and compares current practice with other government policies that base awards and payments on the financial situations of recipients. The analysis summarizes other ability-to-pay measures including federal and state personal income taxes, Minnesota's property tax refund, and two state-run child care programs. The formulas embodied in these programs were used to calculate alternatives to the Assigned Family Responsibility and the consequences for family and taxpayer responsibilities.

Because the Assigned Family Responsibility used in the State Grant program determines the distribution of grants across income levels, it is the focus of much attention among policy-makers and advocates. The suggestions to change the "treatment" of part-time and independent students by prorating awards could be accomplished in practice by changing the measurement of ability-to-pay, for example. Calculations of Assigned Family Responsibility require assessing family finances, including income, after adjusting for family and other circumstances deemed relevant.

- **Federal and state income tax liabilities:** Tax burdens for both federal and Minnesota personal income taxes were calculated as the ratio of tax liability and adjusted gross income for each income group. Tax burdens increased continuously as incomes increased for both taxes. Thus, both tax systems were progressive, at least with the assumptions specified for the examples used. There have been dramatic changes in tax laws over the last 12 years. Federal individual income tax burdens were reduced between 1995 and 2007. Minnesota individual income tax burdens were also marginally reduced. In this environment of decreasing tax burdens, the Assigned Family Responsibility and effort for paying for college have remained relatively steady for lower income families and have been increasing for other families. More effort is expected from families to pay for their children attending higher education than from these same families to pay for all other government services financed through income taxes.

- **Property tax refund program:** The Assigned Family Responsibility is a payment expectation based on income and net worth. Property taxes are government-imposed liabilities based on the value of the property that homeowners, and implicitly, renters must pay. To provide income sensitivity to the payment of property taxes, Minnesota created property tax refunds. In the analysis in Chapter 7, the State Grant program's Assigned Family Responsibility and efforts are compared with what they would be if the formula used to calculate Minnesota property tax refunds were used.

  Homeowners and renters can qualify for property tax refunds based on property tax liabilities, family sizes, and incomes The property tax refund program expects more from families under $45,000 of income and less from families above that level than does the State Grant program.

- **State child care programs:** The comparison in this analysis was with two child care programs; one for the care of disabled children and the second the sliding scale child care program. In each case there were differences between the family expectation in the State Grant program and these two programs.

How Families Pay for College

The legislative directive for this report included a request for an analysis of how parents pay for their share of the Assigned Family Responsibility. More generally, this is or more generally, how do parents pay for college. Ideally there would be data available indicating the ways an average family contributes to a child's education makes those payments. Families can save, work more, consume less or take on debt to make these payments. This data does not exist for Minnesota. There have been a number of national studies and a few statewide studies that help inform this discussion; however, much of the research is either more than 10 years old or focused on one aspect of financial decision making, such as borrowing. Chapter 9 of the *Preliminary State Grant Review* looks at existing research on how families pay for college.

A table was published by Joseph E. Stiglitz and others in *The Impact Of Paying For College On Family Finances* in 2003. The authors found that parents use, on average, a combination of three or more strategies when financing their child's postsecondary education. The data in the report is from 1993 and is not likely representative of today's economic realities. But presents the choices parents consider when paying for college. The general relationships between strategies may still be relevant.

Survey Results of How Minnesota Families Pay for College

Strategies for financing college (% of families)				
	Total	**Private non-profit four-year**	**Public four-year**	**Public two-year**
How financed:				
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 data is from 1993				

Federal Tax Credits and the Tuition and Fee Deduction

The Assigned Taxpayer Responsibility as defined in the State Grant program is the portion of Recognized Price of Attendance not covered by Assigned Student Responsibility and the Assigned Family Responsibility. Coverage of the Assigned Taxpayer Responsibility is provided by federal Pell Grants, and if necessary, Minnesota State Grants. This is not the only taxpayer money provided to families to help cover the cost of higher education. In addition to the estimated $12.9 billion in Federal Pell Grants awarded nationally in Fiscal Year 2007, another estimated $5.9 billion of taxpayer investment was made through federal tax credits and the tuition and fee deduction. In Chapter 11 of the *Preliminary State Grant Review*, tax credits and the tuition and fee deductions are described and their relationship to the assignment of recognized prices is examined.

Federal postsecondary education tax credits were first introduced in Congress in 1994. Congress approved the Hope Tax Credit and Lifetime Tax Credit in 1997. Taxpayers were first able to claim the credits in 1998.

The Hope Tax Credit and the Lifetime Tax Credit followed separate policy paths through Congress, which may account for their different eligibility criteria. The Federal Tuition Tax

Deduction followed later and extended postsecondary education tax benefits to tax filers whose income exceeded the income cut-off for Hope and Lifetime Tax Credits.

Federal tax credits and the tuition tax deduction differ from traditional financial aid policies and practices.

- Federal postsecondary education tax credits and the tuition deduction are reimbursed after postsecondary education expenses have been paid in contrast to financial aid grants and loans disbursed at the time expenses are incurred.

- Federal tax credits and the tuition deduction provisions are included in the United States Internal Revenue Code and federal financial aid grants and loans provisions are included in the Higher Education Act.

- Federal tax credits and the tuition tax deduction extend up the income scale and assist families typically not eligible to receive a Federal Pell Grant and a Minnesota State Grant.

Chapter 10 of the *Preliminary State Grant Report* contains details on the provisions of the federal postsecondary education tax credits and the tuition tax deduction. In addition, the chapter provides data on the distribution of the tax benefits across incomes. In general, some families eligible for the Federal Pell Grant and the Minnesota State Grant may also qualify for Hope and Lifetime Tax Credits. Nevertheless, federal tax credits and the tuition tax deduction extend federal postsecondary education benefits to families with incomes beyond the reach of the federal financial aid programs contained in the federal Higher Education Act and Minnesota's State Grant.

Expanding the State Grant Program to Graduate Students

The legislation calling for this review of the State Grant program directs the Office of Higher Education to identify "degree programs deemed to be important to the workforce needs of the state". The analysis in Chapter 12 of the *Preliminary State Grant Review* does not specifically identify particular degree programs. Instead, it relies on occupational demand data produced by the Department of Employment and Economic Development to indicate occupations requiring a graduate or professional degree will be needed in the future.

In general, Minnesota has chosen not to link financial aid to workforce development but instead has allowed 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. As a need-based financial aid program, the State Grant is not designed to address specific occupational needs.

The structure of the Minnesota State Grant program could be applied to graduate and first professional students. A recognized tuition and fee level could be established. A living and miscellaneous expense allowance could be set as well. These could be the same as used for undergraduates or set at different levels. Adjustments to the results of the Free Application for Federal Student Aid could be made as is current practice for Minnesota State Grant applicants.

One potential concern with expanding State Grant eligibility to graduate and first professional students is the treatment of the various forms of funding currently in place. Many of these students receive assistantships, and fellowships. New money provided by the state may simply supplant these funds and not produce new aid for students. This would be difficult to control since these decisions are made at the campus level and outside the administrative management of state policy.

A number of general considerations, outlined in Chapter 12 of the *Preliminary State Grant Review,* address 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. Existing efforts to link workforce needs and financial aid suggest that a thorough understanding of the job market for each field is necessary in order to determine whether a financial aid incentive would actually achieve the desired affect.

Future Analysis and Recommendations

Analysis
This report summarizes a significant amount of State Grant program analysis. It is, however, a preliminary report and it is expected more work is needed before a final product is presented to the Legislature. The following steps will be taken to inform the final report.

1. Meetings will be held with legislative staff and other interested parties to discuss the findings in the various reports and expand the analysis as necessary.

2. Each report will undergo an editing process to clarify and refine the analysis.

3. Analysis in additional programmatic areas may be undertaken and presented at meetings. Areas for consideration may include an analysis of State Grant award proration for part-time students, the definition of full time attendance and the relationship between the Pell grant and the State Grant Award.

4. Additional data collection and analysis will be considered. For example, the data in the background paper on how parents pay for college is not current and should be updated. However, a study of this nature requires a well designed survey and sufficient resources are not available to undertake this effort.

Recommendations
The legislation directed the Office of Higher Education to "report its preliminary findings and recommendations". Since this report is preliminary the recommendations are not specific as to any particular policy variable. Any specific policy variable recommendation will either require additional funding through the appropriations process or a redistribution of the current appropriation among students. There are four general recommendations that align with the underlying principles of the program. These are:

1. 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 as to enhance this outcome and should not favor one type of institution over another.

2. The basic policy distributes the price of higher education for each student to three different parties, students, their families and, if necessary, the taxpayers. This implies 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 compared to what a student actually pays, then the program will fail to encourage the educational development of Minnesota men and women who are economically disadvantaged, as specified in Minnesota Statute.

As a policy matter, having the tuition and fee maximums and the living and miscellaneous allowance pegged to a formal benchmark consistently applied would be a topic worthy of consideration.

3. If the policy goal of the State Grant Program is to appropriately distribute the Recognized Price of Attendance, then what is expected of students and families should be reasonable and based on acceptable measures. Students should not be expected to pay more than can be reasonably earned through work or borrowed through loans and still achieve a successful academic outcome. Families should be expected to contribute a reasonable and fair amount relative to their income and net worth. Concerns about what is expected of families have been reflected in Minnesota policy changes to the Assigned Family Responsibilities in the last few years.

4. The State Grant program must reflect the reality of the postsecondary education market while at the same time providing incentives for students to finish college in as timely a fashion as possible. The opportunity cost of lost wages resulting from an extended time in school is not positive for the student, the institution or the state.

[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).

3. In this section, the poverty threshold for the calendar year is compared to the LIVING AND MISCELLANEOUS EXPENSE ALLOWANCE for the fiscal year, for example, poverty threshold for calendar year 2003 is compared with the LME for Fiscal Year 2003.

Overview of the Design for Shared Responsibility

Staff Background Paper

Prepared by:
Staff of the Minnesota Office of Higher Education

December 17, 2007

Contents

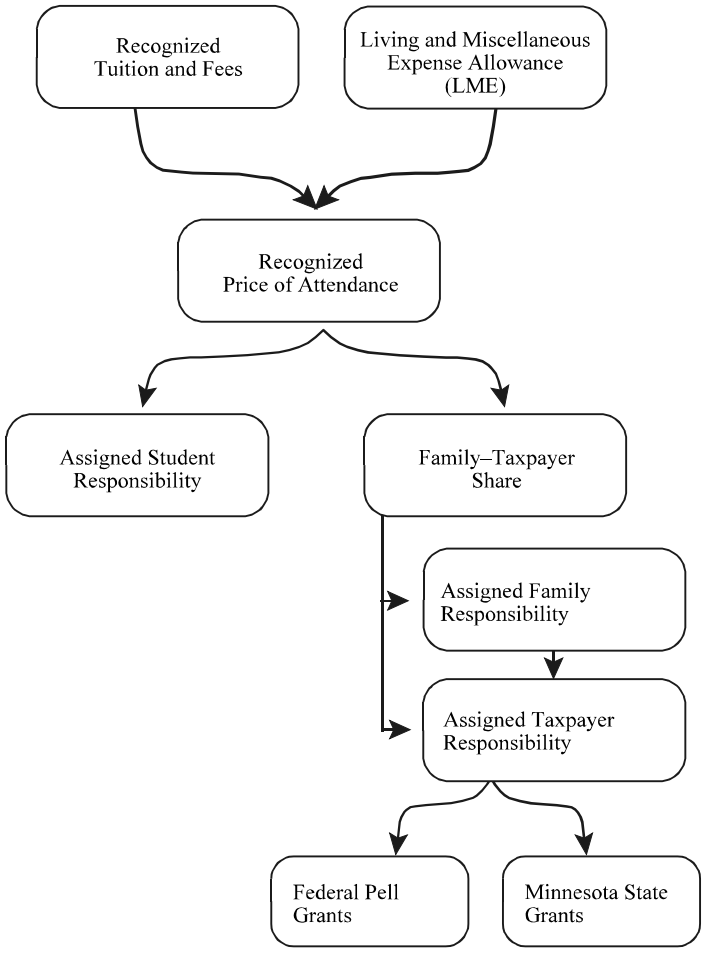
Introduction

The Design for Shared Responsibility has provided the policy foundations for the Minnesota State Grant Program since 1983.[1] It builds on the work done by the Carnegie Commission on Policy Studies in Higher Education.[2] The Design for Shared Responsibility assigns responsibility for paying for college to undergraduate students, to their families and, if necessary, to state and federal taxpayers. The Design for Shared Responsibility guides state policy makers in responding to changes in tuition and fees and living expenses faced by students..

Students determine the price of their post-secondary educations by the choices they make, such as decisions of where to attend and size of their registration loads.

The Design for Shared Responsibility, as applied to Minnesota State Grants, distributes the price of post-secondary education based on family circumstances and attendance choices among students, families, and taxpayers, as shown on the chart to the right.

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



- Minnesota expects *students* to make a significant personal investment in their own post-secondary educations up front, called Assigned Student Responsibilities.

- Minnesota expects *families* to invest in their students' post-secondary educations based on their ability-to-pay, called Assigned Family Responsibilities.

- Minnesota leverages *taxpayers'* federal tax dollars (Federal Pell Grants) to work with state tax dollars (Minnesota State Grants) to meet the state policy of helping to cover the price for families whose ability to pay

(Assigned Family Responsibility) does not provide full coverage of their Family-Taxpayer Share.

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.

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

The Design for Shared Responsibility does not describe how students and families pay for postsecondary education. It is a policy model allocating rigorous, but reasonable, payment assignments among students, families, and taxpayers.

This paper describes the distribution of Recognized Prices of Attendance among students, families and, if necessary, taxpayers. In addition, the paper describes the norms and values embedded in the Design for Shared Responsibility as a price distribution model. The practical effect on typical students with different family incomes attending different educational institutions is also presented. Finally, the paper describes how the Design for Shared Responsibility has guided the Minnesota State Grant Program in responding to changes over the past two decades.

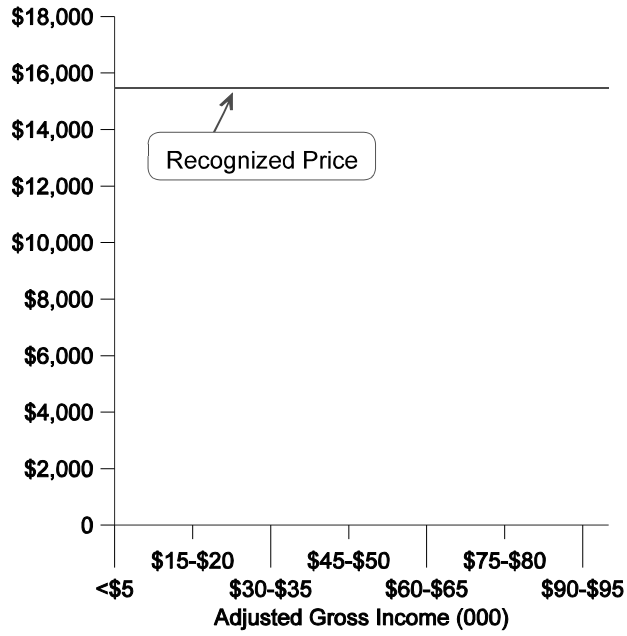
Recognized Prices

The Design for Shared Responsibility begins with Recognized Prices.[3] Recognized Prices vary by institutions students select, and their registration loads. Recognized Prices define the total amount assigned to students, families, and taxpayers within the Design for Shared Responsibility.

Recognized Prices include two components:

- Recognized tuition and fees
- 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.

Currently, there are more than 100 different Minnesota campuses identified for purposes of awarding Minnesota State Grants. These institutions have been aggregated into five groups to provide five examples of prices charged to Minnesota undergraduates. 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

Institutional Grouping	Posted Tuition and Fees	Recognized Tuition and Fees	Difference
Minnesota Private 4-Year Institutions	$19,476	$8,547	$10,929

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. Further, average recognized tuition and fee values depend on the mix of applicants facing the Two- and Four-Year Maximums. Since Fiscal Year 2004, Tuition and Fee Maximums apply to students based on the program in which they are enrolled. 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, living and miscellaneous expenses increase the price of attending; for students attending lower-priced institutions, living and miscellaneous expenses exceed tuition and fees.

The recognized living and miscellaneous expense allowance (LME) 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

The Design for Shared Responsibility 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]

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 standard Living and Miscellaneous Expense Allowance. 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 the private sectors has been limited by the Tuition and Fee Maximums.

The series of five Recognized Prices, shown in the upper panel, serve as the base 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 decomposes the changes into recognized tuition and fees and the Living and Miscellaneous Expense Allowance 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 in All Sectors, Fiscal Years 1986-2007

MnSCU Two-Year Colleges

MnSCU Four-Year Universities

Minnesota Private Two-Year Institutions

Minnesota Private Four-Year Institutions

Student Assignments

The Design for Shared Responsibility starts with assigning students responsibility for paying part of the recognized price of attendance, as shown on the chart to the right. Currently, Assigned Student Responsibilities are set 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 is similar to venture capitalists requiring entrepreneurs to invest in their own projects before providing capital. The practice also parallels lenders requiring home buyers to provide a down payment before writing a mortgage.

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

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

The Design for Shared Responsibility embodies the following values by assigning a rigorous, but reasonable share of the Recognized Price of Attendance to students. [8]

- Students should consider price in making institutional and registration choices; Students choosing higher priced institutions are expected to invest more in their own educations.
- 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

Research has shown most, but not all, 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, currently, set at 46 percent of the Recognized Price of Attendance.

Assigned Student Responsibilities vary directly with recognized prices; as prices increase, Assigned Student Responsibilities increase. The Assigned Student Responsibilities, displayed on the upper panel to the right:

- 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, as shown on the bottom panel and the next page.

Assigned Student Responsibilities Increased at the University of Minnesota

But, Less Than Half as Fast as Prices

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

MnSCU Two-Year Colleges

MnSCU Four-Year Universities

Minnesota's Private Two-Year Institutions

Minnesota's Private Four-Year Institutions

Family-Taxpayer Assignments

After students, the Design for Shared Responsibility assigns the remaining portion of the Recognized Price to students' families and, if necessary, to taxpayers.

The size of Family-Taxpayer Shares depends on recognized prices and Assigned Student Responsibilities. 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 sectors, as shown in the panel 2.

Since Fiscal Year 1986, Family-Taxpayer Shares grew at rates of about 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 institutions in the public sector have grown faster than family income. Family-Taxpayer Shares for students attending institutions in the private sector grew more slowly than family income, due the Tuition and Fee Maximums. 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 just more than 119 percent between 1986 and 2007.[10]

If all families were expected to finance the Family-Taxpayer Share, then 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 8 percent of income.

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

Typical Students Attending the University of Minnesota, Fiscal Year 2007

2. Family-Taxpayer Shares

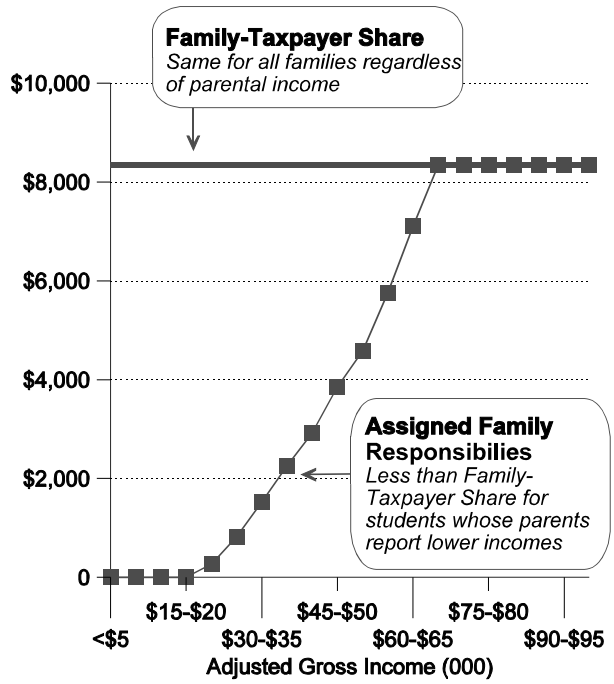
3. Family-Taxpayer Shares Relative to Income

4. Family-Taxpayer Share as a Percent of Income

Typical Dependent Students Attending Minnesota State Colleges, Fiscal Year 2007

1. Assigned Family Responsibilities

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



The Design for Shared Responsibility is built on the principle that families have their assignments based on their abilities-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.

Currently, Minnesota coordinates with the federal student aid application process so Minnesota applicants and their families fill out the same form for federal and state grants, the Free Application for Federal Student Aid, FAFSA.[11]

The federal government, using the Federal Need Analysis, assesses family incomes and net worths reported on the FAFSA.[12] The results of the Federal Need Analysis are what the federal government expects families to pay for postsecondary education, Expected Family Contributions. The federal government uses these results to determine Federal Pell Grants, Federal Stafford Loan subsidies, and other federal financial aid amounts. Many campuses use these results as well.

Minnesota uses the definitions and rates in the Federal Need Analysis, but does not accept the results in determining Minnesota State Grants. Instead Minnesota 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 worths 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 (move to the right on the income scale), Assigned Family Responsibilities increase as well. At some point on the income spectrum, Assigned Family Responsibilities equal the Family-Taxpayer Share, at about $60,000 adjusted gross income at a Recognized Price of $15,462 used in the chart. That point varies with prices since Family-

Taxpayer Shares directly 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). Parents of dependent students with more dependents are assigned less financial responsibility (the line shifts down).

The Design for Shared Responsibility embodies the following values by assigning a share of the Recognized Price of Attendance to families:[13]

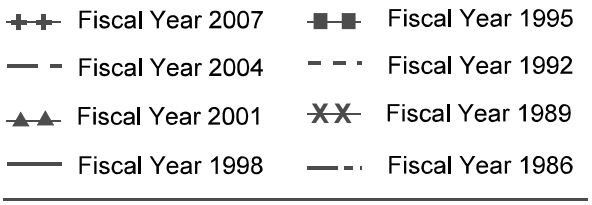
- Family income and net worth are appropriate measures of ability-to-pay for the postsecondary education of family members.
- Families benefit from educated family members.
- Families will accept their financial responsibilities, and if they do not, the responsibility falls to the student and not to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

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

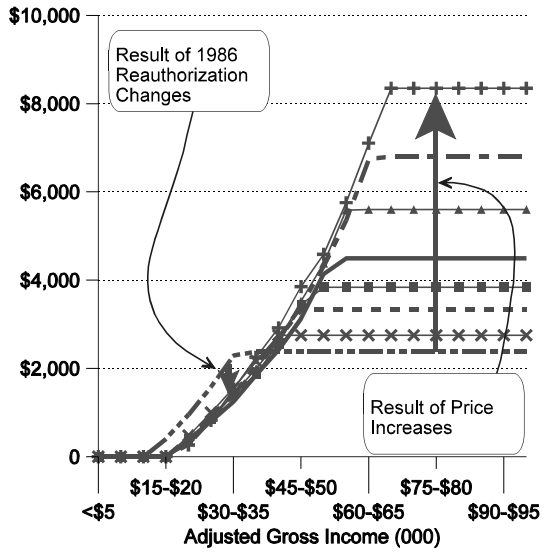
For dependent students, the dollar amount assigned to families from lower income families decreased between Fiscal Years 1986 and 1989, as shown on the upper panel to the right. For families on the right side of the income distribution, Assigned

Assigned Family Responsibilities & Efforts

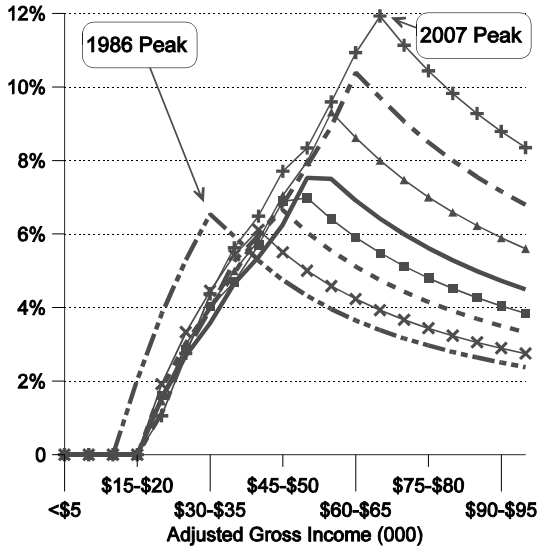
Typical Dependent Students Attending the University of Minnesota



Assigned Family Responsibilities



Assigned Family Efforts



Family Responsibilities have been increasing with price increases. While this panel applies to dependent students attending the University of Minnesota, similar results occurred for all families of dependent students irrespective of where students chose to attend.

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 relative to their incomes.

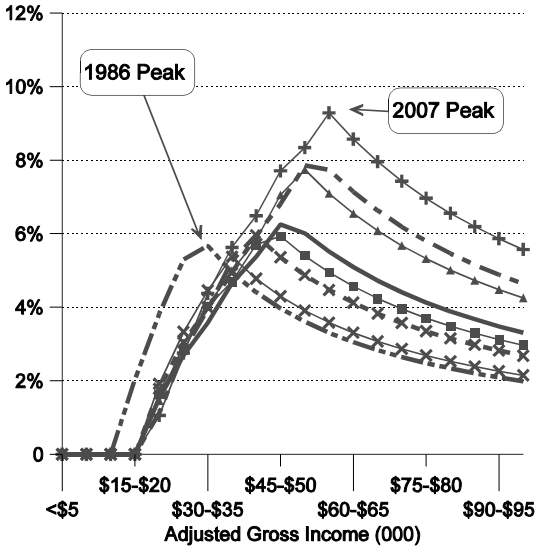
For typical dependent students attending the University of Minnesota in Fiscal Year 2007, the peak was about 12 percent for families earning about $70,000. This is up from the 1986 peak of about 7 percent at incomes of about $30,000.

Similar charts of Assigned Family Efforts for the other four examples are shown on the next page.

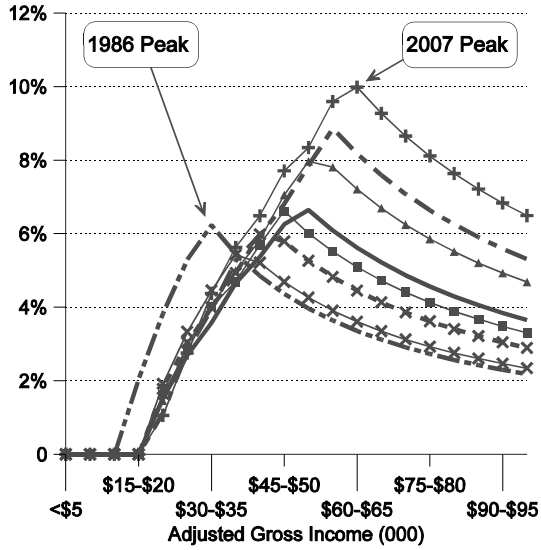
Assigned Family Efforts for Dependent Students

Fiscal Year 2007
Fiscal Year 2004
Fiscal Year 2001
Fiscal Year 1998
Fiscal Year 1995
Fiscal Year 1992
Fiscal Year 1989
Fiscal Year 1986

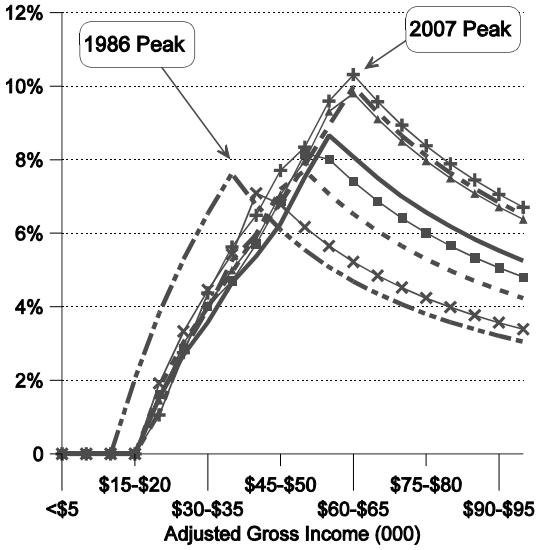
Minnesota State Two-Year Colleges



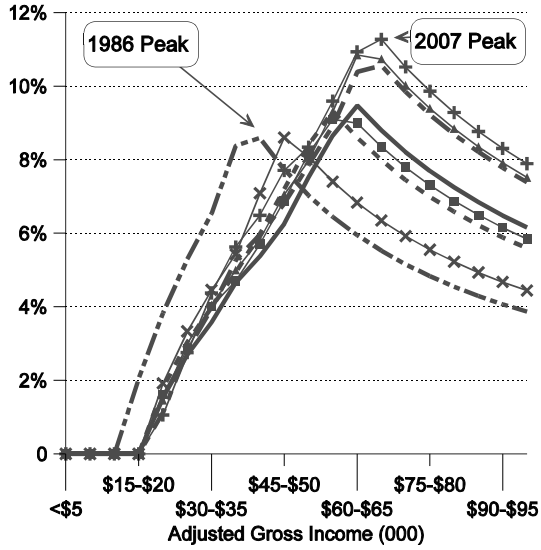
Minnesota State Four-Year Universities



Minnesota Private Two-Year Institutions



Minnesota Private Four-Year Institutions



B. Change in Assigned Family Responsibilities for Unmarried Independent 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.
- 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 left side of the income distribution.
- Assigned Family Responsibilities for students with the lowest income were zero in Fiscal Year 2007.
- Assigned Family Responsibilities have been increasing with price increases for students on the right side of the income distribution.

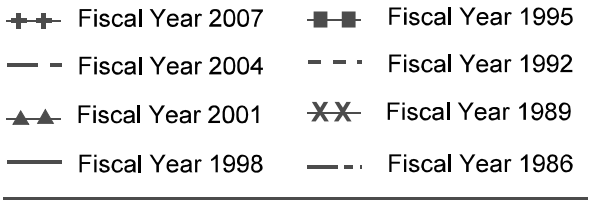
Typical unmarried students with no dependents earning more than $45,000 attending the University of Minnesota in Fiscal Year 2007 were assigned the entire Family-Taxpayer Share of the recognized price of attendance, as shown on the top panel.

Assigned Family Responsibilities measured as a percentage of adjusted gross incomes provide an indicator of financial effort. This relationship, called Assigned Family Efforts, 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.

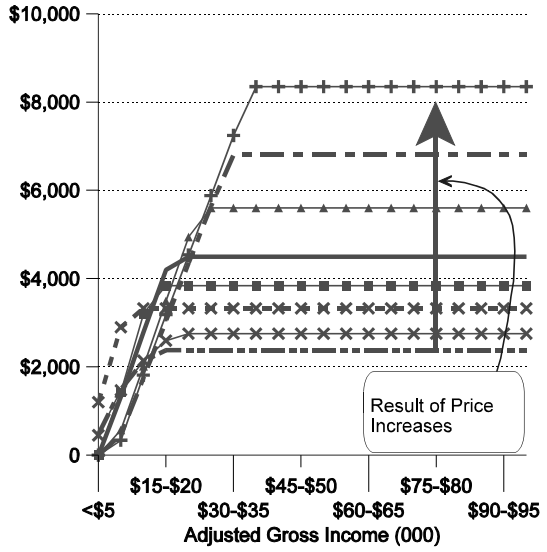
For typical unmarried students with no dependents attending the University of Minnesota in Fiscal Year 2007, the peak was about 21 percent for those earning about $35,000. This compares with the 1986 peak of about 15 percent at incomes of about $10,000. The peak was as high as 29 percent in 1992. Similar charts of Assigned Family Efforts for the other four examples are shown on the next page.

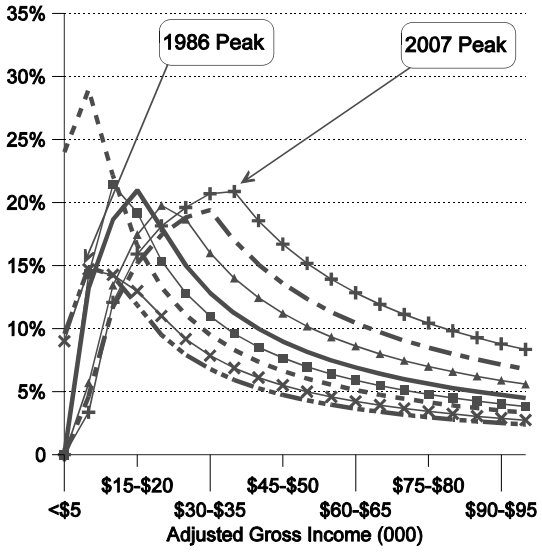
Assigned Family Responsibilities & Efforts

Typical Unmarried Students with No Dependents Applying as Independent Students Attending the University of Minnesota



Assigned Family Responsibilities

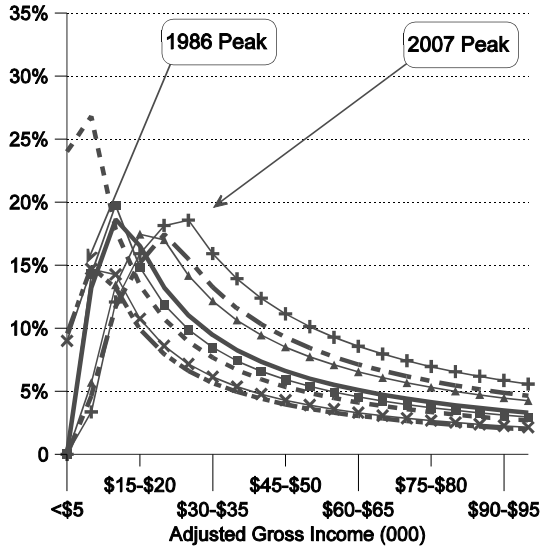




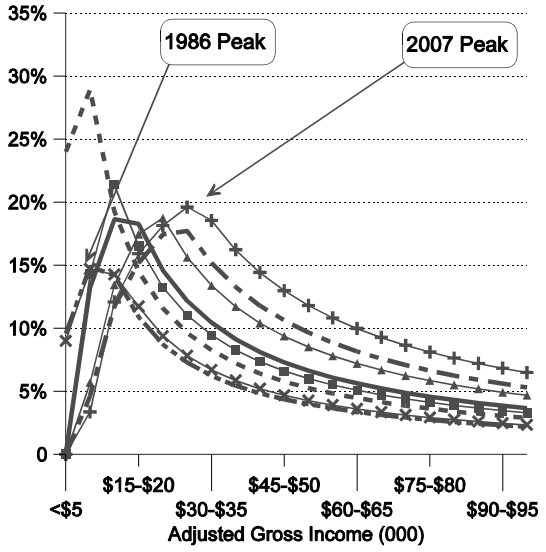
Assigned Family Efforts for Unmarried Independent Students with No Dependents

Fiscal Year 2007
Fiscal Year 2004
Fiscal Year 2001
Fiscal Year 1998
Fiscal Year 1995
Fiscal Year 1992
Fiscal Year 1989
Fiscal Year 1986

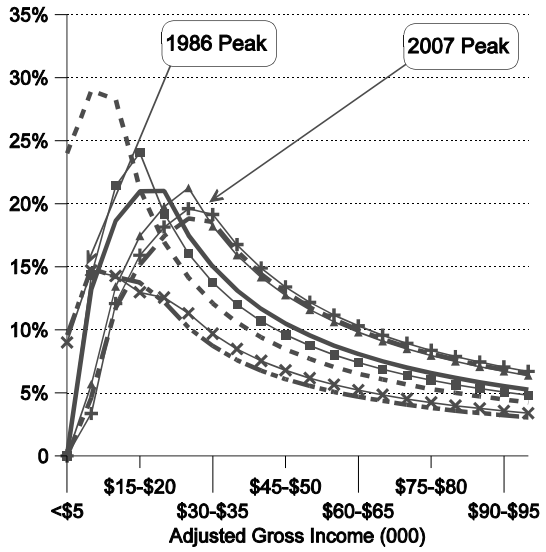
Minnesota State Two-Year Colleges



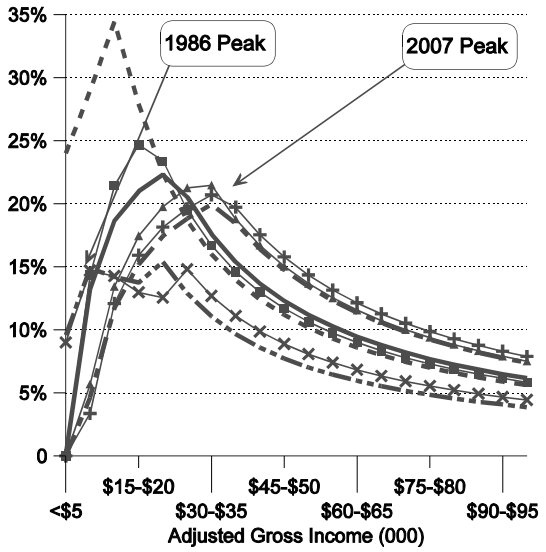
Minnesota State Four-Year Universities



Minnesota Private Two-Year Institutions



Minnesota Private Four-Year Institutions



2. Assigned Taxpayer Responsibilities

All Minnesota State Grant applicants face two assignments before taxpayers make investments through Federal Pell and Minnesota State Grants. The first, called Assigned Student Responsibilities, is based on the principle that students receive a personal benefit from investing in postsecondary education. The second, called Assigned Family Responsibilities, is based on the principle that the family has a financial responsibility based on ability-to-pay.

Taxpayers are the final partners in the Design for Shared Responsibility and are responsible for any Recognized Price not covered by Assigned Student and Family Responsibilities. Assigned Taxpayers Responsibilities are the remaining price, the residual, on the chart to the right..

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

Federal Pell Grants, if any, are counted first in covering Assigned Taxpayer Responsibility. Minnesota State Grants are counted second. Minnesota increases Assigned Student and Family Responsibilities to account for the full Recognized Price of Attendance when Minnesota State Grants fall short of filling the remaining Assigned Taxpayer Responsibly.[14]

The Design for Shared Responsibility 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.

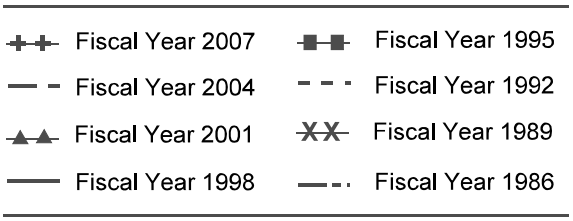
- State taxpayers are also federal taxpayers and have an interest in coordinating their investments in students.

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

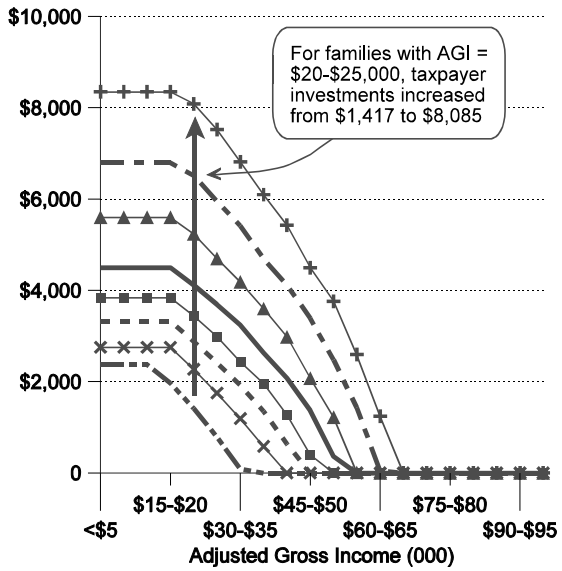
For families in the $20–$25,000 income group, Assigned Taxpayer Responsibilities for "typical" dependent students attending the University of Minnesota increased from $1,417 to $8,085 from Fiscal Years 1986 to 2007, as shown on the top panel to the right.

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 in all sectors, as shown on the next two pages of charts.

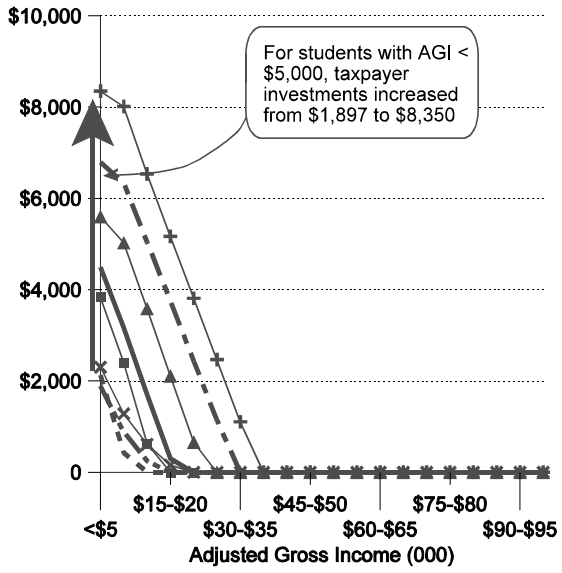
Assigned Taxpayer Responsibilities Increased For Students Attending the University of Minnesota



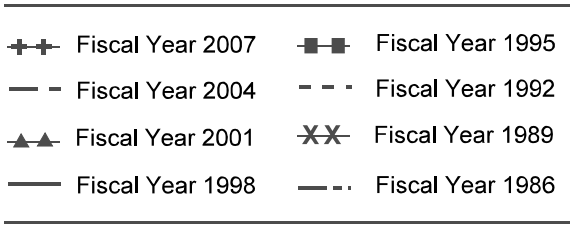
Dependent Students



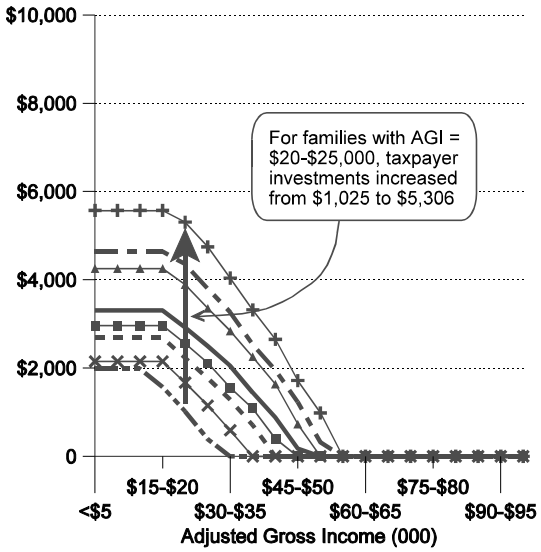
Unmarried Students with No Dependents Applying as Independent Students



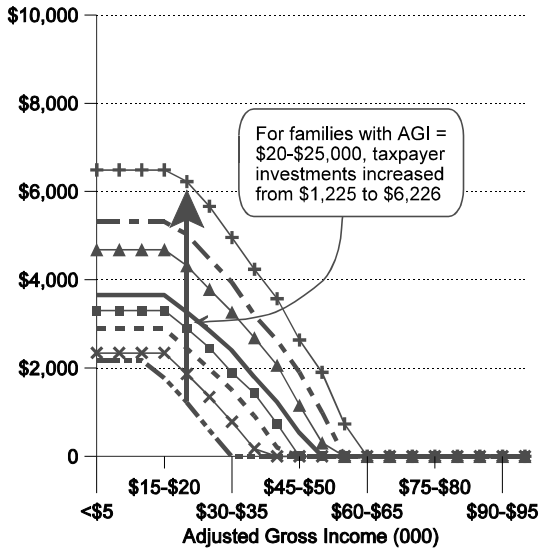
Assigned Taxpayer Responsibilities Increased for Dependent Students



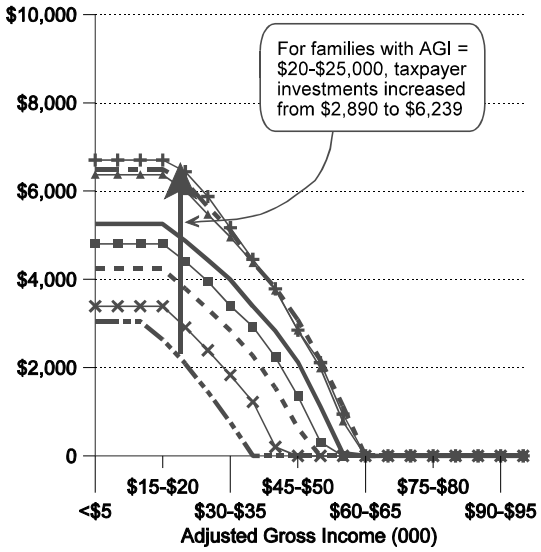
MnSCU Two-Year Colleges



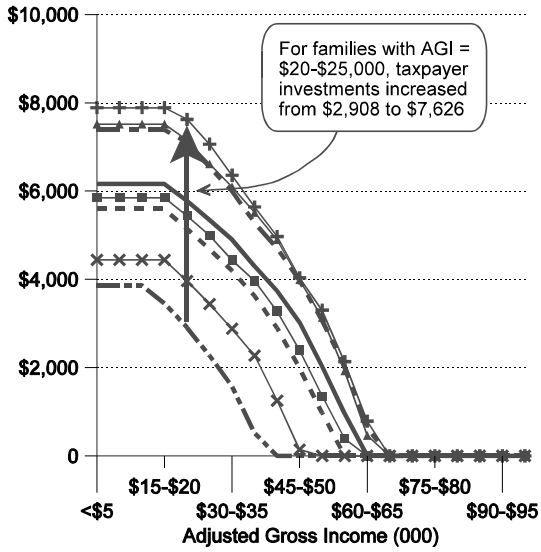
MnSCU Four-Year Universities



Minnesota's Private Two-Year Institutions



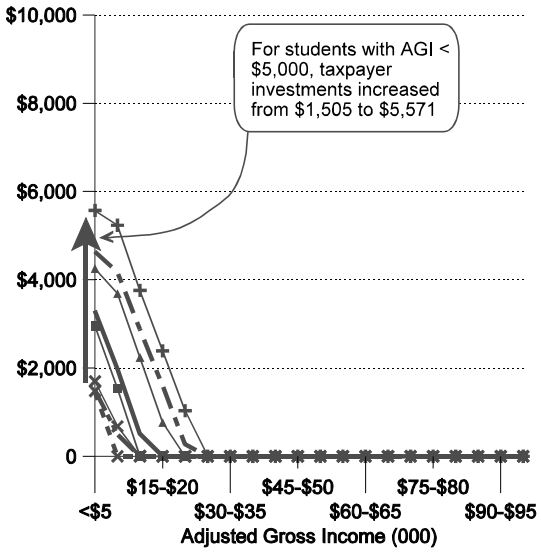
Minnesota's Private Four-Year Institutions



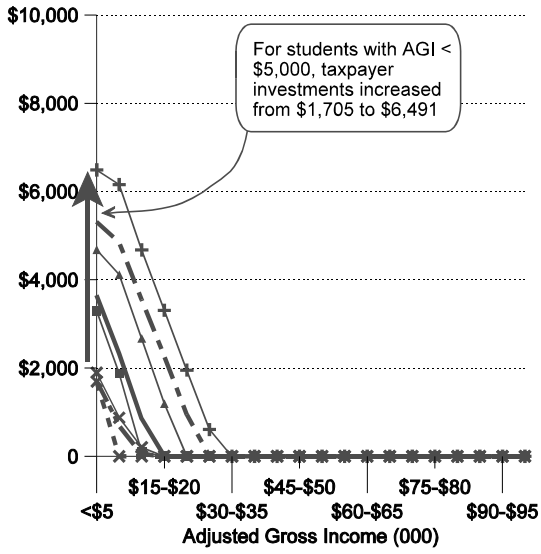
Assigned Taxpayer Responsibilities Increased for Unmarried Students with No Dependents Applying as Independent Students

Fiscal Year 2007
Fiscal Year 2004
Fiscal Year 2001
Fiscal Year 1998
Fiscal Year 1995
Fiscal Year 1992
Fiscal Year 1989
Fiscal Year 1986

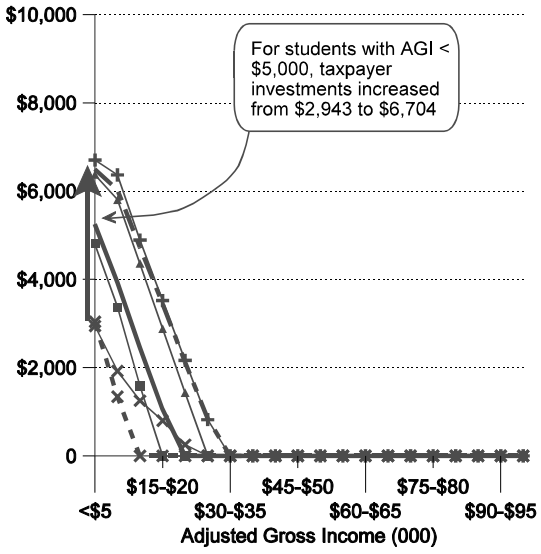
MnSCU Two-Year Colleges



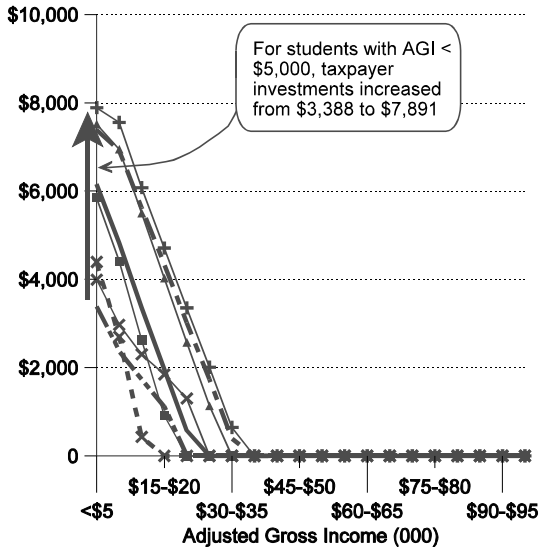
MnSCU Four-Year Universities



Minnesota's Private Two-Year Institutions



Minnesota's Private Four-Year Institutions



Summary

In practice, the Minnesota Legislature and Governor, consciously set payment responsibilities for students, families and taxpayers in the Design for Shared Responsibility. Currently they have set the Assigned Student Responsibility at 46 percent of the Recognized Price of Attendance. They have set the Assigned Family Responsibilities, for all families at a fraction of what the Federal Government expects families to pay. And last, but not least, they have set Assigned Taxpayer Responsibilities as Federal Pell Grants, if any, first and Minnesota State Grants second. In setting payment responsibilities, the Legislature and Governor maintain policy control over who pays what portion of the Recognized Price of Attendance.

The Design for Shared Responsibility is robust and assigns all of the Recognized Price of Attendance to students, families and, if necessary, to taxpayers. The Design for Shared Responsibility distributed prices in 1986 and 2007 among students, families, and taxpayers, as shown on the chart on the next page.

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

Fiscal Year 1986 **Fiscal Year 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.

Endnotes

1. *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).

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.

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

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 lifetimes.

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

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)]

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

11. *Minnesota Statutes 2006* 136a.101 subdivision 5a.

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

13. See Carnegie Council (1979), especially pages 160-163.

14. *Minnesota Statutes 2006* 136a.121 subdivision 7.

Minnesota Policy Prior to the Design for Shared Responsibility

Staff Background Paper

Prepared by:
Staff of the Minnesota Office of Higher Education

December 21, 2007

Contents

Background

The Design for Shared Responsibility provides the policy foundation of the Minnesota State Grant Program. It traces its roots back to the Carnegie Council on Policy Studies in Higher Education (1979) recommendation for changes in federal student aid policies.

> (The 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 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]

- Average Cost Funding, the methodology used to adjust the instructional budget base for enrollment changes.

- Uniform Cost-Related Tuition Policy.

- Revised tuition reciprocity arrangements.

- Management authority of governing boards clarified and strengthened.

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 post-secondary 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 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* with regard to Minnesota State Grants as follows:

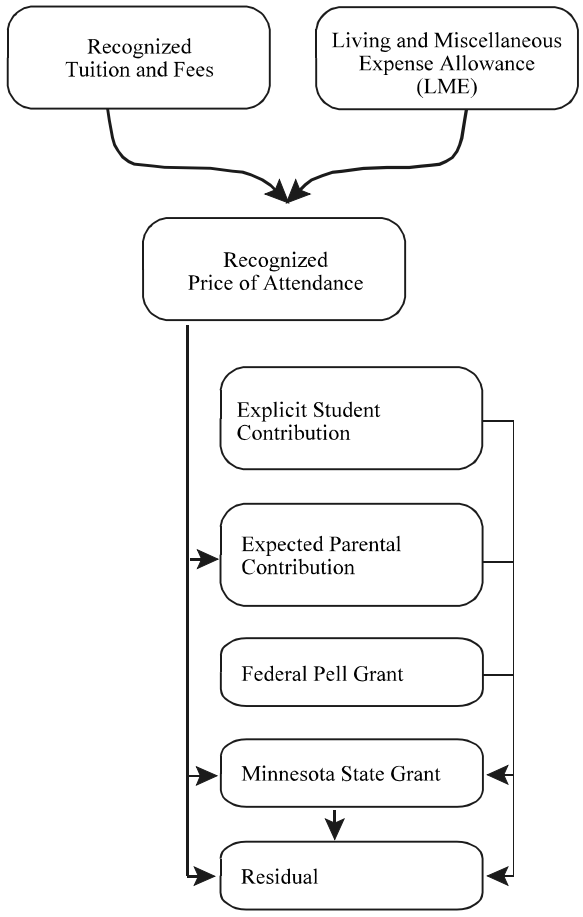
> The 1983 Minnesota Legislature, in approving its comprehensive package of higher education policies, adopted a major redesign of the State Scholarship and Grant Program for implementation in the 1983-84 school year.[3] ... The new policy, the Design for Shared Responsibility, is intended to promote 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).
>
> (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 paper 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 paper. 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.

Prior Model Used to Calculate Minnesota State Grants



The Prior Model is shown on the flow chart on this page. Charts on the next page 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 the next page.[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

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

1
Explicit Student Contribution

2
Addition of Expected Parental Contribution

3
Addition of Federal Pell and Minnesota State (without Award Maximum) Grants

4
Addition of Federal Pell and Minnesota State (with Award Maximum) Grants

based on Uniform Methodology, a forerunner to today's Federal Need Analysis. To the right of the point that the recognized price is fully covered by the assignment to students and families, the assignment to parents remained constant.

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 prior 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% of difference.[7] This resulted in combined awards as shown in panel 3 on the prior page.

Minnesota State Grants were constrained further by a maximum award of $1,050 in Fiscal Year 1983.[8] In panel 4 on the prior 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 prior page, this rationing feature was not included.

Implicit and Explicit Student Payment Assignments for Dependent Students

In the Prior Model, students from the left side 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.

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 Living and Miscellaneous Expense Allowance used in Fiscal 2007.

Price of Attendance, Fiscal Year 2007

Students Attending	Posted Tuition and Fees	Living and Miscellaneous Expense Allowance	Price
Minnesota Private Four-Year Institutions	$19,476	$6,065	$25,541
Minnesota Private Two-Year Institutions	$11,625	$6,065	$17,690
University of Minnesota	$9,448	$6,065	$15,513
Minnesota State Four-Year Universities	$5,955	$6,065	$12,020
Minnesota State Two-Year Colleges	$4,252	$6,065	$10,317

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

1
Explicit + Implicit Student Contributions

2
Explicit + Implicit Student Contributions as a Percent of Recognized Price

3
Expected Parental Contribution

4
Federal Pell and Minnesota 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 of the Design for Shared Responsibility*. 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 post-secondary 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 post-secondary 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' post-secondary 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 Design for Shared Responsibility 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 left hand side of the income spectrum.

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

1
Assigned Student Responsibilities

2
Addition of Assigned Family Responsibilities

3
Addition of Assigned Taxpayer Responsibilities

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 Four-Year Institutions	$19,476	$8,547	$10,929
Minnesota Private Two-Year Institutions	$11,625	$6,349	$5,276
University of Minnesota	$9,448	$9,397	$51
Minnesota State Four-Year Universities	$5,955	$5,955	$0
Minnesota State Two-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.

Recognized Price of Attendance, Fiscal Year 2007

Students Attending	Recognized Tuition and Fees	Living and Miscellaneous Expense Allowance	Recognized Price
Minnesota Private Four-Year Institutions	$8,547	$6,065	$14,612
Minnesota Private Two-Year Institutions	$6,349	$6,065	$12,414
University of Minnesota	$9,397	$6,065	$15,462
Minnesota State Four-Year Universities	$5,955	$6,065	$12,020
Minnesota State Two-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 Assignments of Payment Responsibilities Across Prices of Attendance

1
Assigned Student Responsibilities

2
Assigned Student Responsibilities as a Percent of Recognized Price

3
Assigned Family Responsibilities

4
Assigned Taxpayer Responsibilities

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 Assignments of Payment Responsibilities

1
Assignments to Students

2
Assignment to Parents

3
Combined Federal Pell and Minnesota State Grants

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 post-secondary 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]

References

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Minnesota Higher Education Coordinating Board (1982c). *An Overview of the Design for Shared Responsibility in Minnesota's Financial Aid System* (Author: St. Paul, MN).

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Minnesota Higher Education Coordinating Board (1985b) *Work Opportunities for Students* (Author: St. Paul, MN).

Minnesota Higher Education Coordinating Board (1985c) *The Cost of Attendance in the State Scholarship and Grant Program* (Author: St. Paul, MN).

Endnotes

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

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

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

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.

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).

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

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.

Benchmarks for Setting Tuition and Fee Maximums

Staff Background Paper

Prepared by:
Staff of the Minnesota Office of Higher Education

February 15, 2008

Contents

Introduction

In another paper, *Overview of the Design for Shared Responsibility*, the role of Tuition and Fee Maximums were described. This paper identifies and describes three benchmarks as potential guides to policymakers in setting the Tuition and Fee Maximums.

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 Statutes defines 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.

Potential Benchmarks

Minnesota Statute does not provide policy guidance for setting Tuition and Fee Maximums. Currently they are set 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.

- Instructional Spending Per Student at Public Institutions
- Posted Tuition and Fees at Public Institutions
- Taxpayer Spending Per Student at Public Institutions

1. Instructional Spending

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 costs at two campuses as reported in the University's cost study.[2] From 1988-1991, they were benchmarked to undergraduate per student instructional spending as reported by Minnesota's public postsecondary systems in the Governor's biennial budget recommendations using an Average Cost Funding methodology.[3] Instructional spending per student, by level of instruction, was the sum of instructional spending from state appropriations and student tuition.

Why was undergraduate instructional spending per student used as a benchmark for setting the Tuition and Fee Maximums? The rationale for using instructional spending as a benchmark was never documented. 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 were no longer reported in the Governor's biennial budget recommendations with the demise of Average Cost Funding and, therefore, were no longer available.

2. Posted Tuition and Fees

There has not been an established benchmark for setting the Tuition and Fee Maximums since the demise of Average Cost Funding. The Minnesota Legislature with the approval of the Governor has set Tuition and Fee Maximums in the appropriations process. Legislative staff has suggested benchmarking the Tuition and Fee Maximums to posted tuition and fees at public 2 and 4-year institutions.

Why would posted tuition and fees at public institutions be considered a benchmark for setting the Tuition and Fee Maximums? As with instructional spending, the rationale for using posted tuition and fees at public institutions to benchmark the Tuition and Fee Maximums have not been

documented. 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 Investment

Taxpayer spending per undergraduate students 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. For example, the 4-Year Tuition and Fee Maximum could be set such that:

$Pell + SG_4 < Pell + SG_{um} + App_{um}$ for all students.

Where:

Pell = Federal Pell Grant for which the student qualifies, if any.

SG_4 = Minnesota State Grant for which the student would qualify if attending a private 4-year institution and subject to the Four-Year Tuition and Fee Maximum

SG_{um} = Minnesota State Grant for which the student would qualify if attending the University of Minnesota

App_{um} = Appropriations per student for students attending the University of Minnesota.

Why might taxpayer spending per student at public institutions be considered as a benchmark for setting the Tuition and Fee Maximums? If taxpayers were willing to spend as much to assist students attending private institutions as to assist similar students attending public institutions this benchmark has creditability. This assumes there are no demonstrated differences among institutions in enhancing human capital.

Taxpayers currently spend more if students chooses public institution, as shown on the next page. Specifically, taxpayer spending is 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 were from the Office of Higher Education for Fiscal Year 2007. Per student taxpayer appropriations for instruction reported by MnSCU and the University of Minnesota were as follows:

- For Minnesota State Colleges and Universities, 102% of Recognized Tuition & Fees.[4]
- For the University of Minnesota, $4,277.[5]

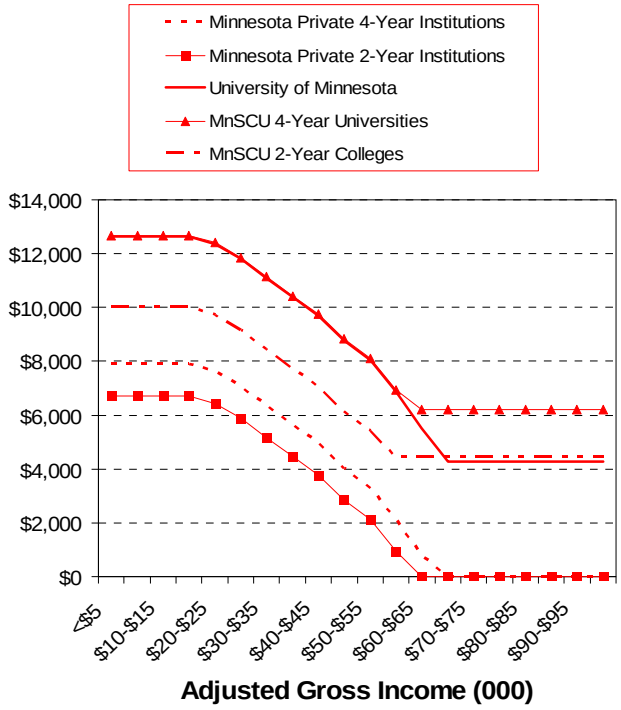
Taxpayer appropriations per student do not include student paid tuition and fees, capital costs covered by the state through the bonding process or any other taxpayer investments.

The bottom panels on the previous page include taxpayer investments in students through the Federal Hope Tax Credits based on Fiscal Year 2006 Internal Revenue Service rules.[6]

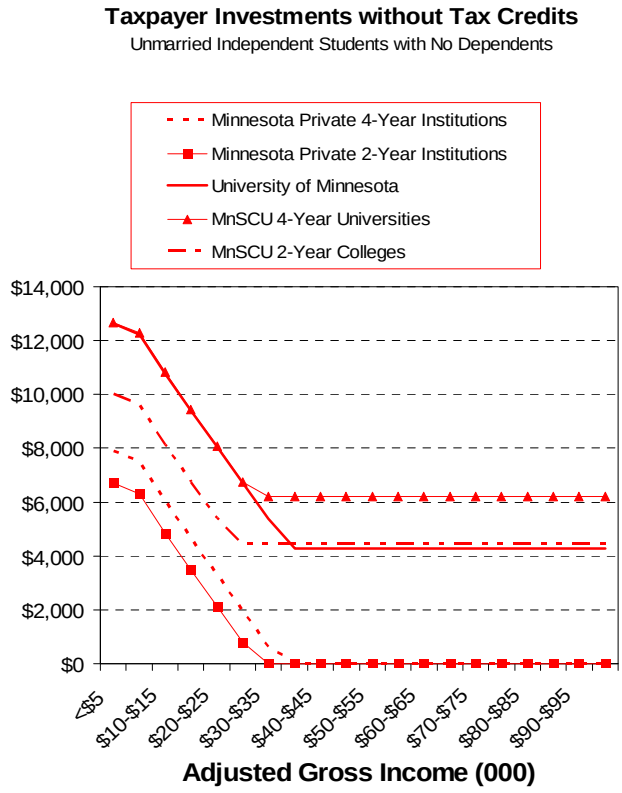
Benchmarking the Tuition and Fee Maximums to taxpayer spending on students attending public institutions, using the above formula, would increase the Tuition and Fee Maximums so taxpayer spending for students on the left hand side of the income spectrum would be similar for similar students attending similar public and private institutions. In no instances would benchmarking the Tuition and Fee Maximums to taxpayer spending on students attending private institutions exceed taxpayer spending on students attending public institutions, with or without Federal Tax Credits and/or deductions.[7]

Taxpayer Spending per Student, Fiscal Year 2007

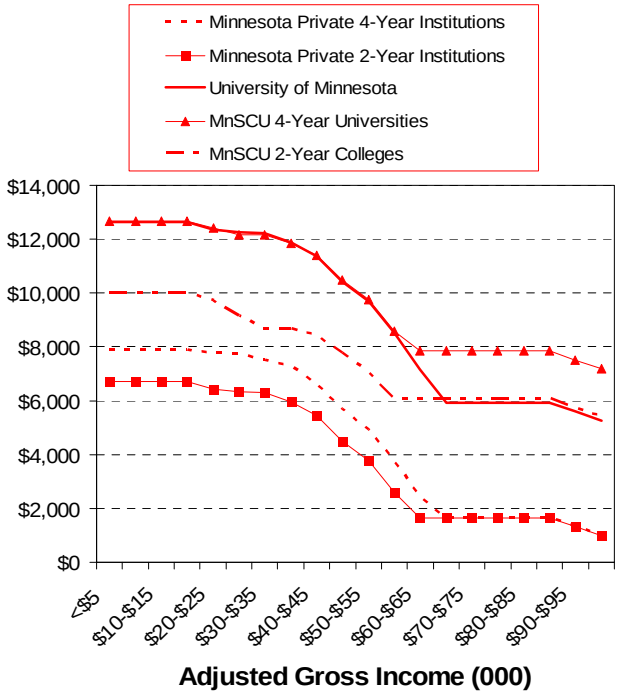
Taxpayer Investments without Tax Credits
Dependent Students



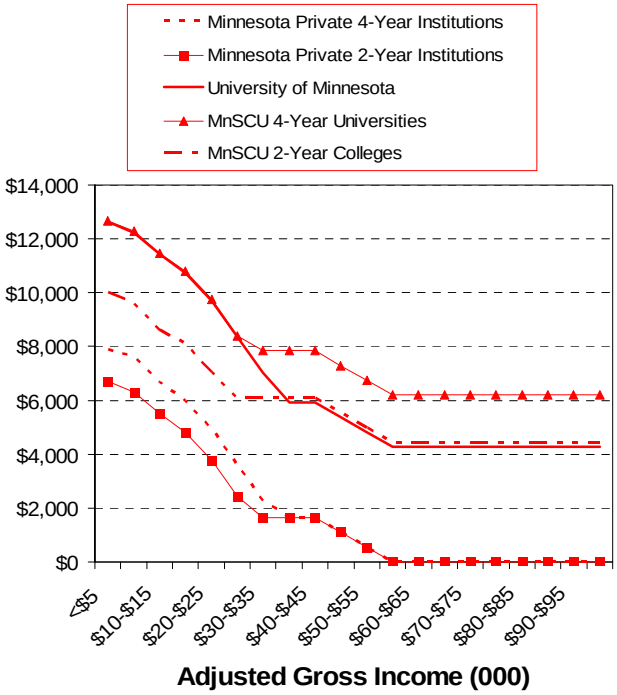
Taxpayer Investments without Tax Credits
Unmarried Independent Students with No Dependents



Taxpayer Investments with Federal Hope Tax Credits
Dependent Students



Taxpayer Investments with Federal Hope Tax Credits
Unmarried Independent Students with No Dependents



Endnotes

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. The two campuses were University of Minnesota Morris and University of Minnesota Duluth.

3. Preliminary cell values were used since the final values were typically not available until after the Governor submitted the budget.

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

5. 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 website as: "Tuition pays for approximately 67% 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)].

6. For dependent students, it was assumed that the parents filed jointly, claimed 4 exemptions, and used the standard deduction. For unmarried independent students, it was assumed that they had household size = 1, and used the standard deduction.

7. Federal Hope Tax Credits provide the most postsecondary education tax dollar benefits to filers. Federal Lifetime Tax Credits are claimed by students 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. .

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

Staff Background Paper

Prepared by:
Staff of the Minnesota Office of Higher Education

December 21, 2007

Contents

Introduction

In an earlier paper, *Overview of the Design for Shared Responsibility*, the role of the Living and Miscellaneous Expense Allowance, LME, in defining the Recognized Price and in the calculation of Minnesota State Grants was described. A LME is intended to recognize frugal students' costs of attending in addition to tuition and fees. The LME amounts used to calculate Minnesota State Grants from Fiscal Years 1981 through 2007 are shown in the table to the right.

The question often asked is: To what extent does the Living and Miscellaneous Expense Allowance provides an adequate measurement of the cost of maintaining a frugal but reasonable living standard while attending? The material presented in this paper does not directly answer this question; rather, it provides background information that could be used to determine if further review is needed.

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

The LME Debate

Whether of not to include a LME in the Recognized Price of Attendance is contentious. If included, how to measure 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*. Presumes attendance is a marginal activity in the sense that it does not interfere with students' normal means of paying the price associated with a frugal life style.

- *Relevant and measured as opportunity costs*. Focuses on the loss of income resulting from being unable to participate in the labor market fully (or at all) because of attending a post-secondary institution.

- *Relevant and measured as an offset to income.* Treats living and miscellaneous expenses as a deduction from income in calculating Assigned Family Responsibilities.

- *Relevant and measured as price components*. Explicitly recognize the price of purchasing the items necessary to maintain a frugal to modest life style.

1. Not Relevant

From time to time, including LME in the Recognized Price for Minnesota State Grants is challenged. The implication is tuition and fees are the only relevant price component for students. Those viewing LME as irrelevant usually suggest one or more of the following points of view:

- Students will have to support themselves whether attending or not, so why should the be treated differently when attending than when not attending.

- Attending has a marginal impact on students' time; there is plenty of time to work prior to attending, while attending, on vacation or school breaks in order to pay living expenses.

- Whoever would have supported students while not attending should support them while attending.

2. Relevant and Measured as Opportunity Costs

Opportunity costs are typically used by economists calculating rates of return on students' (and others') investments. This concept often creeps into the language of those trying to understand

young people's decisions regarding investing in post-secondary educations relative to pursuing employment opportunities.

Opportunity costs provide a conceptual measure of the price of attending that reflects the options students have. These are also called foregone earnings. Baum (2004) defines opportunity costs as follows:

> Economists do not measure costs simply in terms of out-of-pocket expenditures. The true cost of an activity includes all of the resources devoted to that activity which could have been used for another purpose. The total cost of attending college includes not just tuition, but also foregone earnings. If a student could be earning $20,000 a year by working full-time but chooses to attend college instead, that $20,000 opportunity cost is part of the real total cost of attending college.
>
> The *opportunity cost* of a particular activity is the best possible alternative to that activity. If you decide to spend the day catching up on work in the office, you sacrifice the time with your family. That sacrifice is the opportunity cost of your work. Students should understand that the total cost of college is greater than the calculated cost of attendance.

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 taken opportunity costs into account. By way of contrast, Sweden historically has recognized students should be able to have the same standard of living as their peers not attending.[1] This comes close to accepting opportunity costs as an appropriate measure of living and miscellaneous expenses.

3. Relevant and Measured as an Offset to Income

Living and miscellaneous expenses, however measured, could be treated as offsets to or deductions from income in the calculation of Assigned Family Responsibilities. Currently, a number of deductions and allowances are embedded in the calculation. This would add one more.

Including LME as deductions in the calculations of Assigned Family Responsibilities recognizes LME as legitimate components of the price of attending. Including LME as deductions in the calculation of Assigned Family Responsibilities does not answer the question of how to measure LME.

The state, in this case, would recognize that covering the living and miscellaneous expenses of students affects families' abilities to pay. Creating a deduction for these expenses impacts ability to pay as currently measured, and as a result, lowers Assigned Family Responsibilities.

4. Relevant and Measured as Price Components

Student financial aid administrators have historically included LME as part of students' price of attendance. In creating Title IV federal financial aid programs, the federal government continued the 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, Minnesota State Grants have included an allowance for living expenses as a price component. Since Fiscal Year 1981, the state has specified the amount to be considered rather than relying on the campuses to set the value for students attending their campus.

The National Association of Financial Aid Administrators (NASFAA, 1993) developed the following set of principles designed to guide campus administrators:

> Student budgets are designed to provide students with an accurate projection of reasonable costs. When costs are understated, students may encounter financial difficulties which may contribute to poor academic performances or withdrawals. If students are aware of unmet needs in advance, they may be able to cover this need by securing alternative funding from other resources prior to the beginning of the academic year . . .
>
> Student expense budgets should reflect reasonable and realistic costs of attending an institution for a given period of time. Properly constructed budgets help ensure equity in aid decisions by allowing the aid administrator to differentiate among students according to their various degrees of aid eligibility.
>
> Student budget construction is a separate function from packaging student financial aid. Inclusion of expenses in a budget does not necessarily imply the ability or willingness of the institution to underwrite the costs using student financial aid funds. Instead, inclusion recognizes the diversity of student expenses whether or not these costs can be met with student financial aid. Student budgets are not intended to be used to attract students by suggesting low cost or to ration financial aid through understated student budgets OR to increase financial aid (especially loan) eligibility by inflating costs. An overstated or understated budget inhibits the accurate planning of expenses by students.
>
> Certain principles guide thoughtful aid administrators in devising student expense budgets. Among these principles are the following:
>
> **Standard budgets**. Aid administrators develop and publish standard budgets that include typical student expenses . . . Standard budgets play a dual role by providing a routine checkpoint in determining aid eligibility and to ensure consistent, equitable treatment of all aid applicants, and by assisting students and their families in financial planning. Standard budgets may also help aid administrators and others within the institution in fiscal planning.
>
> **Comprehensiveness**. Direct educational expenses such as tuition, fees, books and equipment, materials, or supplies required of all students in the same course of study are included in the budget. Directly-related expenses such as room, board, transportation, expenses related to a disability, and dependent care costs should also be included. One fundamental purpose of financial aid is to enable students to pursue their educational objectives with the assurance that their basic financial needs will be addressed.

Reasonableness. The guiding principle in defining any student expense budget is reasonableness. From the earliest days of the financial aid profession, the phrase "modest but adequate" has characterized discussions of student budgets. Following this prescriptive norm, aid administrators generally accommodate a low to moderate standard of living in student expense budgets. The aid recipient is expected to live neither in luxury nor poverty, being to the extent possible, indistinguishable from their non-aided counterparts . . .

Adjustment for individual needs. The use of standard budgets does not imply insensitivity to the needs of individual students. . . . To assist students in effective planning, it is incumbent upon the aid administrator to adjust the budget for individual circumstances even when the institution is unable to fund the additional aid eligibility which may be generated. ...

Time period. A student expense budget acknowledges the reasonable costs necessary for the student to attend the educational institution for a defined period of time correlating to the time frame used to calculate family contribution. ...

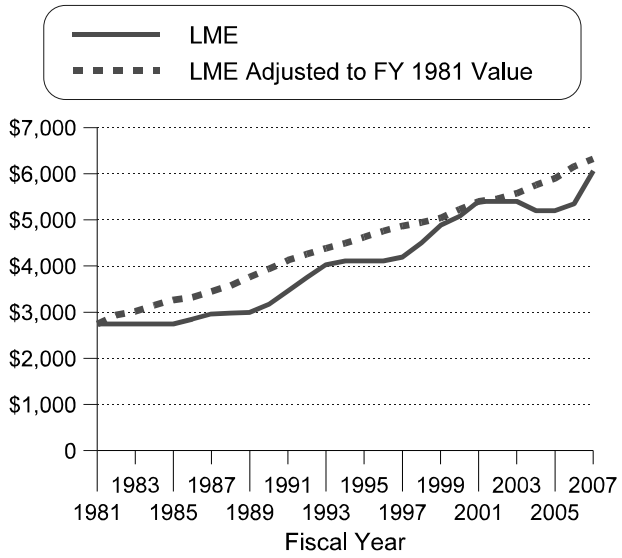
Documentation. Aid administrators are expected to document the student expense budgets that are used in awarding financial aid. ....

Localization. For certain kinds of expenses, local market conditions will influence the definition of reasonable allowance levels. It may be necessary to adopt a budget range rather than a fixed allowance for particular budget components. Costs for housing are especially prone to variance from place to place because of availability. It is necessary to recognize regional and local variations in prices in order that student budgets represent comparable expenses regardless of location. Care should be taken to distinguish the differences attributable to local costs and attributable to personal life-style preferences.

LME Comparisons

This section compares Minnesota's Living and Miscellaneous Expense Allowance to various indices and provides some background for understanding the current LME dollar amount as a measure of a frugal standard of living.

The Living and Miscellaneous Expense Allowance, LME, Compared to Inflation



Inflation defined as the Consumer Price Index.

1. LME Compared to Inflation

One measure of changes in prices consumers is the Consumer Price Index. Minnesota State Grant's LME in Fiscal Year 1981 was $2,750 and was used as the starting point in the chart to the right; although there is no evidence the 1981 value was a reasonable amount. The 1981 value was adjusted each year by the Consumer Price Index to obtain the line shown in the chart to the right.

The Fiscal Year 2007 value of $6,065 is somewhat less than the 1981 value adjusted for inflation of $6,324.

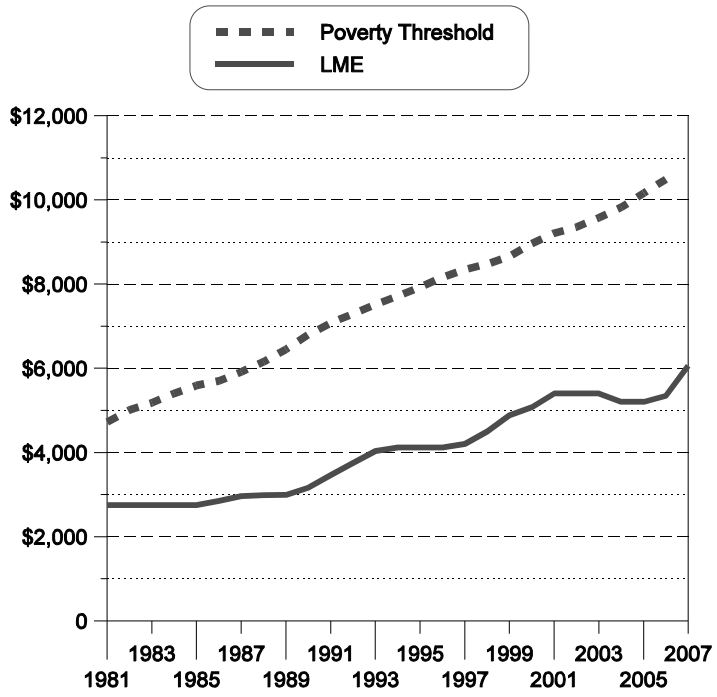
2. LME Compared to the Poverty Threshold

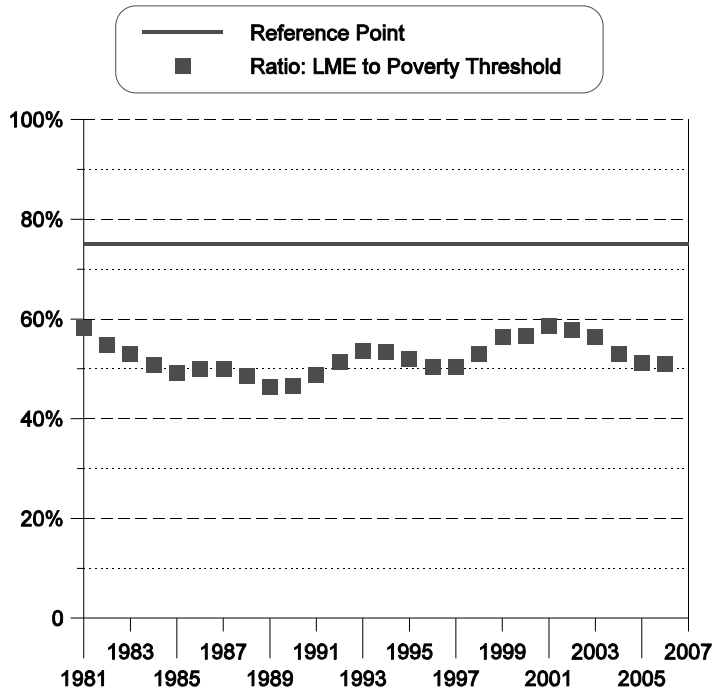
A common measure of the living standard of frugal individuals is the poverty threshold used in the calculation of many government benefits. The poverty threshold is determined by the Census Bureau and reported annually. For purposes of this comparison, the poverty threshold for a single individual under age 65 was used.[2] The poverty threshold has grown continually from $4,729 to $10,488 over the period, 1981 to 2006. The values of the poverty index and LME are shown on the upper panel to the right.

A difference between the Living and Miscellaneous Expense Allowance and the poverty threshold is that the LME is intended to cover the period of attendance during a 9-month period 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 of 75 percent the poverty threshold is used in the chart in the lower panel. The LME has never been at this reference point. LME relative to the poverty threshold decreased from 58% in 1981 to 46% in 1989; the ratio then increased to 59% in 2001; and subsequently, dropped to 51% in 2006, as shown on the chart.

Living and Miscellaneous Expense Allowance, LME, and Poverty Thresholds





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

3. LME Compared to Average Undergraduate Budgets

Average budget 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 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 were $10,022 to $11,131. These are comparable to the LME value of $6,065 used to calculate Minnesota State Grants in Fiscal Year 2007. Prices of Attendance including tuition and fees are shown on the right panel on the next page.

Average Undergraduate Prices of Attendance, 2006-2007

Components of Institutions' Allowance for "Other Expenses"

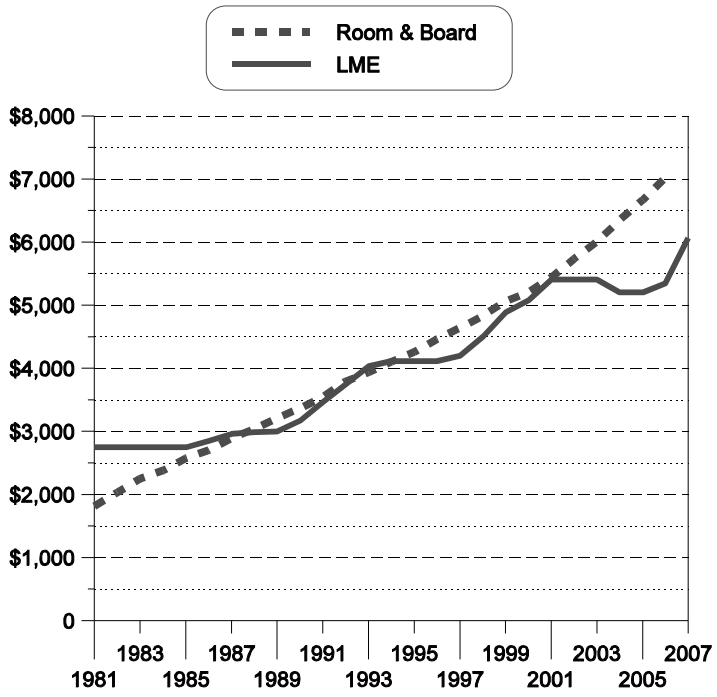
Total Institutional Posted Prices

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

4. 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 state-wide LME was established, the average room and board rate reported by the U.S. Department of Education was $1,813, as shown on the upper panel to the right.[3] The LME used for calculating Minnesota State Grants that year was $2,750. In Fiscal Year 2006, the average room and board rate was $7,027 compared to the LME of $5,350.[4]

Average National Room & Board Rates and LME



Source: U.S. Department of Education. *2006 Education Digest*, Table 319

5. 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.

A. 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.[5] 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, for example, 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 $6,056, as shown in the fourth column in the next table. The 14 with lower rates are shown in the third column.

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

Institution	2006-2007 Room and Board Rate	If Less Than LME ($6,065), Amount Less	If More Than LME ($6,065), Amount More
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 Website

B. Adding A Book and Supply Allowance

The price of attending includes more than room and board. Books and supplies have become a major expense of a post-secondary education. Although each student faces a unique set of book and supply requirements, for purposes of this section, an annual book and supply estimate of $935 was used, 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 the recognized LME plus book & 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	Books & Supplies + Book & Supply Allowance	If Less Than LME + Book Allowance ($7,000), Amount Less	If More Than LME + Book 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)	

Institution	Books & Supplies + Book & Supply Allowance	If Less Than LME + Book Allowance ($7,000), Amount Less	If More Than LME + Book Allowance ($7,000), Amount More
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)	
Southwest Minnesota State University	$7,175		$1,110
St Cloud State University	$6,185		$120
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 Website
Book & Supply Allowance, College Board, Trends in College Pricing (2006)

C. 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

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

6. 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.[6]

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.

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U.S. Department of Education. *IPEDS College Opportunities On-Line (COOL) Website* (http://nces.ed.gov/ipeds/cool/).

Endnotes

1. See Johnstone (1986) and Hansson (1988).

2. 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.

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

4. Fiscal Year 2007 data are not yet available for the national rate.

5. See http://nces.ed.gov/ipeds/cool/ [Accessed March 27, 2007].

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

Covering Assigned Student Responsibilities

Staff Background Paper

Prepared by:
Staff of the Minnesota Office of Higher Education

December 21, 2007

Contents

Introduction

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

In the remainder of this paper, options for financing Assigned Student Responsibilities are examined in more detail. The first option examines the number of hours per week students would need to be employed to cover all of their Assigned Student Responsibilities. The second option 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 not prescriptive but illustrative of the feasibility of using employment, borrowing, or a combination of both for financing Assigned Student Responsibilities. The results provide data for the reader to make judgments of the reasonableness and rigor of current assignments. Further, these analyses follow the implications of the three options from Fiscal Years 1998 through 2007.

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.

1. Covering Assigned Student Responsibilities with Earnings from Minimum Wage Jobs

The number of hours of employment needed to cover Assigned Student Responsibilities were calculated based on: target net earnings determined by wage rates, 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

	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 FICA and Medicare Tax with 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.

A. 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 the next page.

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 6 to 25 hours per week in Fiscal Year 1998 and 9 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.

B. 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 2005, 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 6 to 21 hours per week in Fiscal Year 1998 and 9 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.

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

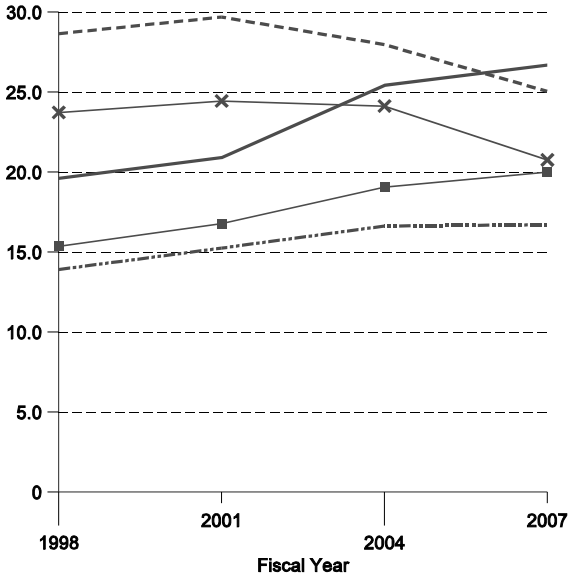
Instead of using minimum wage rates as fixed in law, the mean Minnesota State Work Study wage rates were used in this section to show what is occurring in the labor markets. These rates are shown in the next table and were used to calculate target net earnings.[1]

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

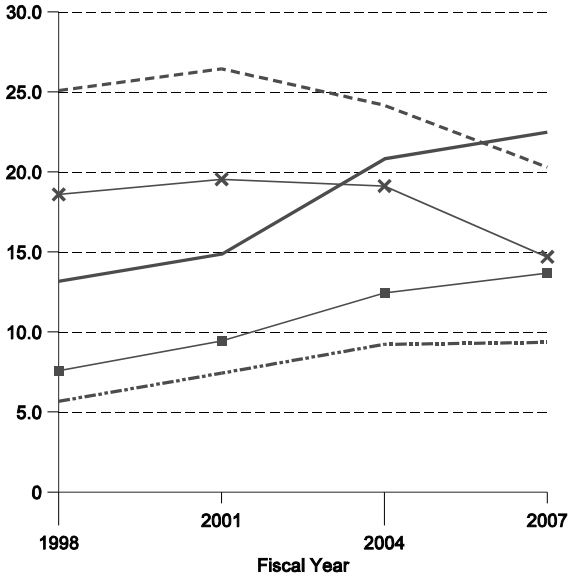
- Minnesota's Private 4-Year Institutions
- Minnesota's Private 2-Year Institutions
- The University of Minnesota
- MnSCU 4-Year Institutions
- MnSCU 2-Year Institutions

Dependent Students

50 Weeks at Same Number of Hours per Week

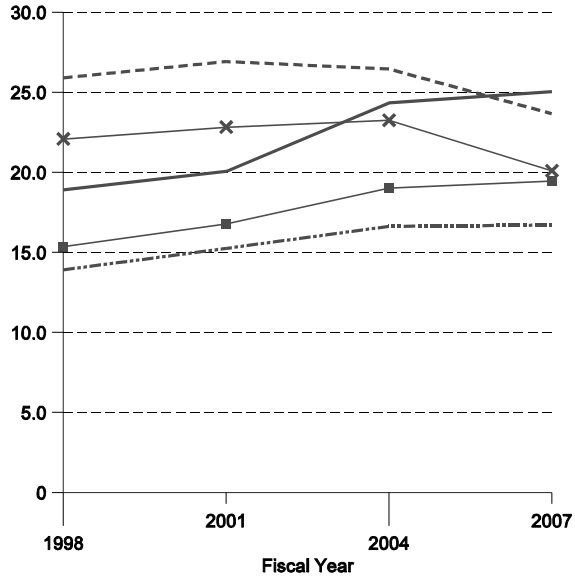


38 Weeks after Working Full-Time for 12 Weeks

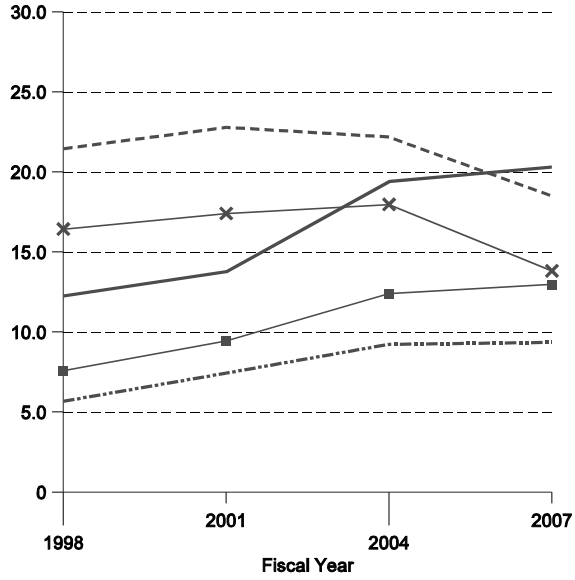


Unmarried Independent Students with No Dependents

50 Weeks at Same Number of Hours per Week



38 Weeks after Working Full-Time for 12 Weeks



Mean Minnesota Work Study Wage Rates

	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

A. 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 3 to 19 hours per week in Fiscal Year 1998, at the prices used in this analysis and 4 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.

B. Unmarried Independent Students with No Dependents Students

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 3 to 19 hours per week in Fiscal Year 1998 and 4 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.

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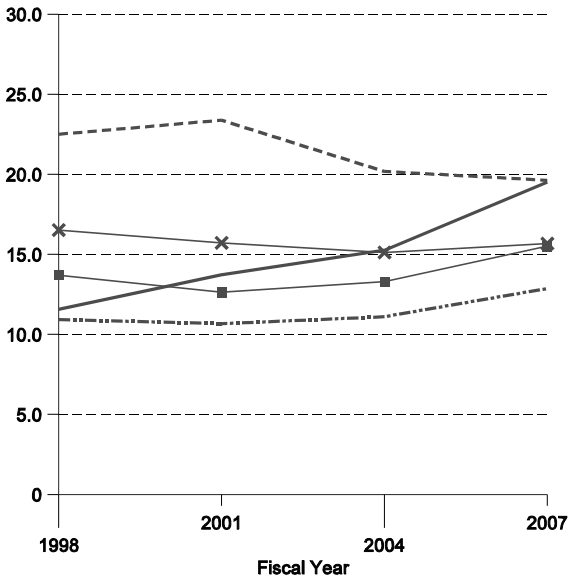
Average Work Week Needed to Pay Assigned Student Responsibilities at Mean Minnesota Work Study Wage

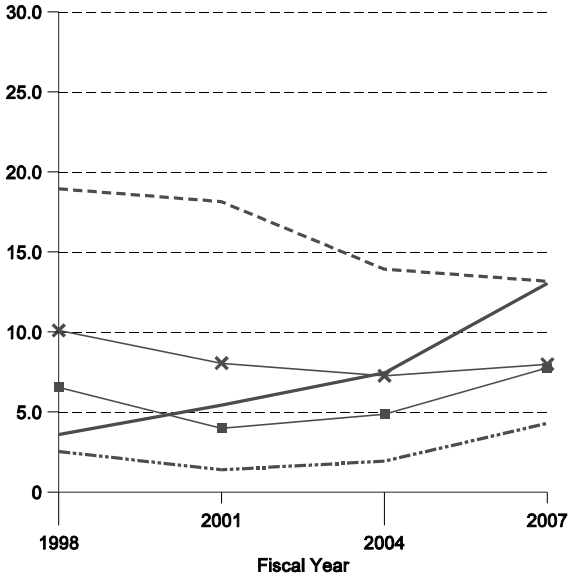
- Minnesota's Private 4-Year Institutions
- Minnesota's Private 2-Year Institutions
- The University of Minnesota
- MnSCU 4-Year Institutions
- MnSCU 2-Year Institutions

Dependent Students

50 Weeks at Same Number of Hours per Week

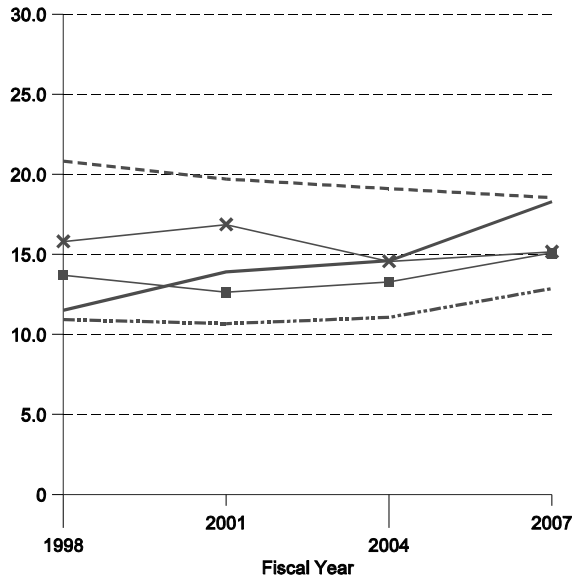


38 Weeks after Working Full-Time for 12 Weeks

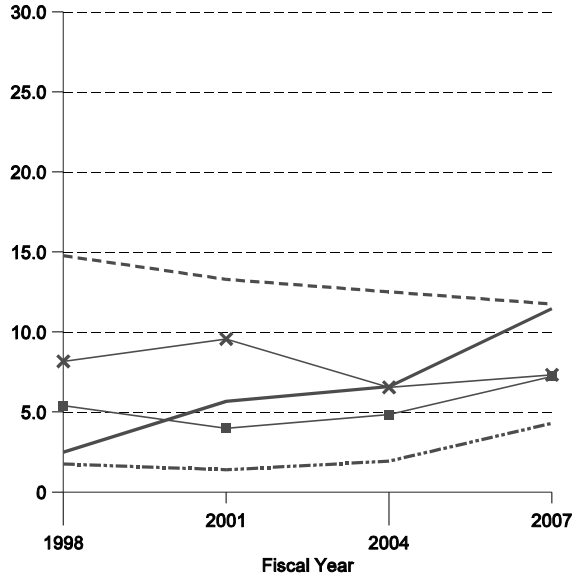


Unmarried Independent Students with No Dependents

50 Weeks at Same Number of Hours per Week



38 Weeks after Working Full-Time for 12 Weeks



Paying Assigned Student Responsibilities with Future Income by Borrowing

This section of the paper describes how much students would have to borrow to pay their Assigned Student Responsibilities. By borrowing, students effectively defer paying for their Assigned Student Responsibilities until after they complete their educations. The results are based on one year of borrowing.

1. 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 in the next table.

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. 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 off.[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, ranged from $46 to $85, as shown on the bottom left panel on the next page.

- Monthly payments for an Unsubsidized Federal Stafford Loan, ranged from $45 to $86, as shown on the bottom right panel on the next page.

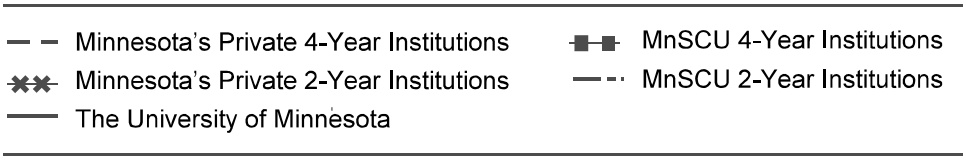
For Fiscal Year 2007:

- Monthly payments for a Subsidized Federal Stafford Loan, ranged from $53 to $79, as shown on the bottom left panel on the next page.

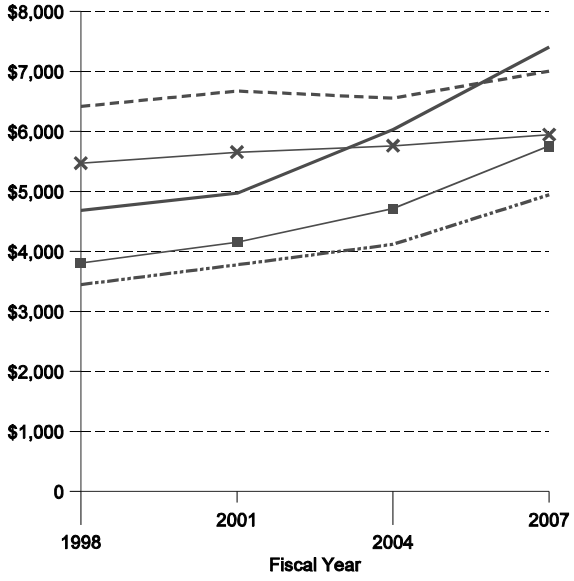
- Monthly payments for an Unsubsidized Federal Stafford Loan, ranged from $56 to $84, as shown on the bottom right panel on the next page.

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.

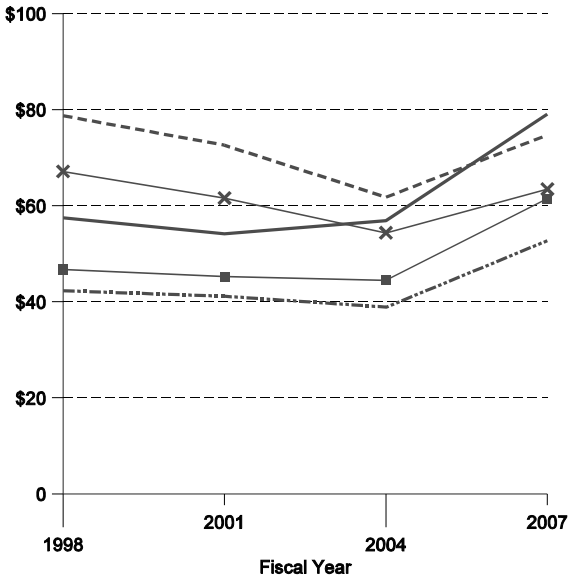
Borrowing to Cover Assigned Student Responsibilities



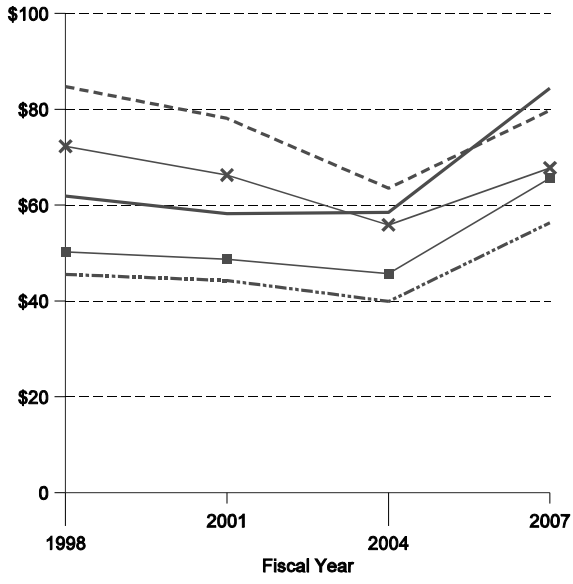
Amount Borrowed



Monthly Payments – Subsidized Loans



Monthly Payments – Unsubsidized Loans

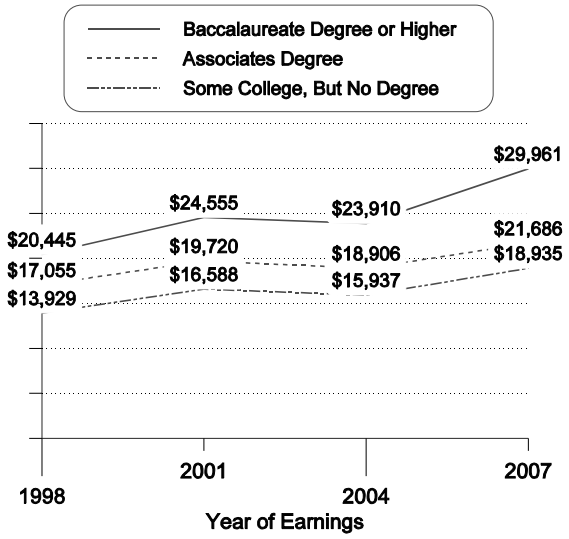


3. Payment Efforts

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 upper panel on the next 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 bottom 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.

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



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

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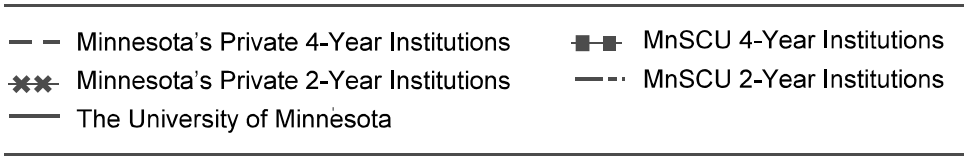
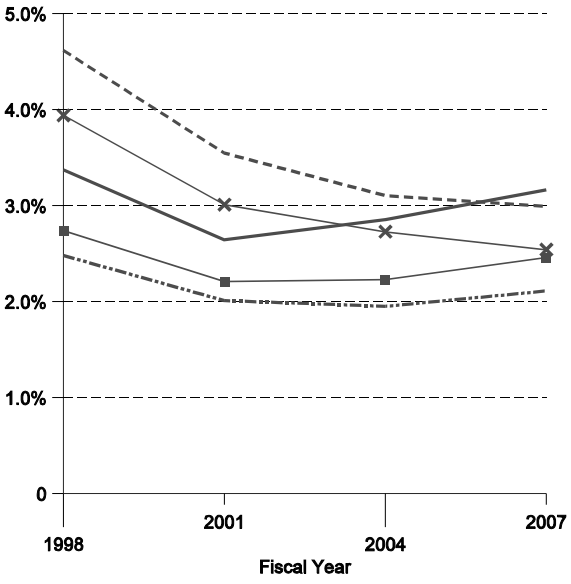
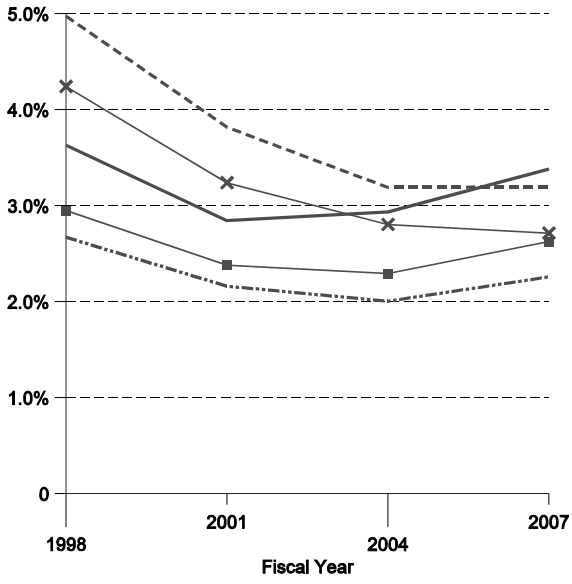
Monthly Payments as a Percent of Income of Americans Age 20 to 25 with Baccalaureate Degree or Higher



Subsidized Loans



Unsubsidized Loans



Paying Assigned Student Responsibilities with a Mix of Current and Future Incomes

This section of the paper describes a scenario in which students mix 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.

1. Covering Assigned Student Responsibilities with Earnings from Minimum Wage Jobs

A. 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 0 to 12 hours per week in Fiscal Year 1998 and 0 to 8 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 0 to 3 hours per week in Fiscal Year 1998 and 0 to less than 1 hour per week in Fiscal Year 2004, at the prices used in this analysis, as shown on the lower left panel on the next page.

B. 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 0 to 3 hours per week in Fiscal Year 1998 and 0 to 8 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.

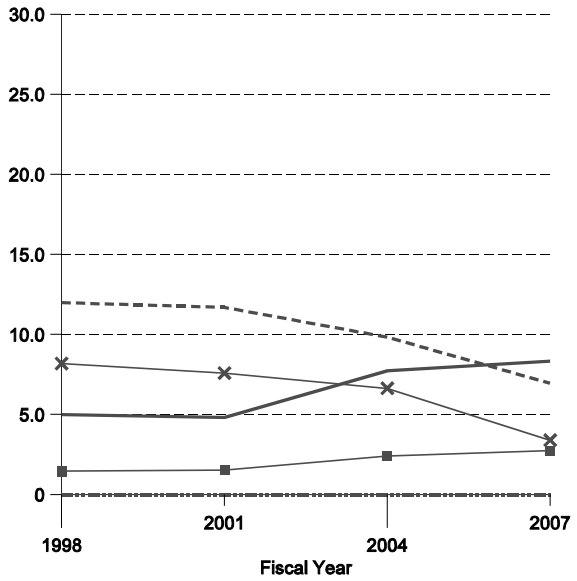
In the second case, the average work week required by unmarried independent students to pay Assigned Student Responsibilities by working the same number of hours per week for 38 weeks per year combined with 12 weeks of full-time employment ranged from 0 to 3 hours per week in Fiscal Year 1998 and 0 hours 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

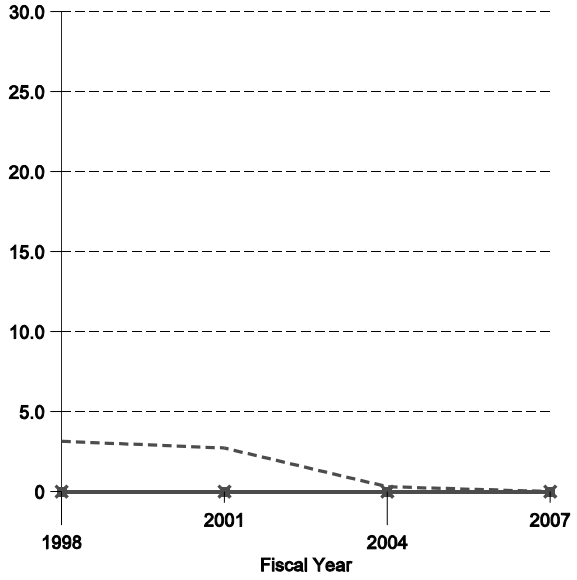
Minnesota's Private 4-Year Institutions
Minnesota's Private 2-Year Institutions
The University of Minnesota
MnSCU 4-Year Institutions
MnSCU 2-Year Institutions

Dependent Students

50 Weeks at Same Number of Hours per Week

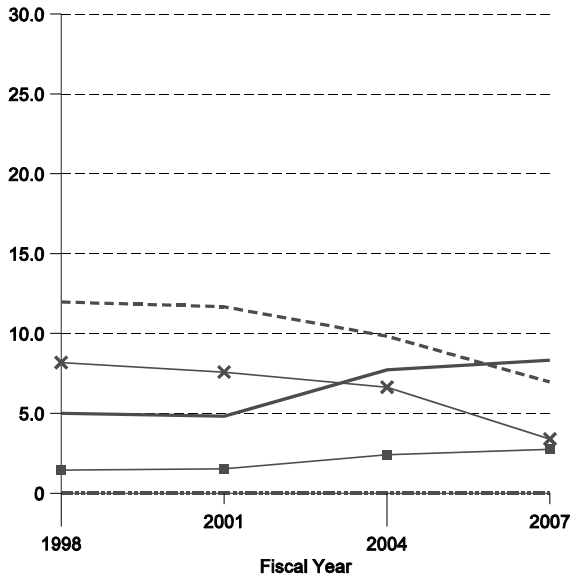


38 Weeks after Working Full-Time for 12 Weeks

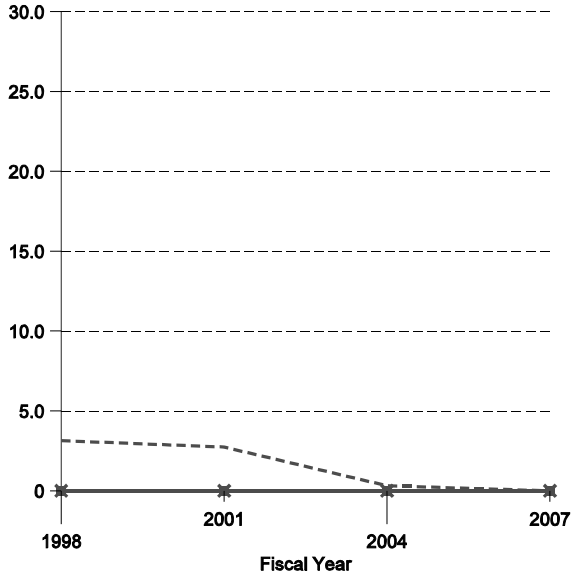


Unmarried Independent Students with No Dependents

50 Weeks at Same Number of Hours per Week



38 Weeks after Working Full-Time for 12 Weeks



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

A. 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 0 to 10 hours per week in Fiscal Year 1998, at the prices used in this analysis and 0 to 6 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 work same number of hours per week for 38 weeks per year combined with 12 weeks of full-time employment were 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 0 to 0.1 hours per week in Fiscal Year 1998 and 0 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.

B. 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 0 to 10 hours per week in Fiscal Year 1998 and 0 to 6 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 0 to 0.1 hours per week in Fiscal Year 1998 and 0 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.

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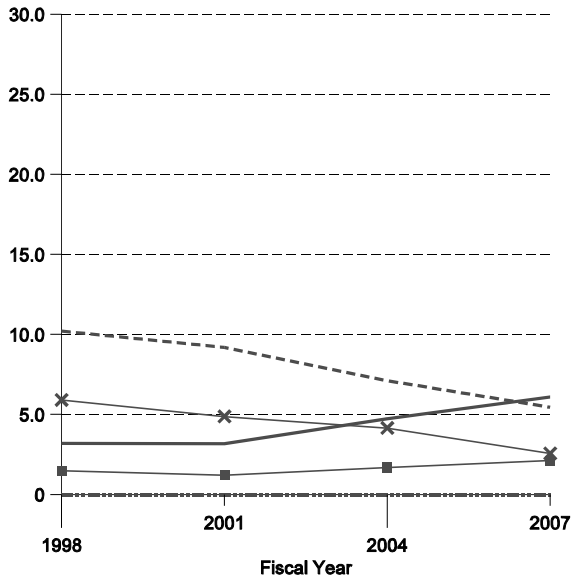
Average Work Week Needed to Pay Assigned Student Responsibilities at Mean Minnesota Work Study Wage

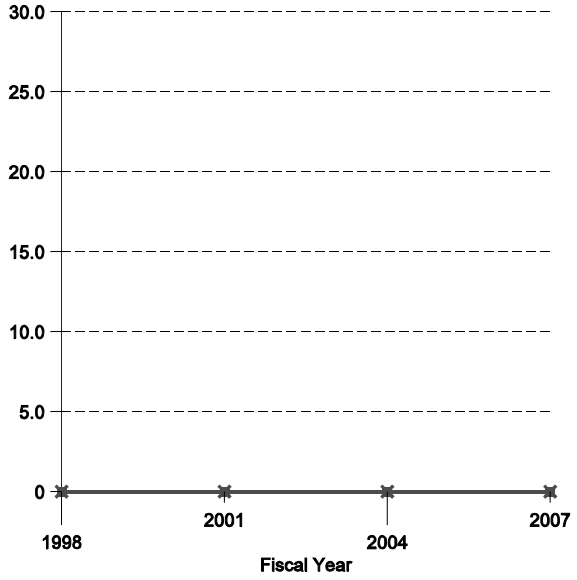
Minnesota's Private 4-Year Institutions
Minnesota's Private 2-Year Institutions
The University of Minnesota
MnSCU 4-Year Institutions
MnSCU 2-Year Institutions

Dependent Students

50 Weeks at Same Number of Hours per Week

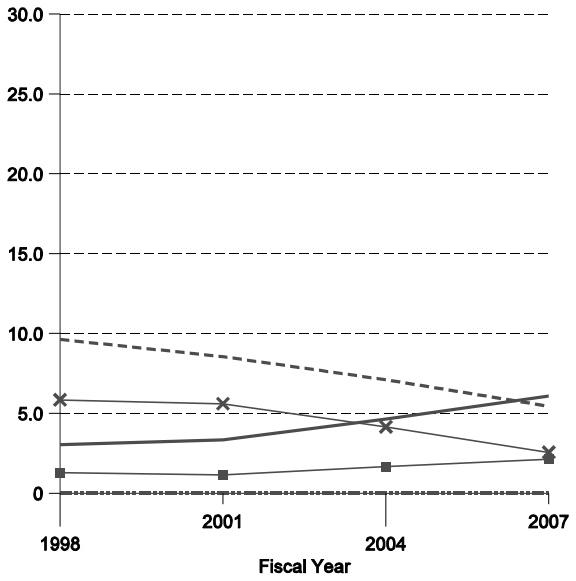


38 Weeks after Working Full-Time for 12 Weeks

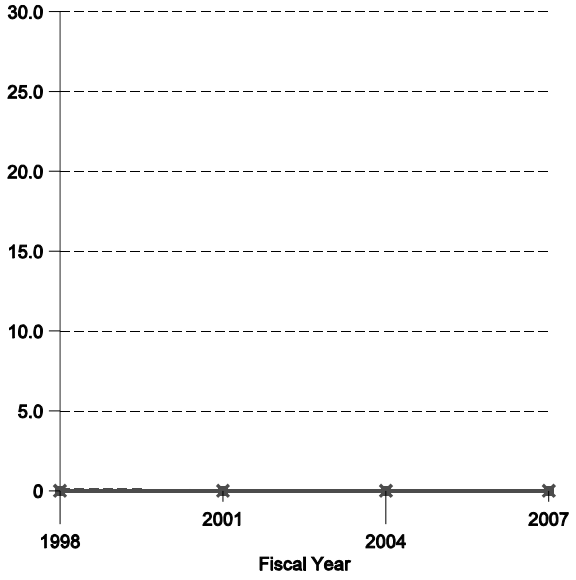


Unmarried Independent Students with No Dependents

50 Weeks at Same Number of Hours per Week



38 Weeks after Working Full-Time for 12 Weeks



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 worths.

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 2 and 4-year institutions and Minnesota Private 2-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 4-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 2 and 4-year institutions and Minnesota Private 2-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 4-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	Mix of Current and Future Income
50 Weeks at Same Number of Hours per Week	**50 Weeks at Same Number of Hours per Week**
38 Weeks after Working Full-Time for 12 Weeks	**38 Weeks after Working Full-Time for 12 Weeks**

References

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

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

Endnotes

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

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.

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

Assigned Family Efforts of Families of Dependent Students

Staff Background Paper

Prepared by:
Staff of the Minnesota Office of Higher Education

December 21, 2007

Contents

Introduction

This paper analyzes families' payment assignments for their dependent students using the Current Minnesota State Grant policy for the period, Fiscal Years 1986-2007. In an earlier paper, *Overview of the Design for Shared Responsibility*, Assigned Family Responsibilities were defined and their role in determining Minnesota State Grants were described

This paper analyze Assigned Family Responsibilities as Assigned Family Efforts. Assigned Family Efforts are defined as Assigned Family Responsibilities divided by income and provide 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 Assigned Family Efforts for families earning the Minnesota median income for families of 4 and by income quintiles are also presented.

Income Associated with the 1986 Peaks

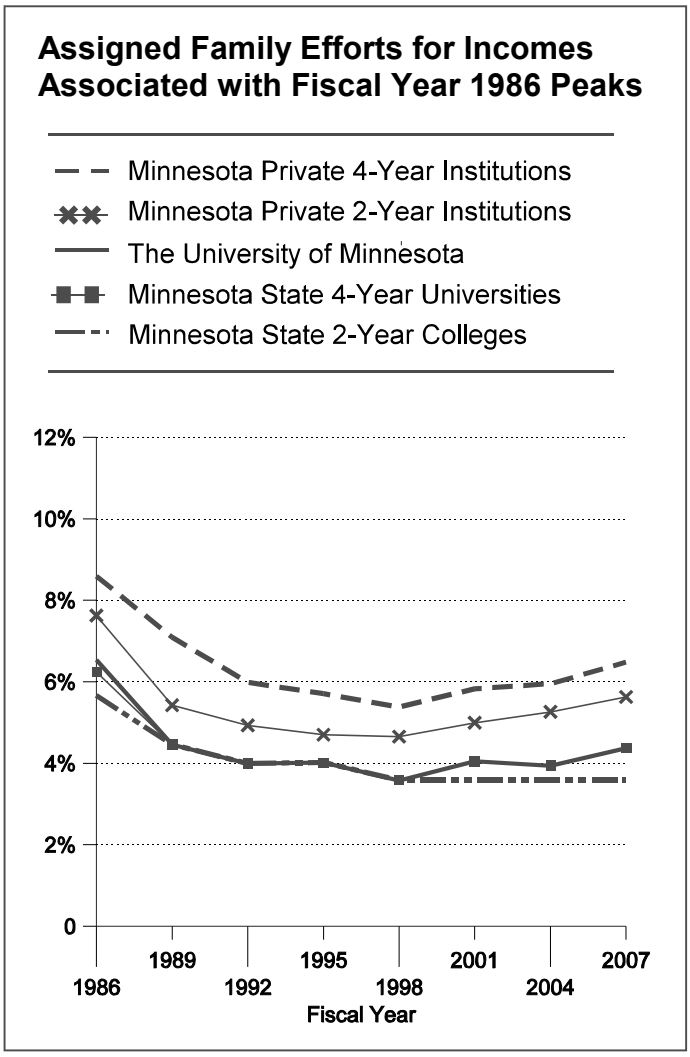
This section analyzes the change in Assigned Family Efforts at family incomes associated with peak efforts in Fiscal Year 1986. Specifically, this section answers the question, how have families at income levels associated with peak efforts in Fiscal Year 1986 been assessed in subsequent years? The following 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

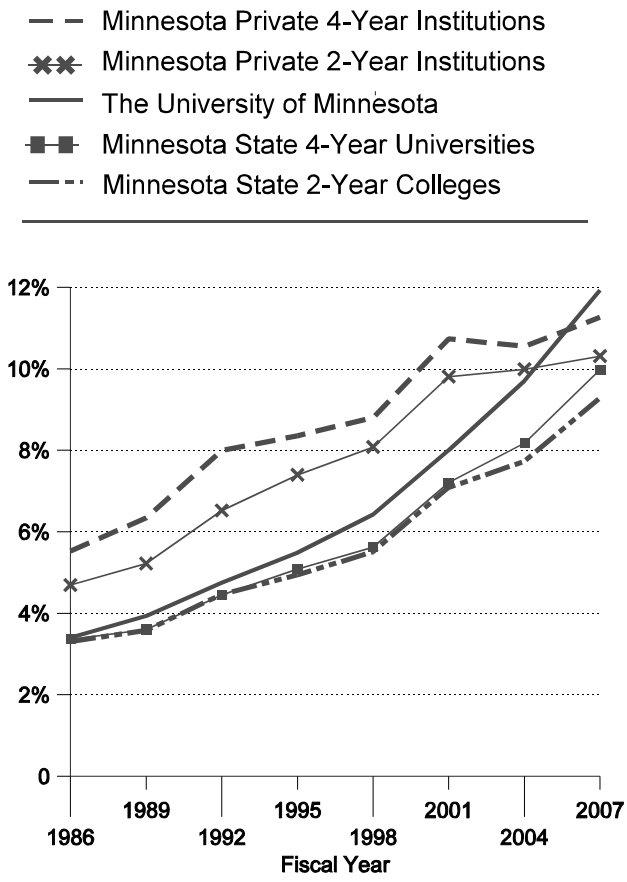
This section analyzes the change in Assigned Family Efforts at family incomes associated with peak efforts in Fiscal Year 2007. Specifically, this section answers the question, how have families at income levels associated with peak efforts in Fiscal Year 2007 been assessed in prior years? The following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

Assigned Family Efforts for Incomes Associated with Fiscal Year 2007 Peaks



Median Income for Family Size of 4

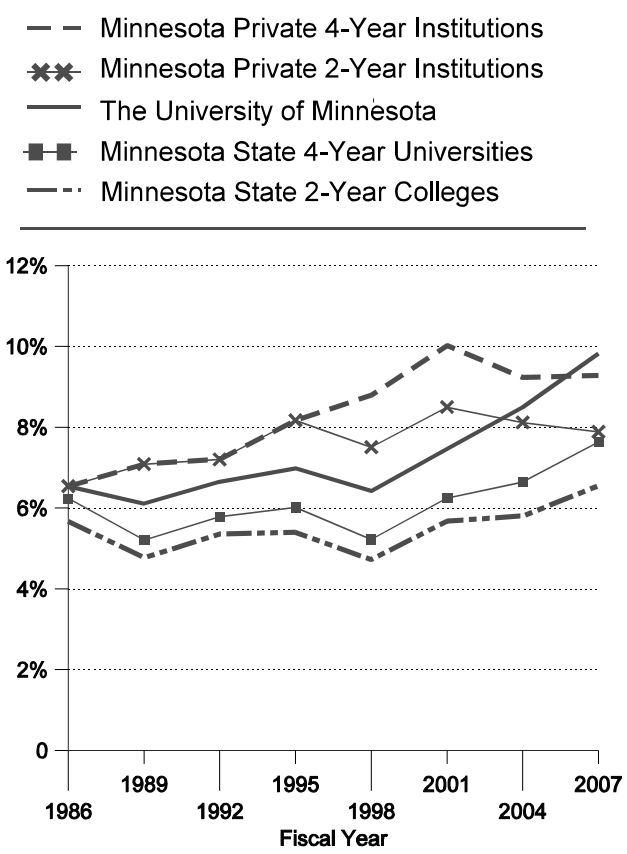
This section analyzes the changes in Assigned Family Efforts for families at the Minnesota median income for a family size of 4 for the period, Fiscal Years 1986-2007. U.S. Census Bureau data for the median income for Minnesota families of 4 are shown in the following table:[1]

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 4 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 to the right.[2]

Assigned Family Efforts of families of 4 with dependent students attending Minnesota Private Four-Year Institutions increased from 6.5 percent to 10.0 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.

Assigned Family Efforts for Median Incomes for Family Size of 4



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 in 5 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 1 to 3 percent after 1995, as shown in panel 1 on the next page. All families, 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.[5]

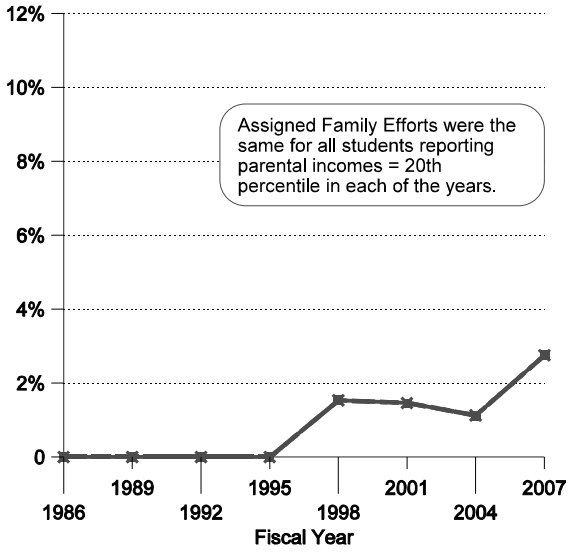
For families at the 40th percentile, incomes increased from $24,100 to $47,763 between 1986 and 2007. Assigned Family Efforts for these families decreased from about 4 percent to 3 percent between 1986 and 1992. From 1992 to 2007, Assigned Family Efforts rose to about 8 percent, as shown on panel 2 on 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 previous 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. Families at the 60th income percentile were more likely

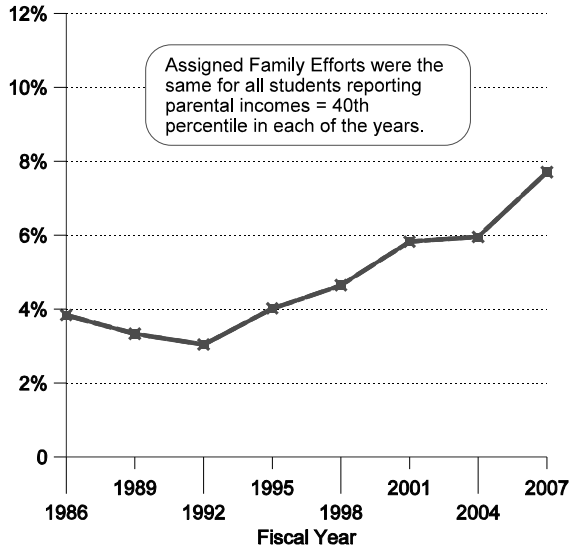
Assigned Family Efforts for Dependent Students, 20th, 40th, 60th, and 80th Percentiles

- Minnesota Private 4-Year Institutions
- Minnesota Private 2-Year Institutions
- The University of Minnesota
- Minnesota State 4-Year Universities
- Minnesota State 2-Year Colleges

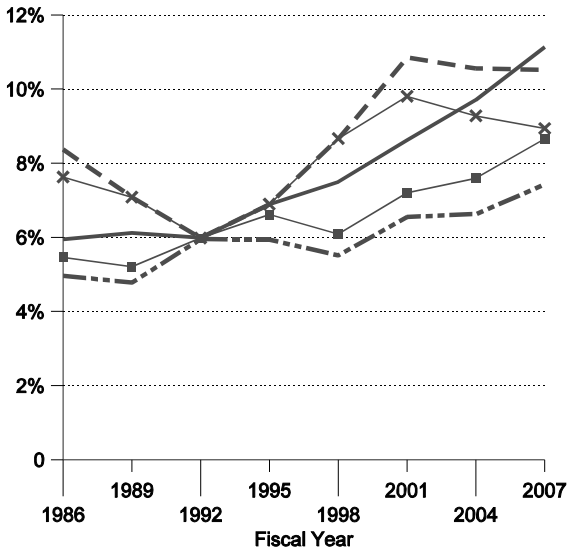
1. 20th Percentile



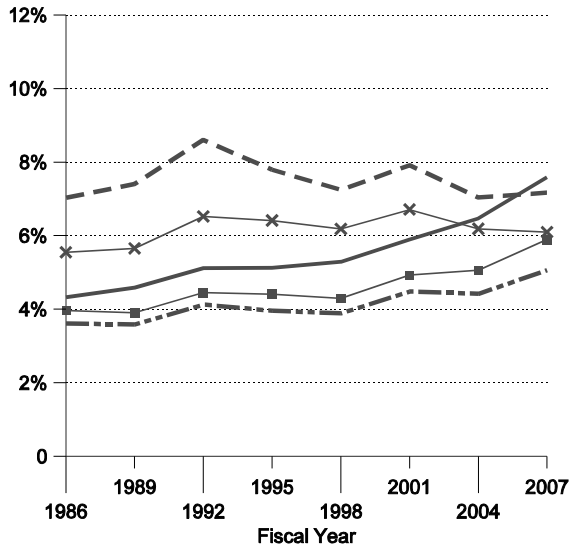
2. 40th Percentile



3. 60th Percentile



4. 80th Percentile



to be at or near the peak Assign 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 previous 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 at any time between 1986 and 2007.

Conclusion

The prices of attending Minnesota postsecondary institutions have been increasing. Minnesota families participating in the Minnesota State Grant Program generally have been assigned more relative to their incomes since 1986.

Since 1986, the peak Assigned Family Efforts have increased and moved up the income scale. The peak Assigned Family Efforts for families with students attending the University of Minnesota, for example, increased from about 7 percent of about $30,000 incomes in 1986 to roughly 12 percent of about $70,000 incomes in 2007. In both cases, the peaks occurred at incomes slightly less than the median incomes of families of 4 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 4 percentage points at the 40th percentile and nearly 5 points at the 60th percentile. Similar, albeit less dramatic, increases were observed for families with students choosing other institutions.

Endnotes

1. For 1986-2003, used the Minnesota value from the Median Income for 4-Person Families, by State [accessed at http://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) [accessed at http://www.acf.dhhs.gov/programs/liheap/guidance/information_memoranda/im06-05.html#A (June 13, 2006)]. For 2005, used the Minnesota value reported in http://www.acf.hhs.gov/programs/liheap/guidance/information_memoranda/im07-02.html#atta (September 11, 2007). For 2006 and 2007, assumed a 2% per year increase.

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.

3. 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 http://www.census.gov/hhes/www/income/histinc/f01ar.html (August 22, 2007)]. For 2006 and 2007, it was assumed all values would increase by 2% 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 http://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/.

5. As with median incomes for 4-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.

Measuring Ability to Pay

Staff Background Paper

Prepared by:
Staff of the Minnesota Office of Higher Education

December 18, 2007

Contents

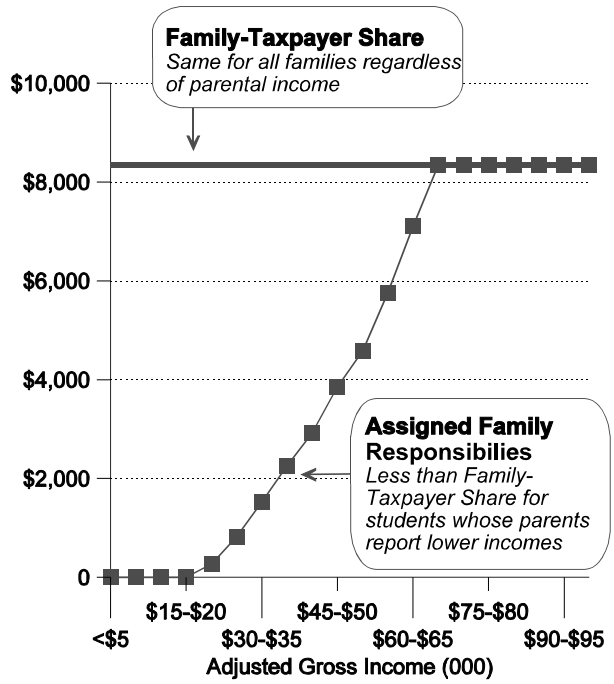
Introduction

In an earlier paper, *Overview of the Design for Shared Responsibility*, Assigned Family Responsibilities were defined and their role within the Design described. Assigned Family Responsibilities are a measure of ability-to-pay. The next section repeats the parts of the section introducing Assigned Family Responsibilities in the *Overview*.

In the following section, challenges to the current system of measuring abilities-to-pay are presented. Then, a review of the current methodology for determining Assigned Family Responsibilities is provided. The remaining sections of this paper summarize other ability-to-pay measures used by governments, including federal and state personal income taxes, Minnesota's Property Tax Refund, and two different child care programs.

Assigned Family Responsibilities

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



The Design for Shared Responsibility is built on the principle that families have their assignments based on their abilities-to-pay.[1] 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.

Currently, Minnesota coordinates with the federal student aid application process so Minnesota applicants and their families fill out the same form for federal and state grants, the Free Application for Federal Student Aid, FAFSA.[2]

The federal government, using the Federal Need Analysis, assesses family incomes and net worths reported on the FAFSA.[3] The results of the Federal Need Analysis are what the federal government expects families to pay for postsecondary education, Expected Family Contributions. The federal government uses these results to determine Federal Pell Grants, Federal Stafford Loan subsidies, and other federal financial aid amounts. Many campuses use these results as well.

Minnesota uses the definitions and rates in the Federal Need Analysis, but does not accept the results in determining Minnesota State Grants. Instead Minnesota 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 worths 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 (move to the right on the income scale), Assigned Family Responsibilities increase as well. At some point on the income spectrum, Assigned Family Responsibilities equal the Family-Taxpayer Share, at about $60,000 adjusted gross income at a Recognized Price of $15,462 used in the chart. That point varies with prices since

Family-Taxpayer Shares directly 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). Parents of dependent students with more dependents are assigned less financial responsibility (the line shifts down).

The Design for Shared Responsibility embodies the following values by assigning a share of the Recognized Price of Attendance to families:[4]

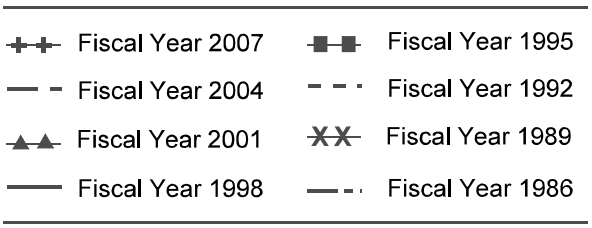
- Family income and net worth are appropriate measures of ability-to-pay for the postsecondary education of family members.
- Families benefit from educated family members.
- Families will accept their financial responsibilities, and if they do not, the responsibility falls to the student and not to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

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

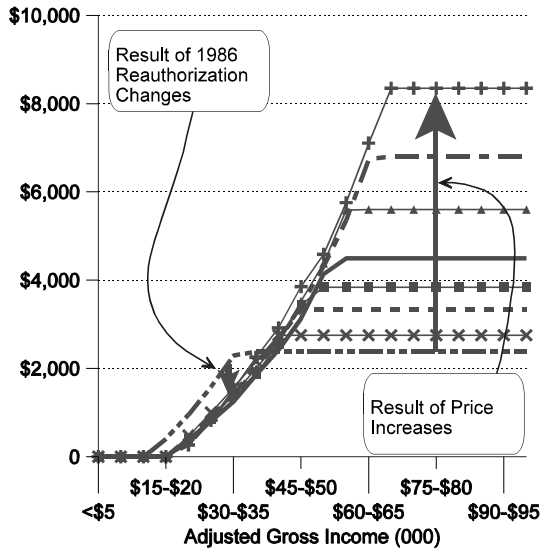
For dependent students, the dollar amount assigned to families from lower income families decreased between Fiscal Years 1986 and 1989, as shown on the upper panel to the right. For families on the right

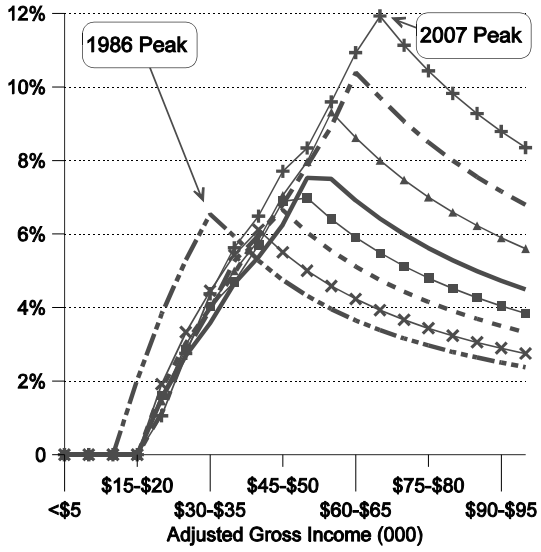
Assigned Family Responsibilities & Efforts

Typical Dependent Students Attending the University of Minnesota



Assigned Family Responsibilities





side of the income distribution, Assigned Family Responsibilities have been increasing with price increases. While this panel applies to dependent students attending the University of Minnesota, similar results occurred for all families of dependent students irrespective of where students chose to attend.

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 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 7 percent at incomes of about $30,000.

2. Change in Assigned Family Responsibilities for Unmarried Independent 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.
- 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 left side of the income distribution.
- Assigned Family Responsibilities for students with the lowest income were zero in Fiscal Year 2007.
- Assigned Family Responsibilities have been increasing with price increases for students on the right side of the income distribution.

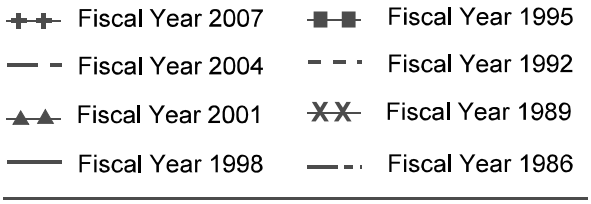
Typical unmarried students with no dependents earning more than $45,000 attending the University of Minnesota in Fiscal Year 2007 were assigned the entire Family-Taxpayer Share of the recognized price of attendance, as shown on the top panel.

Assigned Family Responsibilities measured as a percentage of adjusted gross incomes provide an indicator of financial effort. This relationship, called Assigned Family Efforts, 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.

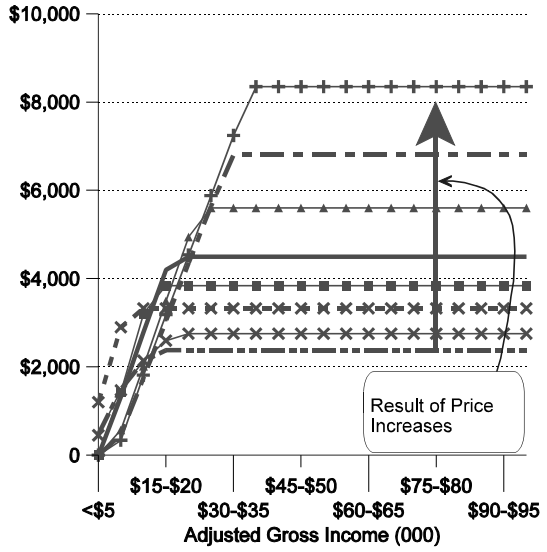
For typical unmarried students with no dependents attending the University of Minnesota in Fiscal Year 2007, the peak was about 21 percent for those earning about $35,000. This compares with the 1986 peak of about 15 percent at incomes of about $10,000. The peak was as high as 29 percent in 1992.

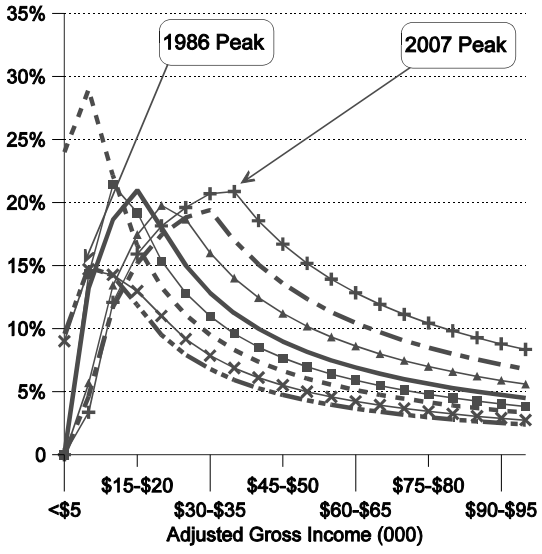
Assigned Family Responsibilities & Efforts

Typical Unmarried Students with No Dependents Applying as Independent Students Attending the University of Minnesota



Assigned Family Responsibilities





The Current System is Being Challenged

The assignment of Assigned Family Responsibilities determines the distribution of Minnesota State Grants across incomes. Thus, it is the focus of much attention among policy makers and advocates. Often, advocates for change focus on a proxy for Assigned Family Responsibilities, for example, most of the suggestions to change the "treatment" of part-time and independent students by prorating awards are really suggestions to change the measurement of ability-to-pay.

In the end, calculations of Assigned Family Responsibilities require assessing a financial base, including income, after adjusting for family and other circumstances deemed relevant. The devils are really in the details of the definitions of financial resources, adjustments, brackets, and rates. This paper is intended to shed light on current practice and the forces affecting the debate. To do this, arguments for changing the current system of measuring abilities-to-pay are presented in this section.

Sandy Baum (2004, p. 53) introduced her discussion of these challenges in assessing abilities-to-pay (need analysis) as follows:

> At its inception a half-century ago, need analysis was grounded in several basic principles. One was the idea that aid applicants should be taken as they appear at the time of application. In other words, a family's past options and choices should not be taken into consideration or judged. The need analysis system would simply look at applicants' current income and assets and determine the amount they were able to pay in the year. This view became deeply ingrained in the financial aid profession, but has been brought into question in recent years by the focus on education as an investment and the recognition that few families can afford to pay for college without planning over time, saving, and borrowing.

1. The 1998 Performance Evaluation Team Was Split

In 1998, the Higher Education Services Office formed a Team to find an answer to the question: **Can reasonable measures be found to evaluate the assignment of family responsibilities?** At the end of deliberations, the Team could not reach a consensus. Differences among Team members reflected differing views rather than differing interpretations of the data considered. While this group has no larger standing than a staff team, their struggles provide a glimpse of the conflict that exists within the industry.

Some argued that families should be expected to pay all they can; if they are making the payments or commitments for future payments now, then the assignment is reasonable. This is true, by definition, for those attending. Therefore, it should hold for those not attending as well.

Others argued that the state is asking parents to make voluntary investments in their adult children; parents will comply only as long as the assignment seems fair. Experiences with voluntary compliance with income taxes suggest that a system that goes from a zero assessment at an income of $25,000 to the maximum assessment at $60,000 will be viewed as less than fair.

This gets articulated as "The poor get theirs (the zero assignment up to $25,000) and the rich get theirs (the regressive distribution beyond $60,000) while those in the middle get squeezed."

The answer to this question is really a strategic decision for the state. The state, through many means, encourages students to invest in post-secondary educations. The reasonableness of assignments to families needs to reflect the aggregate investments in human capital through post-secondary education the state deems appropriate for its interest. Any system of distributing the price between families and taxpayers will result in some families "getting a break" because they were willing to make a larger investment than the state assigned. Similarly, any system that expects parents to share in the financing of their children's educational investment will "fail" for some students since some parents will not invest, no matter how trivial the assignment. In the end, the state decides the limit to its commitment of providing access to and choice of the educational options available to students and their families by assigning payment responsibilities to students and families.

2. Complexity in Financial Aid Application Said to Be a Barrier

Susan Dynarski and Judith Scott-Clayton (2006) prepared a working paper that compares the complexity of determining ability-to-pay in the financial aid process with the complexity of assessing ability-to-pay in the income tax process. By making this connection, they were able to bring the results of a more extensive research literature to bear on the processes of financial aid. Most of the points made in this section are developed more fully in their paper.

Equity has universal appeal; documented inequities, no matter how rare, raise concerns about the fairness of a process to determine ability-to-pay. To eliminate inequities, complexity is added to the application process. Requiring another piece of data adds one or more questions to an application form, and sometimes another worksheet. This requires the applicant to understand more nuances of the processes, and collect more documentation to substantiate the data entered on the form or forms. As reported by Louis Kaplow (1996), measuring ability-to-pay for income tax purposes more accurately produces costs to society. These costs are borne by governments, filers, and third parties (example, mortgage companies preparing and distributing Form 1098s). In the end, it is necessary to balance the benefits of improved equity against costs borne by all parties, not just the costs to governments.

Dynarski and Scott-Clayton (2006, p. 33) suggest that the complexity of FAFSA could be reduced substantially for purposes of federal programs and maintain a similar pattern of award distributions across incomes. They conclude this part of their analysis with the following summary:

> Today's FAFSA and aid formula reflect (a) peculiar history, providing extremely fine measures of ability to pay at levels of income that far exceed the effective cutoffs for federal aid. While these distinctions are critical at institutions that provide need-based grants to families with incomes well above $100,000 ..., we have shown such fine measures are irrelevant for the distribution of Pell Grants and Stafford Loans."

The issue of simplification has been examined by financial aid analysts since, at least, the early 1980s. Advanced Technologies, Inc. (1985), for example, proposed the calculation of Federal Pell Grants based on five items collected from applicants. Not all observers consider the complexity of the application process the immediate problem, for example, see Advisory Committee on Student Financial Assistance (2001).[5]

Economic analysts outside the financial aid world, such as Dynarski and Scott-Clayton, claiming that more could be done to reduce the barrier caused by the application process signals challenges to the current system. While linking the financial aid application process to the process of filing personal income taxes adds new evidence to the potential barriers, the political decisions affecting income taxes over the past 20 years have been to complicate the income tax filing process.

Whether the barrier associated with the application process for financial aid is worth dismantling a bit or a lot is an open question. That the question is being asked outside the world of financial aid does suggest that the current methodologies face challenges. These challenges could inform the direction needed to be taken within financial aid programs to maintain voluntary compliance with a system that expects parents to support their adult children.

3. Federal Tax Law Alters Who Pays How Much

Taxpayers, beginning with the filing of their 1998 federal income taxes, have been claiming Federal Hope and Lifetime Tax Credits. Taxpayers, beginning with the filing of their 2002 federal income taxes could choose a Tuition and Fee Deduction instead of the tax credits [Internal Revenue Service (2003)].

While these changes were made as part of larger packages of tax changes, that the payments of tuition and fees were included and not other expenditure, such as payments for medical insurance and services, has significance for this discussion. Current financial aid programs producing peak Assigned Family Responsibilities at $50,000 to $65,000 incomes is just one sign of the frustration that policy makers were trying to address.

Taxpayer investments through grant programs like the Minnesota State and Federal Pell Grants and by tax credits and deductions are all legitimate taxpayer investment vehicles. As generally available taxpayer educational investments, tax credits and deductions can be considered in a manner parallel to the way Federal Pell Grants are considered in evaluating the Minnesota State Grant Program.

By the very nature of their design, the tax credits and deductions should be viewed as reductions in Assigned Family Responsibilities. This creates an interesting interaction between federal financial aid policies and federal tax policies. These interactions impact similar policies for the states as well.

Since 2000, income tax rates have been moderated but Assigned Family Responsibilities have not. In this section, we see the moderation has occurred outside the structure of calculating Assigned Family Responsibilities. The effect of the tax credits and deductions has been to lower the peaks and greatly expand the portion of the income spectrum that qualify for taxpayer investment. To accomplish these two results, the federal government went around the need analysis system such as used to calculate Assigned Family Responsibilities. While there continues to be a tension regarding the relative distribution of payment assignments across the income spectrum, the voices arguing for considering the wider range of incomes are being heard in the political process. This suggests further challenges on the current means of calculating ability-to-pay for Minnesota State Grants, in particular, and for all financial aid programs, in general.

A. Reduced Assigned Family Effort Peaks

The tax credits and deduction lower the peaks in the Assigned Family Efforts. For students choosing the medium price option considered in this report, the Federal Hope Tax Credit reduces the peak from 9% to 6% for the typical dependent students considered in this analysis and from 21% to 15% for typical unmarried independent students with no dependents, as shown on the chart below. The Federal Lifetime Tax Credit reduces the peak from 9% to 7% for the typical dependent students considered in this analysis and from 21% to 17% for typical unmarried independent students with no dependents, as shown on the chart below. The Tuition and Fee Deduction reduces the peak from 9% to 8% for the typical dependent students considered in this analysis and from 21% to 18% for typical unmarried independent students with no dependents, as shown on the chart below.

B. Widened Income Spectrum

A second sign embodied in the tax credits and deductions is that student financing policies need to focus on a wider portion of the income spectrum than has been considered in the past. Federal Pell Grants focus on families earning up to $40,000. Minnesota State Grants has extended the focus a little further up the income scale. Federal tax credits focus on families earning up to $105,000 with the limits to be adjusted annually for inflation. The Tuition and Fee Deduction extends the income limits to $160,000.

4. Emergence of Alternative Measures of Ability to Pay and Divergence from the Federal Need Analysis Assignments

Following the 1992 amendments to the Higher Education Act of 1965, a number of institutions cooperatively developed an alternative means of determining ability to pay of students and parents. The College Scholarship Service, a unit of the College Board, administers an alternative means, called the Institutional Methodology, for participating institutions.[6] The motivation for

Federal Tax Law Lowered Family Assignments at the "Peak" for Typical Students Attending the University of Minnesota, Fiscal Year 2007

Assigned Family Responsibilities as defined above

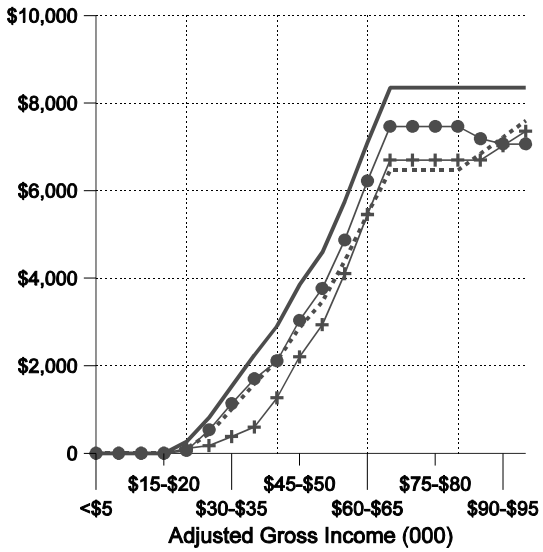
Assigned Family Responsibilities net of benefit of Federal (& State) Tax Deduction

Assigned Family Responsibilities net of Federal Lifetime Tax Credits

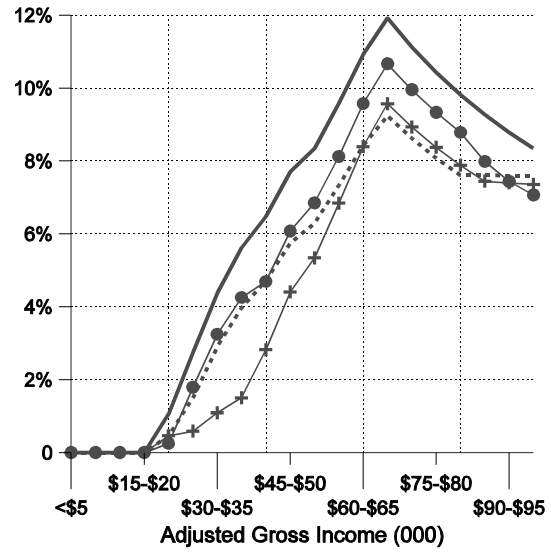
Assigned Family Responsibilities net of Federal Hope Tax Credits

Dependent Students

Assigned Family Responsibilities Net of Federal Tax Credits and Deductions

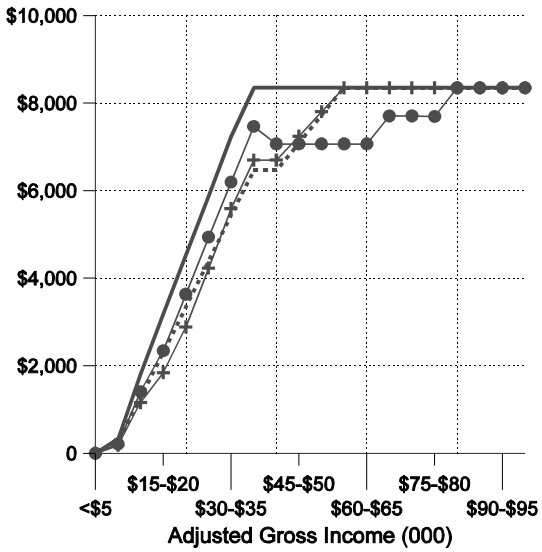


Assigned Family Efforts Net of Federal Tax Credits and Deductions

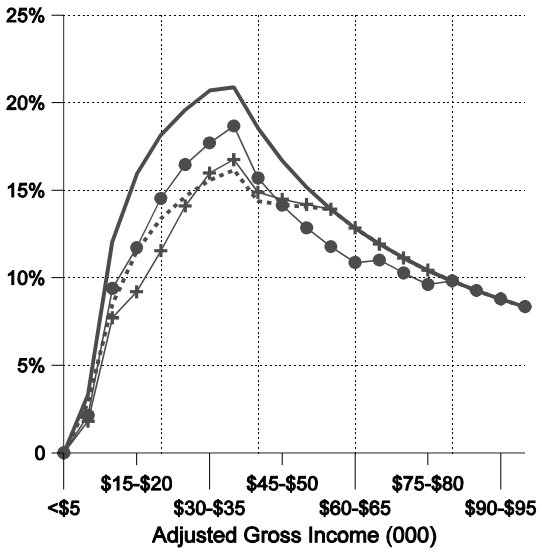


Unmarried Independent Students with No Dependents

Assigned Family Responsibilities Net of Federal Tax Credits and Deductions



Assigned Family Efforts Net of Federal Tax Credits and Deductions



establishing an alternative was an assertion that the Federal Need Analysis was not a real measure of ability-to-pay, *i.e.,* resulted in ability-to-pay amounts that were too low. After making a number of adjustments over the past few years, Institutional Methodology no longer results in a larger ability-to-pay calculation for all students.

More recently, the original 28 members of the 568 Group developed an alternative ability to pay measure called: the Consensus Approach or the Consensus Methodology.[7] This approach has more generous allowances than the Federal Need Analysis in some cases. It also considers a more comprehensive set of financial data. So, the net effect, for an individual or for the population, is not knowable without extensive review of individuals who have submitted data for all three approaches. To date, reports of research on this topic have not been located.

The following description of a session at the 2001 College Board's Midwestern Regional meeting provides a sense of the tension that exists in determining abilities-to-pay that appears to be similar to the differences of perspectives manifested above:

> **The IM/FM Conundrum: Where Do We Go from Here?**
>
> The changes made to the Institutional Methodology (IM) for the 2000-2001 processing cycle took the IM even further from the Federal Methodology (FM) [legally known as the Federal Need Analysis] in terms of the analysis performed and the family contribution outcomes. Incorporation of new savings allowances, modification of the income and asset assessment rates, and adoption of new asset allowances were well received by most institutions, and resulted in more reasonable family contributions for many families. However, these changes produced a significant number of cases (about 25 percent nationally according to College Board staff research) where the IM family contribution was lower than the FM contribution. Institutions were faced with the choice of using the FM EFC to package their institutional aid or eliminating federal aid from the aid package. Future changes under consideration by the Financial Aid Standards and Services Advisory Committee (FASSAC) could result in an increase in the number of cases where the IM family contribution is more generous than the FM contribution. For example, FASSAC is very interested in changing the treatment of student assets by assessing them at the parents' rate.
>
> Such a change would result in lower family contributions and a higher incidence of cases where the FM EFC is higher than the IM TFC. Join members of FASSAC to consider options as the aid community approaches the next federal reauthorization. Could the community join forces to urge Congress to make changes to the FM that would bring the results closer to the IM? Is there community consensus about changing the treatment of student assets? Are there other changes to either the IM or the FM that should be proposed?

Interestingly, while the motivation for establishment of Institutional Methodology (IM) was purported to be a more rigorous calculation of ability-to-pay, it appears that the forces that played out in the creation of tax credits were at work within the group of post-secondary institutions helping to formulate Institutional Methodology.

5. Incumbent Workers

Incumbent Workers became a focal point of folks concerned about labor markets and the availability of skills required by businesses and industries located in the region as well as those employers whom policy makers would like to attract to the region when tightness emerged in a number of technical fields during the late 1990s.

Student financial aid philosophies and policies came to maturity (acceptance) in the same era that brought us the War on Poverty and the concerns of enabling young people to develop skills to find a job in labor markets characterized by a surplus of workers. This was at the start of the baby boomers moving into the labor force creating a generation of "excess labor." Women were joining and remaining in the labor force in record numbers at the same time compounding the "excess labor" problem. The concern was to provide financial support for those that had not yet had a chance to establish themselves in the labor market.

The demographic depression (baby bust) that had created havoc in the educational industry starting with empty classrooms in elementary schools in the 1980s began to affect labor markets during the late 1990s. While the baby boomers experienced labor markets with a surplus of labor when they entered the labor force, the baby bust generation experienced labor markets with shortages of labor, especially labor with certain skills and abilities during the late 1990s. During the 1970s and 1980s, a feasible solution to spot labor shortages was to influence the career choices of young people; there were enough workers to "go around." Now, many policy analysts and policy makers have accepted the general principle that there will be tight labor markets for skilled workers in many fields. In tight labor markets, influencing career choices really means redistributing the shortages, especially among those careers requiring extensive education and training for entry.[8]

In the run up to the 2001 Legislative Session, discussions of a shortage of workers and perceived underemployment of many workers resulted in calls for action. While there continues to be proposals to solve labor shortages by providing incentives to encourage young people to make particular career decisions, there is an emerging recognition that the solution will require more fundamental upgrading of the existing labor force. The case for upgrading the existing labor force requires a general *under*employment among the existing labor force, such that there are persons now active in the labor force who have the abilities, interests, and attributes to acquire the skills identified as being in short supply.

In the language of the street, there are people earning $20-$25 per hour who with investments of time, effort, and money in significant higher education activities could develop the human capital required to fill the "higher" skill jobs and earn $30-$35 or more per hour. Further, to make this work, it is assumed there are other workers capable and willing to make the investment of time, effort, and money to move up to the $20-$25 per hour jobs. This also fit with some of the welfare reform advocates position that the first step in solving the welfare problem is to get people jobs.

The Office of Governor (2000) prepared a work force development plan that identified the problem as follows:

> In the past, the state could rely on new entrants to the labor force—women, returning veterans, the unemployed—to fulfill the demands of a booming economy. With the highest rate of labor force participation in the country, it is no longer that simple for Minnesota—there is not and will not be an abundance of new people entering the workforce. ... Many currently-employed Minnesotans are working at a level below their potential—in other words, they are underemployed. Nearly 40 percent of the Minnesota workforce are earning less than $10.00 per hour. These ***incumbent workers*** may lack the skills or financial resources necessary to proceed to the next step of career development and are usually not eligible for existing targeted programs. This underutilization of talent is particularly serious in light of the increasing demand for workers with advanced technical skills. (p. 1 emphasis added)

Investing in incumbent workers was a key part of the Citizens League (2000) agenda for the Governor, 2001 Legislature, and others concerned about the future of Minnesota's economy.

> **Ongoing Investment for Incumbent Workers**: We also need to improve our ongoing investment in our existing workers. ... Increasing the skills of our incumbent workforce is critical to staying competitive in a rapidly changing economy. Increased training is also essential to retaining older workers. ... Current efforts, however, fall short in addressing the skill needs of our incumbent workforce. State and federally-funded training programs still operate to assist those outside of the workforce. Most workers and employers are left to their own devices in adapting to new technologies and new skill needs.

The Economic Summit, sponsored by the University of Minnesota, was followed by an Economic Working Group (2000) that proposed recommendations affecting the way state looks at investing in its citizens.

> (D)esign and fund training for incumbent workers including new curricula, delivery systems (Internet), strategic state government investments in skills upgrading, incentives to smaller private sector companies to invest in skills upgrading, etc. *Build toward additional sources of funds for **incumbent worker** training*. (p. 13 emphasis added)

The Governor proposed in his budget for Fiscal Years 2002 and 2003 that the Assigned Family Responsibilities for independent students be reduced an additional 33 percent as a means of encouraging incumbent workers to invest in themselves. The 2001 appropriations bill funded the Governor's request with a 10% reduction in the Assigned Family Responsibilities of independent students with another 10% based on a contingency that additional funds would be available in Fiscal Year 2003. The contingency never materialized so the reduction remained at 10 percent. In the tumble of the 2003 Session, the concept was not raised but this was one of the few recent changes in the Minnesota State Grant Program that was not rescinded in the 2003 appropriations bill.

While incumbent workers have not been the focus of the Minnesota State Grant Program since 2001, the concept is being implemented. For example, in 2006, the Job Skills Partnership Board of the Minnesota Department of Employment and Economic Development chose to direct future grants to providers providing incumbent worker training as outlined in a press release:

> Minnesota's employed, incumbent workforce working in demand occupations is the focus of a new training program recently approved by the Minnesota Job Skills Partnership (MJSP) Board. The

Board has approved $2.5 million for a Special Incumbent Worker Training Program to expand opportunities for businesses and worker to increase their skills.

In the Special Incumbent Worker Training Program, units of state or local government, nonprofit organizations, community action agencies, business associations or organizations, and labor unions working together with a training provider and business are eligible to apply for grants of up to $400,000.

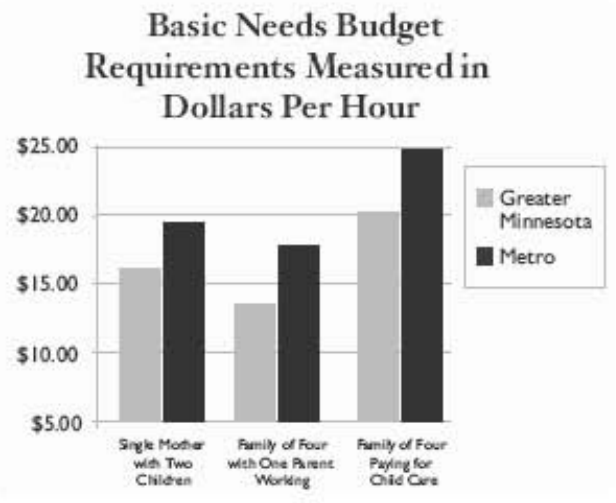
Grant funds may be used for direct training services, basic assessment, counseling and preemployment services for incumbent workers. Innovative partnerships and projects demonstrating creative training models will be given preference. In addition, preference will also be given to projects that incorporate English as a Second Language training to improve workplace English or involve Minnesota State Colleges and Universities (MnSCU) Centers of Excellence.

The four Centers of Excellence are: Center for Strategic Information Systems and Security at Metropolitan State University; Center for Integrated Health Science Education and Practice at Winona State University; Center for Engineering and Manufacturing Excellence at Minnesota State University, Mankato; and Consortium for Manufacturing and Applied Engineering at Bemidji State University.

All of this suggests that student financial aid, in general, and Minnesota State Grants, in particular, are likely to be part of the Incumbent Worker (or similar) discussions. Incumbent Workers challenge the financial aid world. In the financial aid world, for the most part, these people have made it, they have "good" jobs. In the world of labor shortages, incumbent workers are attractive people for public investment.

6. Living Wage

Growth & Justice (2004) defined a basic-needs budget. "(The) basic-needs budget is no-frills, but not bare subsistence. It includes no money for eating out, savings, **education beyond high school**, vacations, life insurance or a down payment on a house. It does include 40th percentile fair-market rent, health insurance, child care (except where one parent doesn't work) at the regional average price, and basic transportation, clothing, and household maintenance items. It also includes taxes paid and tax credits received." (p. 8, emphasis added)



Source: Growth and Justice (2004)

This translates into hourly wages of $14 to $25 per hour depending on household size and location, as shown on the chart on this page. At the top end, this is an annual salary of $50,000 per year, in 2004 terms.

According to some financial aid experts, "high-income" should be set around $50,000

so families earning more should be beyond the reach of taxpayer investments in the form of financial aid. But if $50,000 per year is a basic needs budget with no allowance for post-secondary expenses, then these individuals should be assigned no family responsibilities, that is, qualify for a large taxpayer investment through financial aid. If a $50,000 annual income includes no allowance for the wage earners' post-secondary expenses, then families at this income level should not be assigned payment responsibilities for their dependents, i.e., have zero Assigned Family Responsibilities.

Like the other points raised in this section, discussions of Living Wages challenges the financial aid world. In the financial aid world, for the most part, many of these people have made it or are close to having made it; they have "good" jobs and "adequate" incomes within the context of applicants seeking taxpayer investments. In the world of many labor market observers, workers earning less than living wages should qualify for public investment on both growth and justice grounds.

Minnesota Starts with the Federal Need Analysis

Currently, Minnesota coordinates with the federal student aid application process so Minnesota applicants and their families fill out the same form for federal and state grants.

1. Case 1: Dependent Students and Their Families

The Federal Need Analysis provides a starting point for defining Assigned Family Responsibilities. All of the definitions, allowances, and assessment rates used in the Federal Need Analysis are used in calculating Assigned Family Responsibilities. For calculating Minnesota State Grants, only the portion of the Federal Need Analysis pertaining to parents is used; for federal programs, students' incomes and net worths are assessed as well. The calculation for parents of dependent students is shown on the next page.

Three examples are shown in the table two pages below. The first line is adjusted gross income as calculated for federal income tax purposes. In the examples shown, the 20th, 40th, and 60th percentile incomes for families in the United States were used.[9] The second line includes a wide range of untaxed income, including welfare payments and interest on tax exempt bonds. For purposes of illustration, it was assumed that each family contributed to a 401 k plan an amount equal to 5 percent of adjusted gross income. These two values are added to determine total income.

Aa number of deductions are allowed. Federal income taxes paid were estimated assuming the adjusted gross income shown on the first line, the family had four members included on the tax return, and the families used the standard deduction. Social Security taxes were based on earned income equal to adjusted gross income for purposes of these examples. State and Other Taxes is an allowance is a standard percentage of total income. The Employment Expense Allowance applies if both parents, in this example, are employed and both earn at least $3,500 during the year. The Income Protection Allowance is based on the table shown.

Available Income is the difference between Total Income and Total Deductions.

Following the Federal Need Analysis, Net Worth is included in determining Assigned Family Responsibilities. Families' personal residences are not counted. Of all the other assets that would be included on families' balance sheets, not all are counted. If an asset is not included, then the corresponding liabilities are not counted. For purposes of these examples, it was assumed that Net Worth was equal to Adjusted Gross Income.

An Educational Savings and Asset Protection Allowance, based on the age of the older parent, is used in the Federal Need Analysis. For purposes of these examples, it was assumed that the older parent was 45 years old. The Asset Conversion Rate is 12 percent. This produces a Contribution from Assets.

Calculation of Assigned Family Responsibilities for Parents of Dependent Students

Total Income		
	Adjusted Gross Income	
+	Untaxed Income	
=	Total Income	(1)

Adjusted Net Worth		
	Net Worth	
–	Educational Savings and Asset Protection Allowance	
=	Adjusted Net Worth	(3)

Available Income		
	Total Income [from (1)]	
–	Federal Income Taxes	
–	Social Security Taxes	
–	State and Other Taxes	
–	Employment Expense Allowance	
–	Income Protection Allowance (See table on next page)	
=	Available Income	(2)

Contribution from Assets		
	Adjusted Net Worth [from (3)]	
x	Asset Conversation Rate (12%)	
=	Contribution from Assets	(4)

Adjusted Available Income		
	Available Income [from (2)]	
+	Contribution from Assets [from (4)]	
=	Adjusted Available Income	(5)

Assigned Family Responsibility	
	Assigned Family Responsibility = Lesser of:
(1)	Adjusted Available Income [from (5)] x Assessment (See table on next page.)
(2)	Family-Taxpayer Share

Calculation of Assigned Family Responsibilities for Parents of Dependent Students, Three Examples for Fiscal Year 2007

Item	Assumption	Family 1	Family 2	Family 3
Adjusted Gross Income	20th, 40th & 60th percentile incomes.	$26,651	$46,840	$71,063
Untaxed Income	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	Assumes family of 4 using form 1040 and standard allowance for deductions	$315	$2,718	$6,352
Social Security Taxes	7.65% of earned income (= AGI in this example)	$2,141	$3,762	$5,708
State and Other Taxes	5% of Income if income $15,000 or more; otherwise 6% of income.	$1,399	$2,459	$3,731
Employee Expense Allowance	$3,100 or 35% of earned income; assumed $3,100	$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	Assume 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
Adjusted Available Income	Available Income + Contribution from Assets on next page	$0	$15,247	$36,737
Expected Parental Contribution	From Assessment of Adjusted Available Income Table	$0	$3,425	$16,785

Item	Assumption	Family 1	Family 2	Family 3
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

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.

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%

Available Income and the Contribution from Assets are combined to determine the Adjusted Available Income. This amount is used along with a set of assessment rates to determine what the federal government calls the Expected Parental Contribution. Assigned Family Responsibilities is the lesser of the Expected Parental Contribution and the Family-Taxpayer Share at the institution the student is attending. Five Family-Taxpayer Shares based on the average Recognized Price of Attendance are shown in the table. The examples shown in the table highlights two characteristics of Assigned Family Responsibilities:

- For the first two families, those with the lower incomes, their Assigned Family Responsibilities increase with income and do not depend on the institution a student attends.

- For the third family, their Assigned Family Responsibility depends on the institution attended and does not depend on the family's income.

2. Case 2: Unmarried Independent Students with No Dependents

The Federal Need Analysis provides a starting point for defining Assigned Family Responsibilities. All of the definitions, allowances, and assessment rates used in the Federal Need Analysis are used in calculating Assigned Family Responsibilities. For calculating Minnesota State Grants, the results are reduced. The calculation for unmarried independent students with no dependents is shown on the next page.[10]

Three examples are shown in the table two pages below. The first line is adjusted gross income as calculated for federal income tax purposes. Three income levels were arbitrarily selected to provide a picture of how Assigned Family Responsibilities for this group is calculated. In this example, no untaxed income is included.

The deductions shown are similar to those used for parents of dependent students. For calculating federal income taxes, it was assumed that the student had one exemption. The other deductions were calculated according to the definitions in the Federal Need Analysis.

Net Worth was arbitrarily assumed to be $10,000 for purposes of the example. The Federal Need Analysis assesses Net Worth at 35 percent and Available Income at 50 percent. The Minnesota Adjustment for this group is 72 percent. Assigned Family Responsibilities is the lesser of this value and the Family-Taxpayer Share. As above, five examples are shown. The examples shown in the table highlights two characteristics of Assigned Family Responsibilities:

- For the first two students, those with the lower incomes, their Assigned Family Responsibilities increase with income and only in the lowest priced option depend on the institution a student attends.

- For the third student, the resulting Assigned Family Responsibility depends on the institution attended and does not depend on the student's income.

Calculation of Assigned Family Responsibilities for Unmarried Independent Students With No Dependents

Total Income		
	Adjusted Gross Income	
+	Untaxed Income	
=	Total Income	(1)

Net Worth	
Net Worth	(3)

Available Income		
	Total Income [(from (1)]	
–	Federal Income Taxes	
–	Social Security Taxes	
–	State and Other Taxes	
–	Income Protection Allowance	
=	Available Income	(2)

Assigned Family Responsibility
Assigned Family Responsibility = Lesser of
(1) (0.50 x Available Income [from (2)] + 0.35 x Net Worth [from (3)]) x Minnesota Adjustment
(2) Family-Taxpayer Share

Calculation of Assigned Family Responsibilities for Parents of Dependent Students, Three Examples for Fiscal Year 2007

Item	Assumption	Person 1	Person 2	Person 3
Adjusted Gross Income	Assumed for sake of the examples	$10,000	$20,000	$30,000
Untaxed Income		$0	$0	$0
Total Income		$10,000	$20,000	$30,000
Federal Income Taxes	Using form 1040 and standard allowance for deductions	$155	$1,341	$2,841
Social Security Taxes	7.65% of earned income	$734	$1,499	$2,264
State and Other Taxes	4% of Income	$400	$800	$1,200
Income Protection Allowance	As apecified by federal government	$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 sake of 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

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

Assigned Family Responsibilities are payment expectations based on income and net worth. Individual income tax liabilities are government imposed spending expectations based on income. In this section, a comparison of Assigned Family Responsibilities and Efforts are compared to the payment assignments made by the two taxes.

1. Case 1: Dependent Students and Their Families

The calculations of federal and Minnesota individual income tax liabilities used in this section were based on: (1) a two parent household filing jointly with two children claimed as dependents, (2) filers using the standard deduction, (3) the Alternative Minimum Tax not applying to these filers, and (4) rates for the 1995, 1998, 2001, 2004, and 2007 tax years.[11]

Tax burdens for both federal and Minnesota personal income taxes were calculated as the ratio of tax liability and adjusted gross income for each income group, as shown on the next page. Tax burdens increase continuously as incomes increase for both taxes. Thus, both tax systems are progressive, at least with the assumptions specified for these examples. Further, Federal individual income tax burdens were reduced between 1995 and 2007. Minnesota individual income tax burdens were marginally reduced.

Assigned Family Efforts as described above are included on the lower right chart on the next page.[12] The distributions for typical families of dependent students attending the University of Minnesota are shown. In this environment of decreasing tax liabilities, Assigned Family Efforts have remained relatively steady for lower income families and have been increasing for other families.

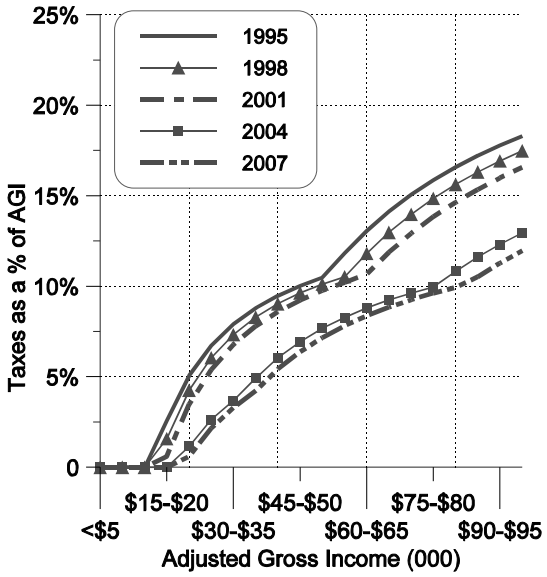
The relationship among the three measures of burdens or effort are shown for each of the years two pages below on the chart titled, “Federal and Minnesota Personal Income Tax Burdens and Assigned Family Efforts, Dependent Students and Their Families.” While the general conclusions reached above are shown again, an unique feature of the relationship between federal tax burdens and Assigned Family Efforts are more clearly shown. While the Assigned Family Effort has been shifting up and to the right, federal income tax liabilities are shifting downward. By Fiscal Year 2007, Assigned Family Efforts exceeded federal income tax burdens at some income levels.

Using the quintile income measures defined in another paper, federal and state income tax burdens have been trending down for each of the four quintile income levels identified, as shown four pages below on the chart titled, “Federal and State Income Tax Burdens and University of Minnesota Assigned Family Efforts, Typical Dependent Students and Their Families.”[13] For the

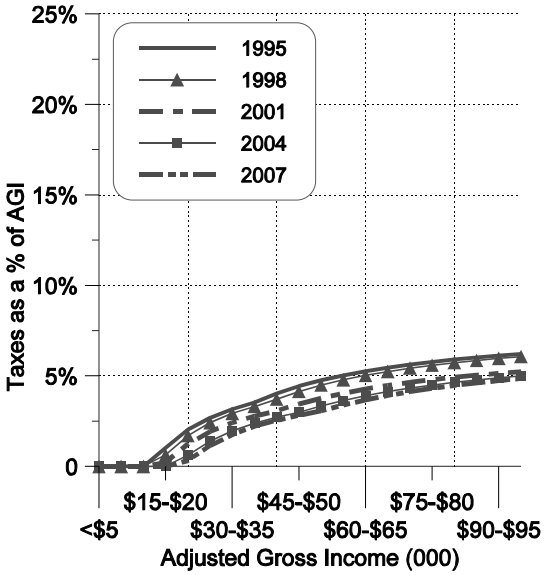
two lower income groups, the Assigned Family Efforts for typical dependent students attending the University of Minnesota have remained relatively constant. For the 60th percentile income,

Comparisons of Federal and Minnesota Personal Income Tax Burdens and Assigned Family Efforts for Families of Dependent Students Attending the University of Minnesota

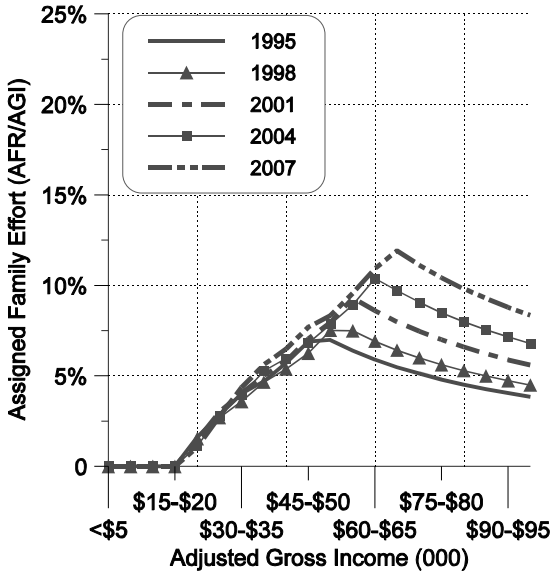
Federal Tax Burdens



Minnesota Tax Burdens



Assigned Family Efforts



Comparisons of Federal and Minnesota Personal Income Tax Burdens and Assigned Family Efforts for Families of Dependent Students Attending the University of Minnesota

1995

1998 **2001**

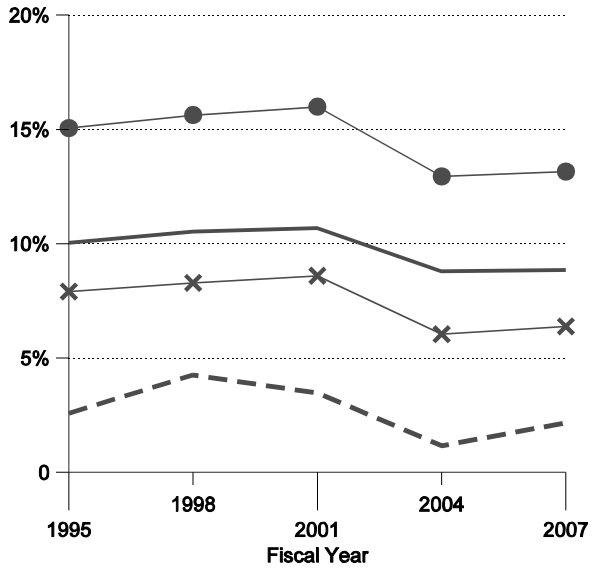
Comparisons of Federal and Minnesota Personal Income Tax Burdens and Assigned Family Efforts for Families of Dependent Students Attending the University of Minnesota, Continued

2004	2007

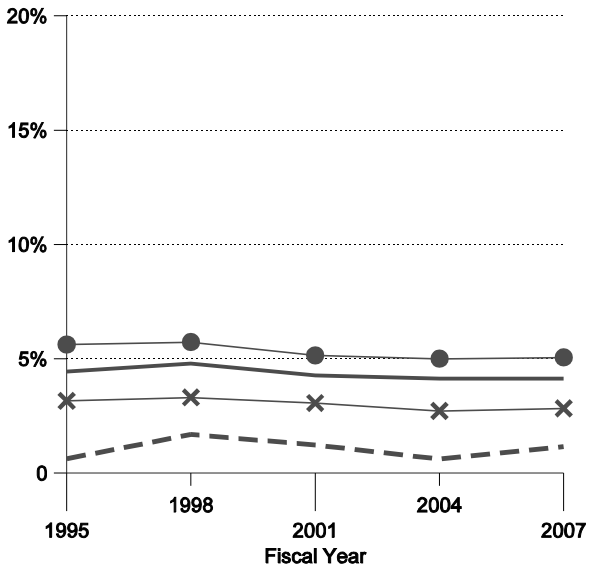
Comparisons of Federal and Minnesota Personal Income Tax Burdens and Assigned Family Efforts for Families of Dependent Students Attending the University of Minnesota

80th Percentile
60th Percentile
40th Percentile
20th Percentile

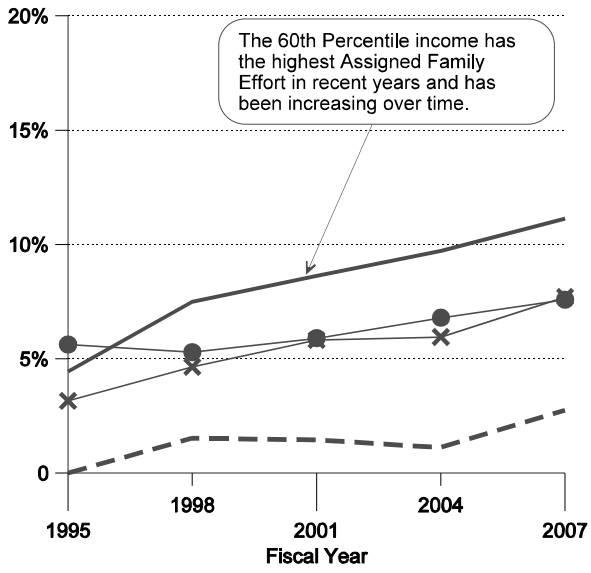
Federal Tax Burdens



Minnesota Tax Burdens



Assigned Family Efforts



the effort has increased about five percentage points, from 5 to 10 percent, as shown on the lower right panel. For the 80th percentile income, the effort has increased two points, from 5 to 7 percent.

2. Case 2: Unmarried Independent Students with No Dependents

The calculation of income tax liabilities used in this section were based on: (1) a single filer claiming self as an exemption, (2) filers using the standard deduction, and (3) rates for the 1998, 2001, and 2004 tax years.

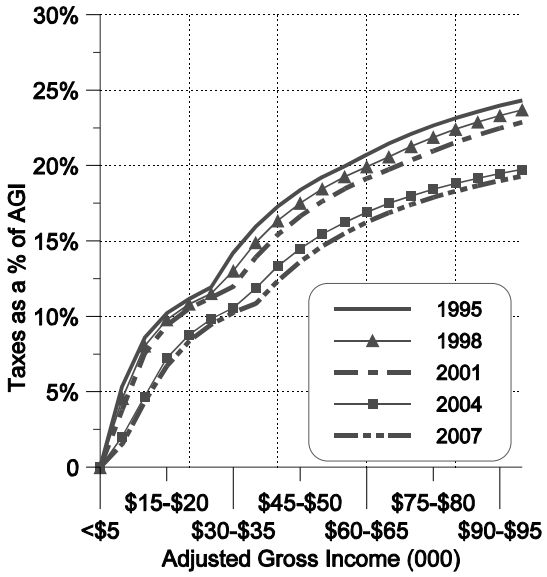
Tax burdens for both federal and Minnesota personal income taxes were calculated as the ratio of tax liability and adjusted gross income for each income group, as shown on the next page. Tax burdens increase continuously as incomes increase for both taxes. Thus, both tax systems are progressive, at least with the assumptions specified for these examples. Further, Federal individual income tax burdens were reduced between 1998 and 2004. Minnesota individual income tax burdens were marginally reduced.

Assigned Family Efforts as described in the prior section are included on the lower right chart on the next page. Maximum Assigned Family Efforts are reached at student adjusted gross incomes of $20,000 to $30,000. The maximum depends on the recognized price of attendance at the college or university selected. The distributions for typical unmarried independent students with no dependents attending the University of Minnesota are shown.

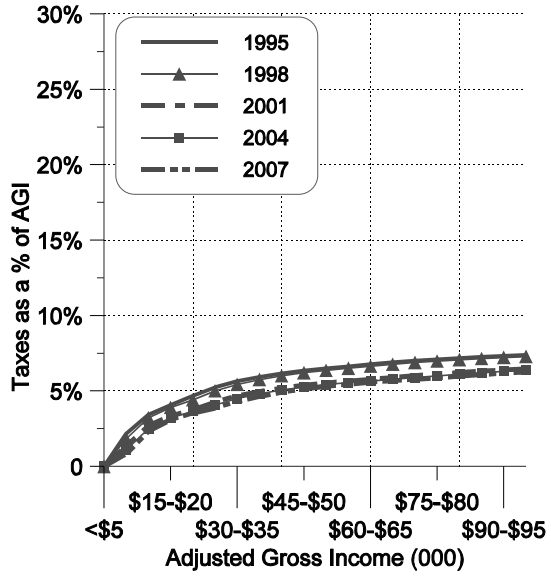
The relationship among the three measures of burdens or effort are shown for each of the years two pages below. The general conclusions reached above are shown again.

Comparisons of Federal and Minnesota Personal Income Tax Burdens and Assigned Family Efforts, Unmarried Independent Students with No Dependents Attending the University of Minnesota

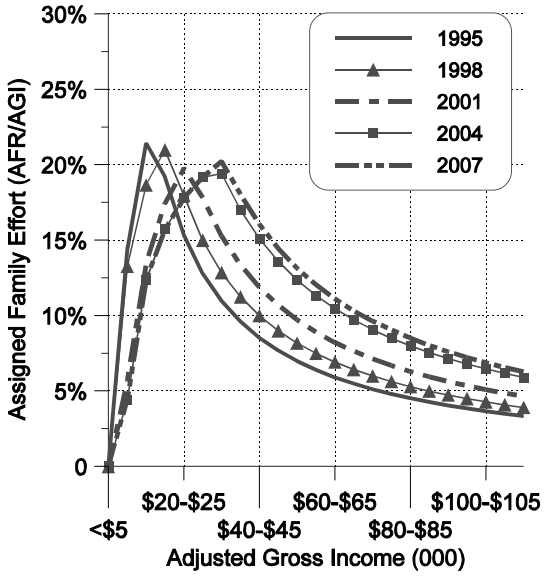
Federal Tax Burdens



Minnesota Tax Burdens



Assigned Family Efforts



Comparisons of Federal and Minnesota Personal Income Tax Burdens and Assigned Family Efforts, Unmarried Independent Students with No Dependents Attending the University of Minnesota

1995

1998 **2001**

Comparisons of Federal and Minnesota Personal Income Tax Burdens and Assigned Family Efforts, Unmarried Independent Students with No Dependents Attending the University of Minnesota, Continued

2004	2007

Assigned Family Responsibilities Compared to Minnesota Property Tax Refunds

Assigned Family Responsibilities are payment expectations based on income and net worth. Property taxes are government imposed liabilities based on the value of the property that homeowners, and implicitly, renters must pay. To provide income sensitivity to the payment of property taxes, Minnesota has created Property Tax Refunds. In this section, a comparison of Assigned Family Responsibilities and Efforts are compared to the payment assignments resulting from Property Tax Refunds.

Homeowners and renters can qualify for Property Tax Refunds based on property tax liabilities, family sizes, and incomes. For purposes of this section, the Property Tax Refund formula for homeowners was used.[14] Family-Taxpayer Share was substituted for property tax liabilities, Adjusted Gross Income for Total Income, and it was assumed that the family had two dependents, as defined by the Property Tax Refund formula to obtain an alternative assignment to parents.[15] Effective assessment rates were calculated as the ratio of the family assignment and income. The assignment to taxpayers was the difference between the Family-Taxpayer Share and the assignment to families.

A comparison of these assignments and those used currently to calculate Minnesota State Grants are shown on the next page.

Property Tax Refund

Effective Assessment Rates

Assignments to Families

Assignments to Taxpayers

Assigned Family Responsibilities Compared to Payments for the Care of Disabled Children

Assigned Family Responsibilities are payment expectations based on income and net worth. The care of disabled children create costs that fall to the family. To provide income sensitivity to these payments, Minnesota has created reimbursement program. In this section, a comparison of Assigned Family Responsibilities and Efforts are compared to the payment assignments resulting from these reimbursements.

Familes can qualify for reimbursement based on costs of care of these children.[16] Family-Taxpayer Share was substituted for case costs, Adjusted Gross Income for Total Income, and it was assumed that this was a family of four to obtain an alternative assignment to parents. Effective assessment rates were calculated as the ratio of the family assignment and income. The assignment to taxpayers was the difference between the Family-Taxpayer Share and the assignment to families.

A comparison of these assignments and those used currently to calculate Minnesota State Grants are shown on the next page.

Care of Disabled Children

Effective Assessment Rates

Assignments to Families

Assignments to Taxpayers

Assigned Family Responsibilities Compared to the Child Care Sliding Scale

Assigned Family Responsibilities are payment expectations based on income and net worth. The care children create costs that fall to the family. To provide income sensitivity to these payments, Minnesota has created the Child Care Sliding Scale program. In this section, Assigned Family Responsibilities and Efforts are compared to the payment assignments resulting from these payments.

Families can qualify for payments based on costs of care of these children.[17] Family-Taxpayer Share was substituted for case costs, Adjusted Gross Income for Income, and it was assumed that this was a family of four to obtain an alternative assignment to parents. Effective assessment rates were calculated as the ratio of the family assignment and income. The assignment to taxpayers was the difference between the Family-Taxpayer Share and the assignment to families.

A comparison of these assignments and those used currently to calculate Minnesota State Grants are shown on the next page.

Child Care Sliding Scale

Effective Assessment Rates

Assignments to Families

Assignments to Taxpayers

Endnotes

1. This section is from the *Overview of the Design for Shared Responsibility*.

2. *Minnesota Statutes 2006* 136a.101 subdivision 5a.

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

4. See Carnegie Council (1979), especially pages 160-163.

5. "To be sure, accurate information about economic returns to education, academic requirements, college costs, and student financial aid are essential ingredients in the educational decision making of low-income families, which should begin in middle-school at the latest. The simplicity of aid application forms and processes is also paramount. But, for very different reasons, neither factor explains the decisions low-income families are making, nor offers a simple solution to the access problem." [Advisory Committee on Student Financial Assistance (1991, p. 14)]

6. For more information about the Institutional Methodology, see http://www.collegeboard.com/highered/res/im/im.html

7. Section 568 of the Improving America's Schools Act of 1994 sets forth the conditions under which financial aid officers from different colleges and universities may establish common approaches for awarding non-federal, or institutional, student aid. Section 568 applies only to institutional aid and only to colleges and universities that admit all students on a need-blind basis – that is, without considering the financial circumstances of the student or the student's family. Membership in this group changes over time.

8. Since 2001, the pressure in the labor markets has been reduced by the general economic downturn and the "jobless" recovery and the outsourcing of white collar jobs. The underlying issue has not disappeared. The baby boom generation will eventually leave the labor force.

9. 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 http://www.census.gov/hhes/www/income/histinc/f01ar.html (August 22, 2007)]. For 2006 and 2007, it was assumed all values would increase by 2% per year.

10. Married independent students with no other dependents are treated similarly to unmarried independent students with no dependents. Independent students with dependents other than a spouse are treated like parents of dependent students.

11. 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 Credits were not known so 2006 rates were used for 2007.

12. See the paper, *Overview of the Design for Shared Responsibility*.

13. See the paper, *More on Assigned Family Responsibilities: Dependent Students*.

14. Accessed at http://www.taxes.state.mn.us/prop_refund/algorithms/ho_algorithm_06.pdf (November 28, 2007).

15. The maximum refund values in the formula were not used in this analysis.

16. Accessed at *Laws of Minnesota 2007*, Chapter 147, Article 2, Section 2.

17. Accessed at *Laws of Minnesota 2007*, Chapter 147, Article 2, Section 9

How Families Pay for College:

An Analysis of National and State-Level Survey Research

Staff Background Paper

Prepared by:

Staff of the Minnesota Office of Higher Education

February 15, 2008

Contents

Introduction

In chapter 1 of the *Preliminary State Grant Review*, one of the basic components of the design is the Family-Taxpayer Share. In the conceptual framework for this program, after the students' responsibilities for their 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 meet those costs for their children attending postsecondary institutions. This paper summarizes some of the key research efforts to capture information on how families finance their students' postsecondary education.

The studies presented 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 of those contributions and the broader economy on families. To get specific data on families' financial decision making, the studies utilized various survey instruments to discover what method or combination of methods families have used to pay for their children's educational costs. Surveys have been used exclusively or as a supplement to existing data in part because detailed information about the use and impact of the wide variety of available funding strategies does not exist in one detailed data set. Surveys have also been used to capture changes in the economy and corresponding shifts in personal finance decisions. Available information on families' educational financing has also been more limited at the state level. 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 employ different models to explore the varied ways families help finance the costs of higher education for their dependent children. They are presented by their geographic reach—whether they use national or Minnesota-specific data—and by their methodological scope—those that utilize a comprehensive approach that explores parents' range of financing options, as well as those with a more narrow focus, such as on specific savings programs. Additional contextual studies, such as on the attitudes of parents and the broader public about financing options for educational costs and other postsecondary affordability indicators, are also included in brief. Some of the studies, such as the comprehensive survey conducted in Minnesota, are over ten 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 their impacts 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 1991-92 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 1991-92 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.

National Data

"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 1992-93 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 1997-98.

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 1986-87 and 1997-98, the amount parents contributed decreased by 8 percent, according to the survey, while between 1986-87 and 1996-97, 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 1992-93 and 1997-98 (Stringer et al., 1998, p. 31-32). Additionally, the amounts parents borrowed through the PLUS loan program between 1986-87 and 1992-93 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).

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 the 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 actual saving and borrowing patterns, which tie yearly income more closely to consumption patterns 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. TThis analysis then informs

the search for 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., pp. 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. The most prevalently reported were utilizing current income by reducing other expenditures and drawing out of existing savings (defined as savings accounts, money markets, or CDs) (Stiglitz et al., 2000, p. 40); these two financing approaches were the most commonly used across public and private four-year institutions and public two-year institutions. 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). Using retirement funds was the next most commonly reported strategy, rated fifth out of eleven options. 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 (Stiglitz et al., p. 40). The authors also analyze state-level data from the U. S. Department of Education. Minnesota ranked eleventh in average tuition costs for 1998-99 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).

Findings. 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. 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 a 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 (pp. 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 2 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, pp. 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, pp. 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.

Student and Family Finance Studies

Minnesota Data

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 who responded that they had not received financial support and 26 parents who 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

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) 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 nondoctoral 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 meet 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.

Findings. 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 expenses; 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, pp. 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, nonborrowers 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 1982-83 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 4-year program and their educational expenditures are lower, "suggesting that they are attending lower cost and possibly lower quality schools" (Kalenkoski, 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.

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 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

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, pp. 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).

In the spring of 2007, Public Agenda released 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. 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. 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. Yet 84 percent of the parents surveyed felt they would be able, somehow, to finance their child's education costs.

Summary

The 2002 report *Losing Ground* by the National Center for Public Policy and Higher Education focused the issue of affordability on the impacts economic changes have on students and families:

> "Regarding *affordability*, we know that state support of public colleges and universities has increased; that these increases have not been commensurate with the rising costs of providing higher education; that the largest portion of these costs has been borne by students and families through increases in tuition; and that tuition is increasingly financed by student borrowing" (p. 9).

Losing Ground further emphasizes the need to look at affordability at the state level, due not only to differences in policies, costs, and systems of higher education and but to variations in family income.

The studies presented in this paper highlight the importance of this more detailed level of analysis into family financing of postsecondary educational costs. The studies reveal changes in how families finance students' postsecondary educational costs, in how the line between parent and student contributions is often unclear and shifting, and how those changes and their relative impacts on individuals are highly varied, both by family and over time.

General Findings:

- Families use a variety and combination of strategies to finance postsecondary costs.
- Postsecondary costs remain a high priority in family financial planning, but other priorities, such as the need to save for retirement, are dominating financial concerns.
- There is a scarcity of current family financial decision making data at the state level.
- The assignment of parent and student contributions may not approximate actual decision making or shifts in financing strategies.
- Parents may not be realistic in their estimates of the costs of college, nor in their preparation to meet those costs.
- Many parents are not saving at an adequate rate to be able to contribute to their child's postsecondary costs.
- Rising educational costs have had a disproportionate effect on different groups of students, from families at different income levels, attending different institutional types.
- Certain groups of borrowers, both students and parents, are taking out increasing amounts of debt and putting themselves at increased risk.

- Saving and borrowing patterns are highly influenced by changes in the overall economy as well as changes in the costs to attend college.

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

- The extent to which family finances played a role in students not attending or dropping 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.

The studies also illustrate some shared conclusions about studying parental financing strategies: families' financial decision making and planning change substantially with the global economy, with changes in family situation, and with changes in the financing programs and products available. Parents' income, contribution level, 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 range of strategies families actually use.

While there is divergence as to the relative impact of a particular financing strategy, there is consensus that the strategies used have a material impact on students and on families. 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, can 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

Staff Background Paper

February 2008

Minnesota Office of Higher Education

Comparing the Minnesota State Grant Program

The annual survey conducted by the National Association of State Student Grant and Aid Programs released July 2007, indicates states awarded nearly $8.5 billion in student financial aid in academic year 2005-06, an increase of seven percent from the $7.9 billion awarded in 2004-2005, an increase of about three percent in constant dollar terms. Federal grant aid not targeted to veterans and the military (which includes the Pell Grant program and two substantially smaller programs) provides about $13 billion in grant aid to students across the country annually. States provide an additional $7 billion in grant aid annually including both need- and merit-based aid.

Forty-six states identified state-funded undergraduate programs with awards based solely on need, and 31 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, with the rest, 32 percent, accounted for by other programs and by programs with both need and merit components.

The amount of undergraduate aid awarded in 2005-2006 through programs with a merit component increased to about $2.6 billion. This compared to $3.6 billion awarded to undergraduates through programs based only on need. Washington DC, South Carolina, Georgia, New York, and Indiana provided the greatest amount of grant aid on a per capita basis and the largest amount of aid per capita for the population ages 18 through 24. South Carolina, Georgia, New York, Kentucky, and New Jersey provided the most undergraduate grant dollars compared to undergraduate full-time equivalent enrollment. South Carolina, Vermont, Georgia, West Virginia and New York 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 which assists Minnesota residents attending public and private postsecondary institutions in Minnesota. The program, first established in 1973, awards approximately $145 million in gift aid to 70,000 students each year. The Minnesota State Grant program is based solely on need, however, students must continue to make satisfactory progress towards their degrees or certificates in order to continue to receive the award. Minnesota is one of 32 states allowing students who attend proprietary institutions to receive state grants.

Minnesota's State Grant program is the 18th largest in the nation overall. The program ranks eighth in the nation in estimated need-based grant dollars per full-time student.

Minnesota's State Grant program ranked 16th in the nation in overall grant aid per capita. The state's rank was also 16th in grant dollars awarded per population age 18 through 24.

Total State Awarded Grant Dollars Per Capita 2005-2006

	STATE	Estimated population	Total Grant Dollars/Population
1	Washington, DC	550,521	$61.5
2	South Carolina	4,255,083	60.51
3	Georgia	9,072,572	51.3
4	New York	19,254,630	46.73
5	Indiana	6,271,973	45.76
6	Kentucky	4,173,405	41.42
7	West Virginia	1,816,856	39.21
8	Pennsylvania	12,429,616	33.18
9	New Mexico	1,928,384	32.5
10	Illinois	12,763,371	30.02
11	Vermont	623,050	29.82
12	New Jersey	8,718,925	29.53
13	Tennessee	5,962,959	29.52
14	Washington	6,287,759	27.65
15	Louisiana	4,523,621	26.09
16	Minnesota	5,132,799	25.52

Source: 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 10th largest in the country.

Total Need-Based State Grant 2005-2006

	State	Need-Based State Grant in Millions
1	New York	$862.03
2	California	757.80
3	Pennsylvania	400.00
4	Illinois	347.38
5	New Jersey	194.09
6	Texas	186.18
7	Washington	153.93
8	Ohio	147.25
9	Indiana	145.43
10	Minnesota	124.29

Source: National Association of State Student Grant and Aid Programs

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

State Need-Based Aid Awarded Per Capita 2005-2006

	STATE	Undergraduate FTE	Total Need-Based Grant Dollars/FTE
1	New York	797,619	$1,096
2	New Jersey	261,489	855
3	Pennsylvania	504,299	801
4	Washington	240,701	695
5	Indiana	255,429	690
6	Illinois	522,984	680
7	Vermont	28,646	609
8	Minnesota	224,274	584

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

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	79.40%
2	Alaska	70.40%
3	Kentucky	63.40%
4	South Carolina	62.40%
5	Oklahoma	56.30%
6	Nevada	53.40%
7	Nebraska	52.10%
8	New Mexico	50.50%
9	Puerto Rico	43.80%
10	Minnesota	42.30%

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

When only need-based state grant programs are considered, Minnesota had the sixth highest need-based average award per full-time student at $1,748 compared to Alaska at $992, Oklahoma at $739, Nevada at $1,266, Nebraska at $729 and Puerto Rico at $304.

Average Need-Based Award Per Full-Time Student 2005-2006

	State	Number of Awards/FTE	Maximum Award	Number of Awards	Average Award
1	Alaska	70.40%	$3,000	506	$992
2	Oklahoma	56.30%	$1,300	26,724	$739
3	Nevada	53.40%	$5,630	10,362	$1,266
4	Nebraska	52.10%	$2,634	13,609	$729
5	Puerto Rico	43.80%		67,177	$304
6	Minnesota	42.30%	$7,861	71,108	$1,748

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 higher education enterprise in that state. Minnesota's State Grant is 9.6 percent when compared to the funds the state contributes to the operating expenses of the higher education enterprise.

State Financial Aid as a Percentage of Higher Education Operating Expenses 2005-2006

	State	State Grant as a Percent of Operating Expenses
1	South Carolina	32.60%
2	Vermont	22.60%
3	Georgia	22.30%
4	West Virginia	20.60%
5	New York	20.50%
6	Pennsylvania	20.10%
7	Indiana	20.10%
8	Tennessee	15.10%
9	Illinois	14.50%
10	Kentucky	14.30%
11	New Jersey	12.70%
12	Florida	11.30%
13	Washington	10.70%
14	Colorado	10.50%
15	Ohio	10.00%
16	Michigan	9.60%
17	Minnesota	9.50%

Source: National Association of State Student Grant and Aid Programs

Most need-based state grant programs use the Federal Need Analysis as the basis for their grant calculation. Among the states that use the Federal Need Analysis, seven states modify the results.

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. In 2005, Illinois changed its full-time definition to 15 credits.

Most states start their state grant award calculation with the budget of the student. Thirty-five states use the total cost of attendance with no budget maximums. Thirteen states, including Minnesota, use the cost of attendance with a maximum tuition and fee amount. Four states start their state grant calculation by looking at only the tuition and fee cost for students. States that start the state grant calculation by looking at the student cost of attendance generally subtract the Pell grant before deciding the state grant award amount. A survey taken in 1999 found that 23

states specifically mentioned subtracting the Pell Grant from the calculation. Other states restrict expenditures by setting a maximum award or funding a small percent of need so the state grant award is so small the amount of the Pell Grant rarely affects the amount of the state grant.

Minnesota funds all of the residual left after the student, parents, and the Pell grant are taken into consideration.

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 small separate targeted programs. Some of these programs are work study or loan programs. The Minnesota State Grant program allows student to receive a grant even if the student is only enrolled for three credits. Only students showing very high need would receive a state grant award if they were registered for only three credits.

Federal Tax Credits and the Tuition and Fee Deduction

Staff Working Paper

Prepared by:
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December 18, 2007

Contents

Introduction

In another paper, *Overview of the Design for Shared Responsibility*, Assigned Taxpayer Responsibilities were defined and their role within the Design described. Assigned Taxpayer Responsibilities is the portion of Recognized Prices of Attendance not covered by Assigned Student and Family Responsibilities. Coverage of Assigned Taxpayer Responsibilities is provided by Federal Pell Grants, and if necessary, Minnesota State Grants.

In addition to the estimated $12.9 billion in Federal Pell Grants awarded in Fiscal Year 2007, another estimated $5.9 billion of taxpayer investment through federal tax credits and the tuition and fee deduction was made in Fiscal Year 2007.[1] Taxpayer investments through grants such as Minnesota State Grants and Federal Pell Grants and by tax credits and deductions are some of the current taxpayers' investment vehicles. In this paper, tax credits and the tuition and fee deductions are described and their relationship to the assignments of Recognized Prices is examined.

Tax credits and tuition and fee deductions have three important characteristics that differ from traditional financial aid policies and practices:

- Reimbursement
- Outside Higher Education Act of 1965, as amended
- Expanded the income range

Minnesota State Grants, like Federal Pell Grants, are paid when students begin attending. Federal tax credits and tuition and fee deductions are reimbursements for out-of-pocket investments made by students and their families in the form of lower tax liabilities. These reimbursements are made after students and their families have financed the out-of-pocket expenses associated with attending. The impact of these investments on students' decisions and cash flows have not been examined.

The Higher Education Act of 1965, as amended, defines a number of federal financial aid programs and policies. Part of this Act is the Federal Need Analysis. In addition to defining individual programs, the Act prescribes coordination among awards. The coordination extends to state and other aid awarded to students receiving federal awards.

One of the contentious issues embodied in updating the Higher Education Act of 1965 is the distribution of investments across the income spectrum. For most investments, the policies and programs of the Act focuses on lower income students and families. Tax credits and deductions extend the income range to more than $160,000, far above any income levels receiving direct taxpayer investments through programs of the Higher Education Act.

Federal Tax Credits

Taxpayers, beginning with the filing of their 1998 federal income taxes, have been claiming Federal Hope and Lifetime Tax Credits. These credits were created by the Tax Relief Act of 1997. These credits reduce the tax burdens on families with the largest financial efforts assigned to them by the Federal Need Analysis.[2]

The concept of providing two years of grants equivalent to the tuition and fees charged by community colleges has been around for a long time but was first introduced as a possible tax break by the Clinton administration in December 1994 as part of the "Middle Class Bill of Rights." Somewhere along the way, the concept acquired the title of Federal Hope Scholarship Tax Credits to take advantage of the momentum developed by Georgia Governor Zell Miller for the Georgia Helping Outstanding Pupils Educationally (HOPE) grants.

Federal Lifetime Tax Credits are a result of long running efforts to make tuition payments an allowable federal personal income tax deduction. Federal Lifetime Tax Credits followed a policy and political path different from Federal Hope Tax Credits. The differences between the two tax credits are as much the result of their genesis as explicit policy decisions.

The qualifying expenses for federal tax credits are 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 people. 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.

For Federal Hope Tax Credits, students must attend at least "half-time" for at least one term during the tax year. The 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. For Federal Lifetime Tax Credits, no such restriction on registration loads or term length applies.

For Federal Hope Tax Credits, payments must be for courses leading to a degree, diploma, or certificate. For Federal Lifetime Tax Credits, payments could be for courses leading to a degree, diploma, or certificate **as well as** for courses taken by the student to acquire or improve job skills.

For tax year 2006, Federal Hope Tax Credits = 100% of the first $1,100 of qualifying tuition and applicable fees and 50% 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 = $1,650 per student.

For tax year 2006, Federal Lifetime Tax Credits = 20% of the first $10,000 of qualifying tuition and fees. The maximum Federal Lifetime Tax Credit per year = $2,000 per filer. The limit applies to the return, and thus, includes all individuals counted as exemptions on the filer's return.

The following students (and their families) would not qualify for Federal Hope or Lifetime Tax Credits.

- Filers not owing any federal income taxes; in the language of the tax world, this credit is non-refundable, that is, credits cannot exceed tax liabilities.

- For tax year 2006, filers earning more than $110,000 (calculated Adjusted Gross Income) if the filer is married and filing jointly (adjusted annually for inflation).

- For tax year 2006, unmarried filers earning more than $55,000; married filers filing separately cannot claim these tax credits.

- Students receiving more in price discounts (examples, grants, scholarships) than they were charged in tuition and applicable fees.

The following students and families would qualify for **maximum** Tax Credits:

- For Federal Hope Tax Credits, 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.

- For Federal Lifetime Tax Credits, families (filer and students) 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 Tax Credits.

The "first two years" provision in the Federal Hope Tax Credit has two conditions. First, the eligible educational institution where the student is enrolled must not have awarded the student two years of academic credit for post-secondary 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 is not taken into account. While this seems to be a little loophole for transfer students whose credits do not transfer, most probably are "caught" in the second condition.

Second, filers must not have claimed Federal Hope or Lifetime Tax Credits for this student in two or more prior tax years. While the "official" explanations describe Federal Lifetime 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 be claiming

Federal Lifetime Tax Credits as freshmen. Since tax years and academic years do not correspond, most students progressing on the traditional "four-year plan" will spread their first two academic years over three tax years so many families of sophomores will no longer be able to claim Federal Hope Tax Credits, but could be eligible for Federal Lifetime Tax Credits.

1. Federal Hope Tax Credits Impact on Students and Families

Although federal tax years and Minnesota fiscal years are usually defined differently, the analysis reported in this section assumes the tax credits apply to the same period as the Federal Pell and Minnesota State Grants. 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, as shown in the following table for Fiscal Year 2007. The mean Recognized Tuition and Fees for each group were 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 was partitioning 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

A. Dependent Students

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 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 that none of these families 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 and Minnesota State Grants for which they qualified. The filer's out-of-pocket tuition and fees were the net of the tuition and fees and the two grant amounts.

Federal Hope Tax Credits increased taxpayer investments. Correspondingly, they reduced the share of the price of attendance first assigned to families (Assigned Family Responsibilities) and to second assigned to students (Assigned Student Responsibilities). In following analysis, Federal Hope Tax Credits reduced Assigned Family Responsibilities and did not reduce Assigned Student Responsibilities. In the analysis presented in this section, the increase in taxpayer investments was used to reduce the amount assigned to families. If the credits exceed Assigned Family Responsibilities, the excess was used to reduce the assignment to students in this analysis.

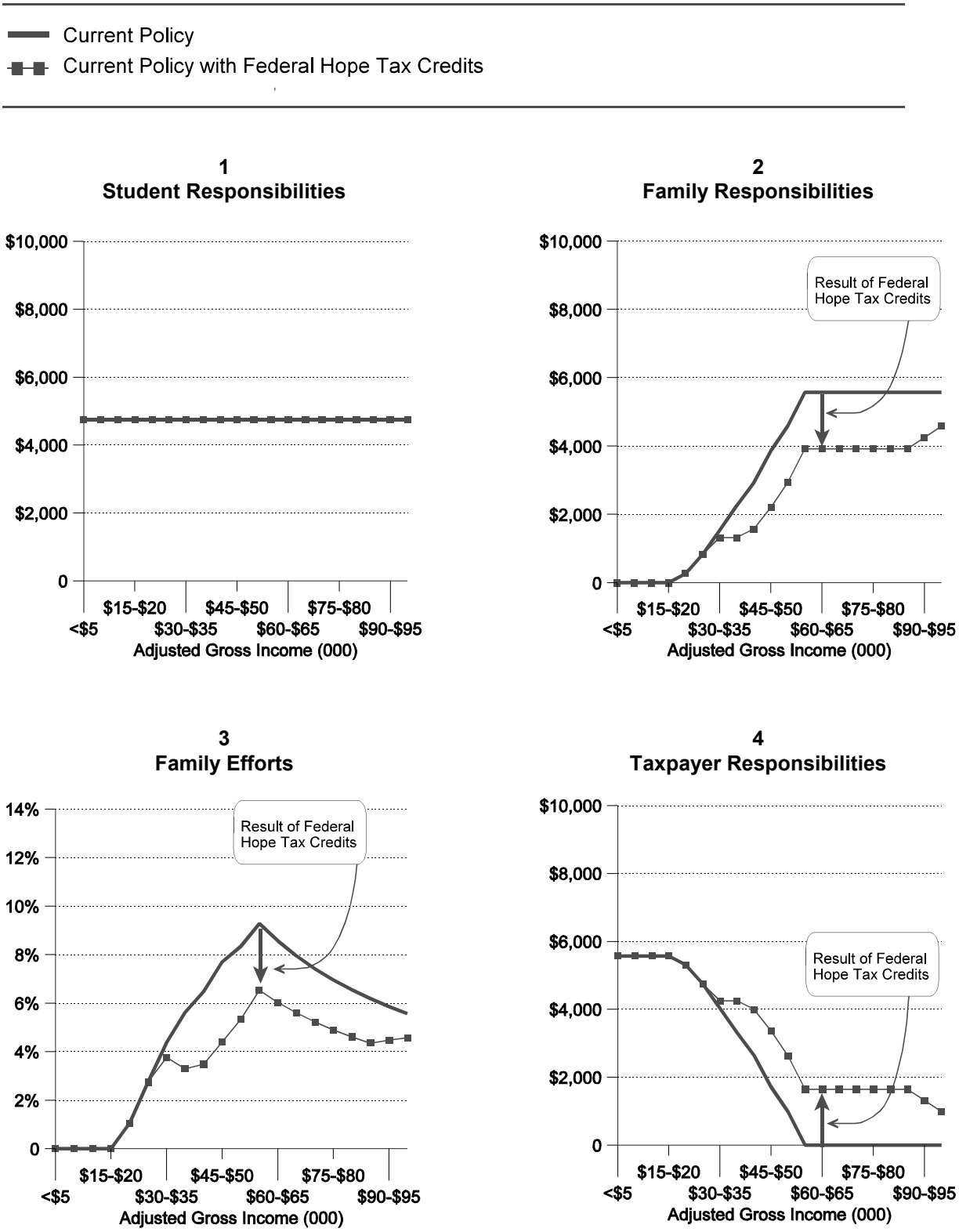
Two price points were used to describe the impact of Federal Hope Tax Credits on payment assignments. A lower price of $10,317 and a higher price of $15,462 were used. These two points were used to check the sensitivity of the credits to price.

i. Low Price Example

At the lower price ($10,317), Federal Hope Tax Credits increased taxpayer investment for typical dependent students from families reporting adjusted gross incomes of $35,000 or more up to the program cutoff of $110,000, as shown on panel 4 of the next chart. Assigned Taxpayer Responsibilities, as usually defined, is shown as a solid line, with the sum of Assigned Taxpayer Responsibilities and the calculated Federal Hope Tax Credit 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 credits, so the two lines in panel 4 are the same. 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 used and, therefore, have no out-of-pocket expenses as defined by the Internal Revenue code. 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.

Federal Hope Tax Credits Increased Taxpayers' Investments in Typical Dependent Students with Recognized Price of Attendance = $10,317



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 9 percent of adjusted gross income to 6 percent. This is equivalent to lowering the income tax rate by almost 3 percentage points.

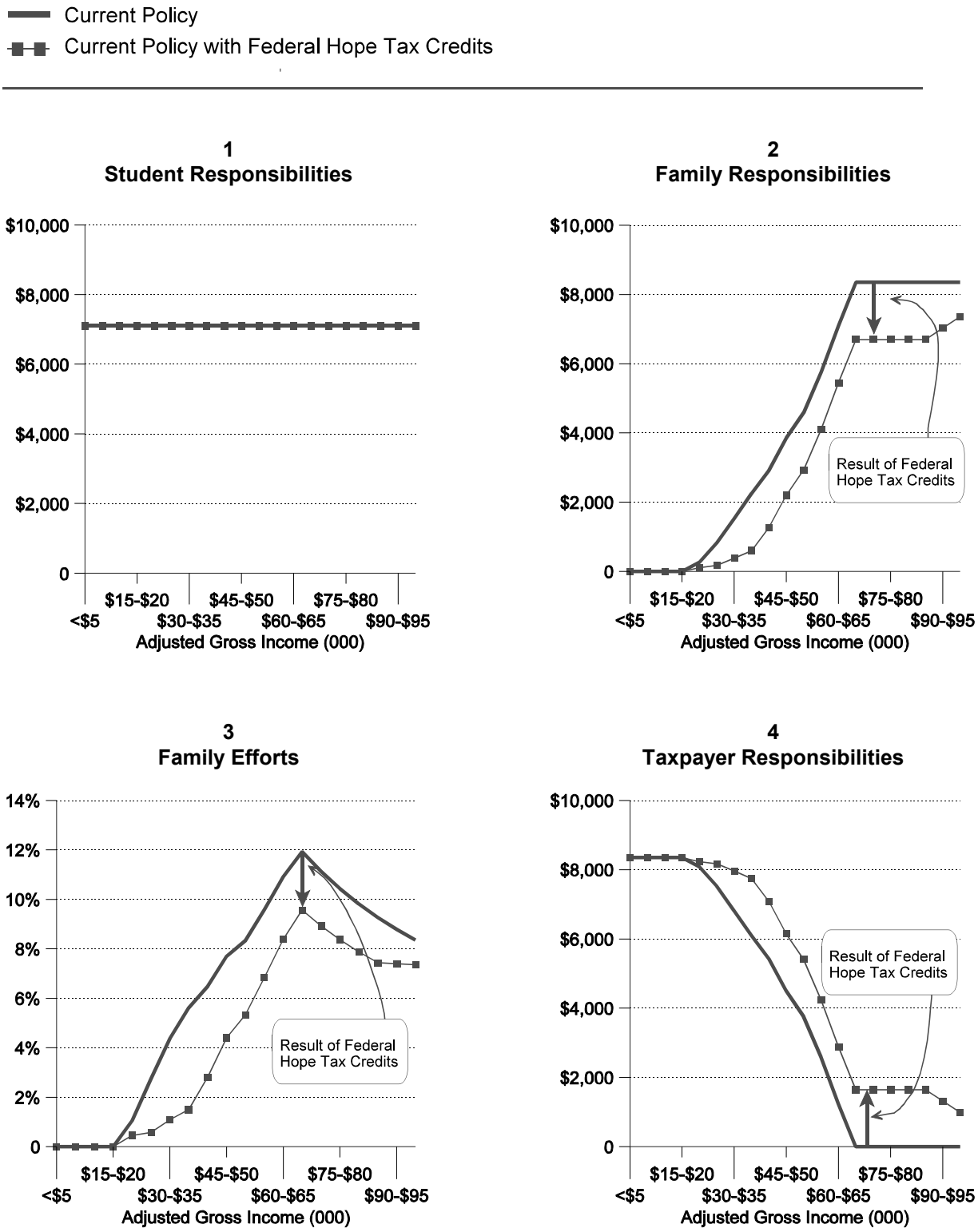
ii. Higher Price Example

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 program 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 credits. Unlike the low price example, students from families with incomes in the $20,000 to $30,000 range would be eligible for credits because the combination of Federal Pell and Minnesota State Grants was less than the qualifying tuition and fees used in this example.

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.

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 effort, as shown in panel 3, from 12 percent of adjusted gross income to 9 percent. This is equivalent to lowering the income tax rate by 3 percentage points.

Federal Hope Tax Credits Increased Taxpayers' Investments in Typical Dependent Students with Recognized Price of Attendance = $15,462



B. 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 credit, tax liabilities for a typical student in each of the 20 groups were calculated based on a household of one, and using the standard deduction. It was also assumed none of these individuals 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 and Minnesota State Grants for which they qualified. The tax filers' out-of-pocket tuition and fees were the net of the tuition and fees and the two grant amounts.

Federal Hope Tax Credits increased taxpayer investments (Assigned Taxpayer Responsibilities). Correspondingly, they reduced the share of the price of attendance first assigned to families (Assigned Family Responsibilities) and second assigned to students (Assigned Student Responsibilities). In following analysis, Federal Hope Tax Credits reduced Assigned Family Responsibilities and did not reduce Assigned Student Responsibilities

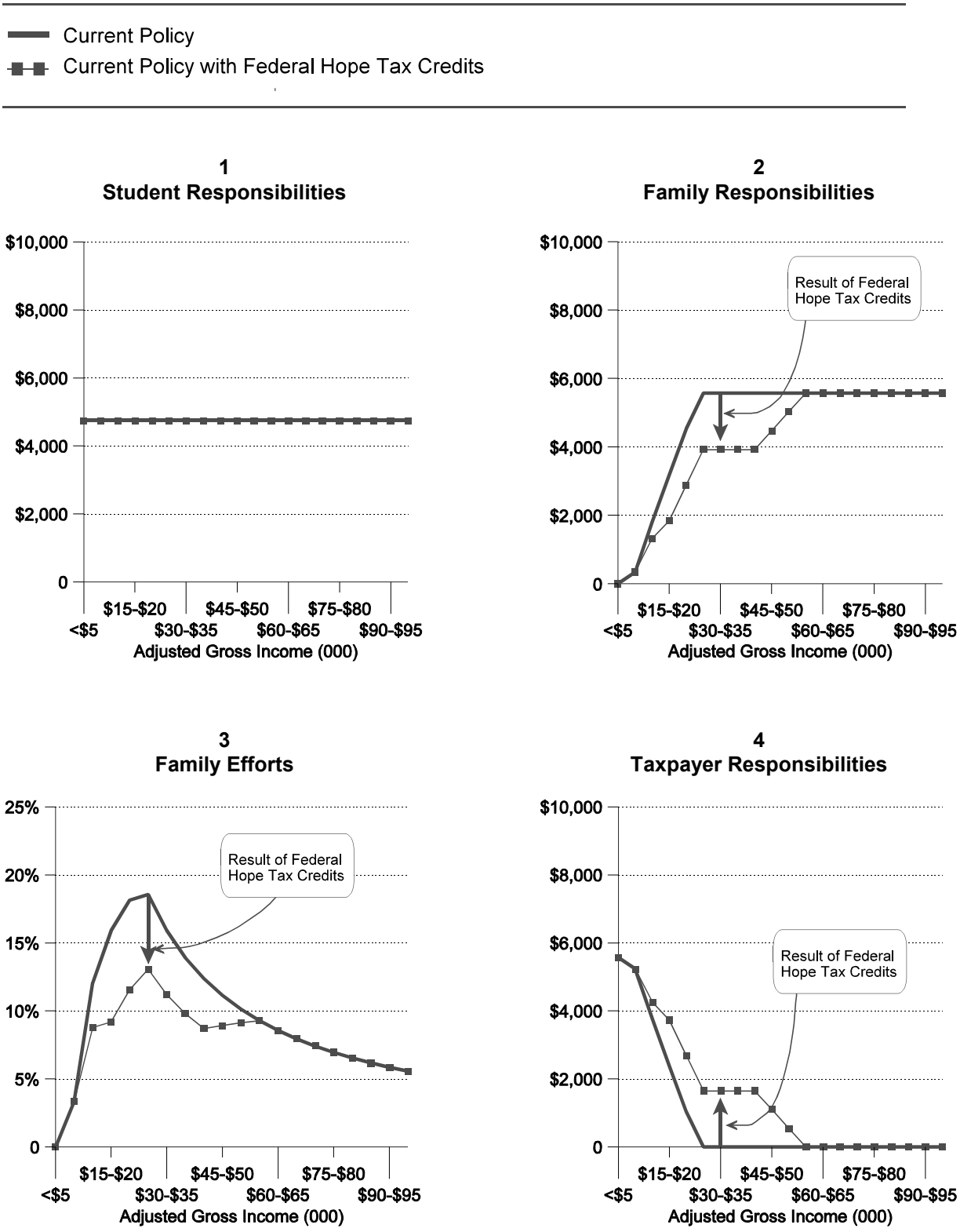
i. Low Price Example

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 program cutoff of $55,000, as shown on panel 4 of the next chart. Assigned Taxpayer Responsibilities, as usually defined, is shown as a solid line, with the sum of Assigned Taxpayer Responsibilities and the calculated Federal Hope Tax Credit 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 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 used for this chart and, therefore, had no out-of-pocket expenses as defined by the Internal Revenue code. Federal Hope Tax Credits shifted the portion of the income distribution receiving taxpayers' investment to the right from about $30,000 adjusted gross income to $55,000.

Increasing taxpayer investments through Federal Hope Tax Credits effectively reduced the amount assigned to families, as shown in panel 2. The lowering of assignments to families reduced the effort, as shown in panel 3, from 18 percent of adjusted gross income to 12 percent. This is equivalent to lowering the income tax rate by six percentage points.

Federal Hope Tax Credits Increased Taxpayers' Investments in Typical Unmarried Independent Students with No Dependents with Recognized Price of Attendance = $10,317



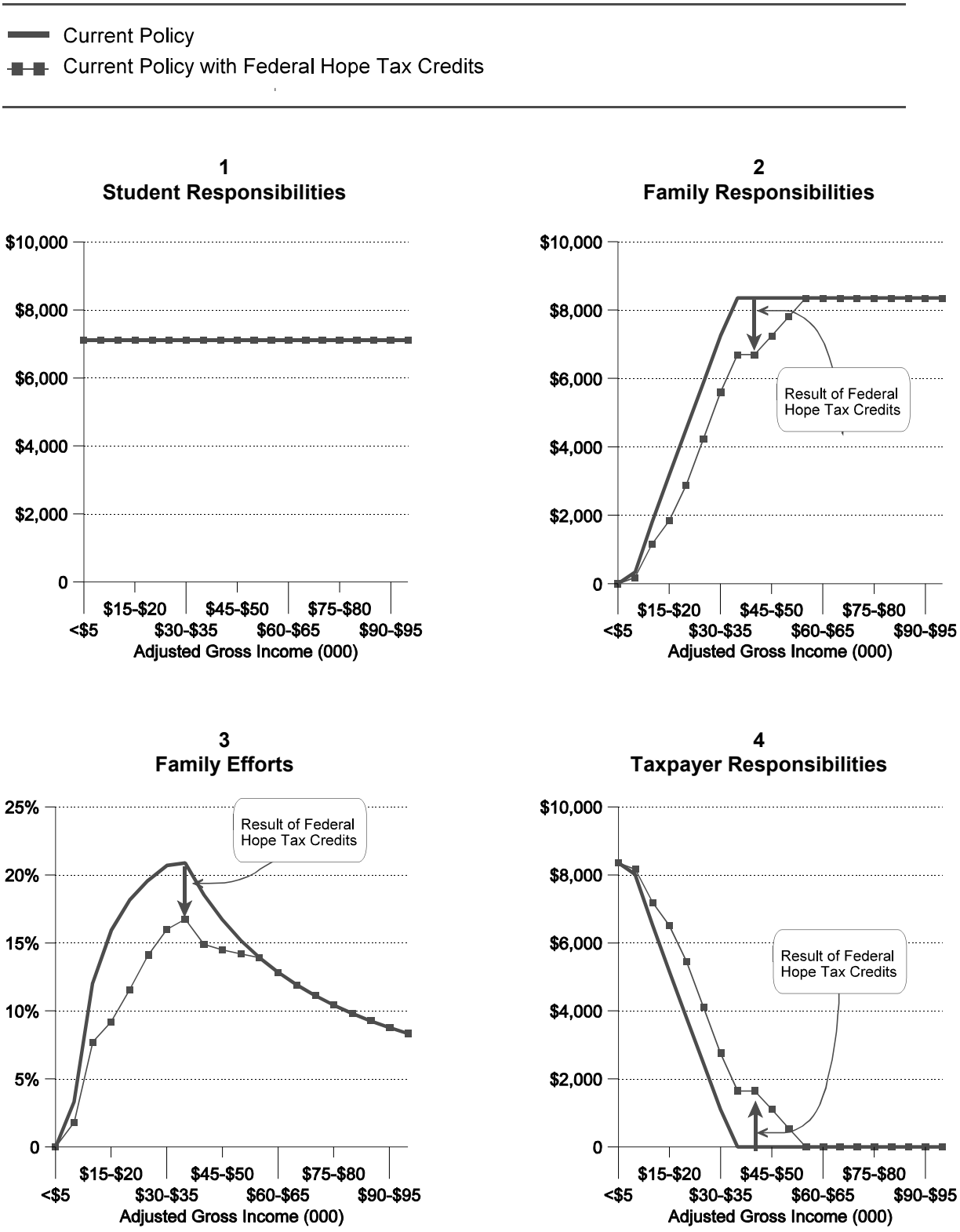
ii. Higher Price Example

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 program cutoff of $55,000, as shown on panel 4 of the next chart. Assigned Taxpayer Responsibilities, as usually defined, is shown as a solid line with the sum of Assigned Taxpayer Responsibilities and the calculated Federal Hope Tax Credit 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 credits, 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 adjusted gross income to $55,000.

Increasing taxpayer investments through Federal Hope 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 effort, as shown in panel 3, from 21 percent of adjusted gross income to 16 percent. This is equivalent to lowering the income tax rate by 5 percentage points.

Federal Hope Tax Credits Increased Taxpayers' Investments in Typical Unmarried Independent Students with No Dependents with Recognized Price of Attendance = $15,462



2. Federal Lifetime Tax Credits Impact on Students and Families

Following a format parallel to the analysis of the impact of Federal Hope Tax Credits, this section examines the impact of Federal Lifetime Tax Credits on the assignment of payment responsibilities. 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 recognizes 100 percent of the first $1,000 of out-of-pocket while Federal Lifetime Tax Credits recognizes only 20 percent.

A. Dependent Students

Consistent with standard State Grant Program distributional analyses, 20 Federal Lifetime Tax Credits were calculated along the income spectrum at $5,000 increments, from $0 to $100,000 adjusted gross income. Federal Lifetime 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 none of these families 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 and Minnesota State Grants for which they qualified. The out-of-pocket tuition and fees were the net of the tuition and fees and the two grant amounts.

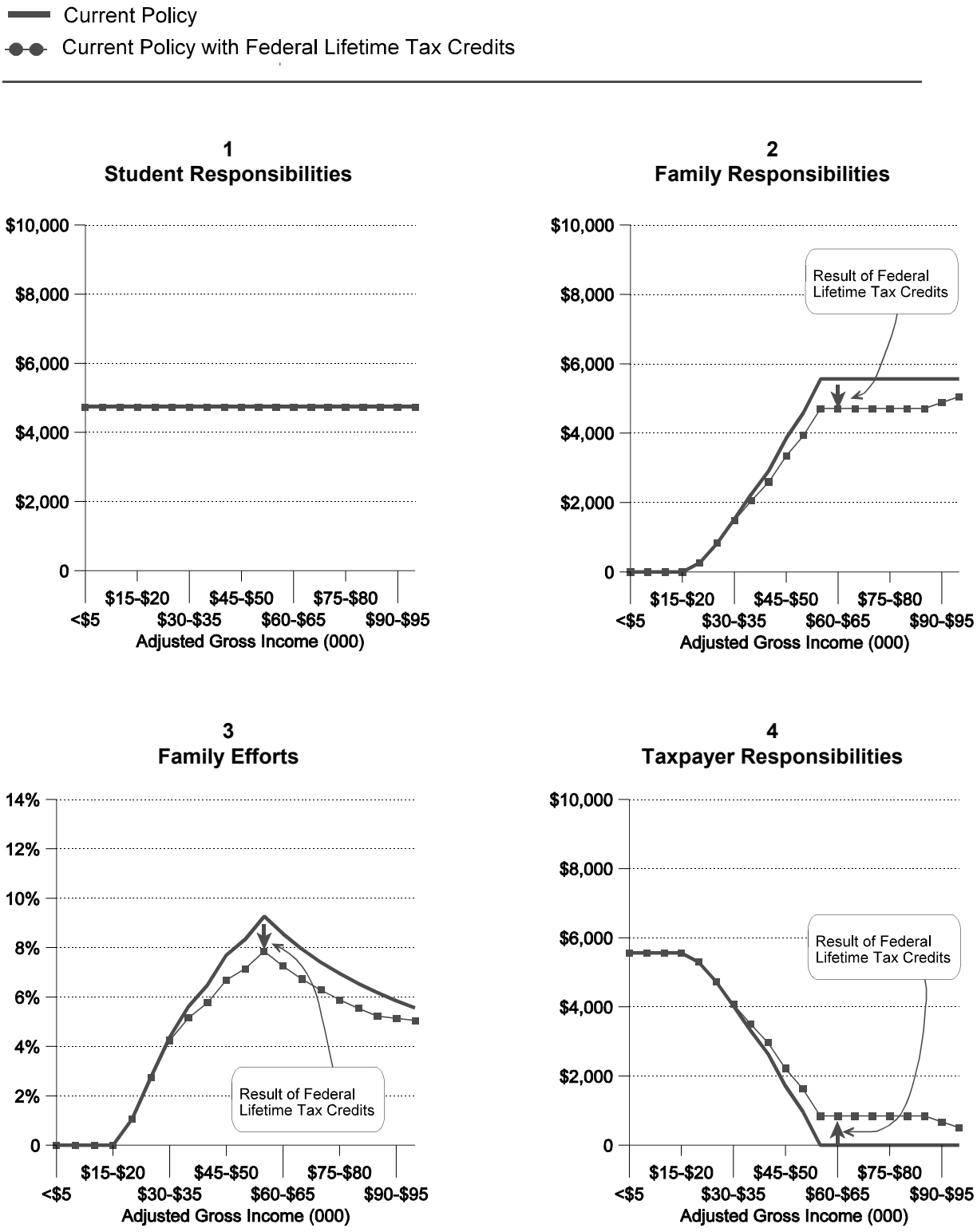
Federal Lifetime Tax Credits increased taxpayer investments (Assigned Taxpayer Responsibilities). Correspondingly, they reduced the share of the price of attendance assigned first to families (Assigned Family Responsibilities) and assigned second to students (Assigned Student Responsibilities). In the following analysis, Federal Lifetime Tax Credits reduced Assigned Family Responsibilities and did not reduce Assigned Student Responsibilities.

Two price points were used to describe the impact of Federal Lifetime 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.

i. Low Price Example

At the lower price ($10,317), Federal Lifetime Tax Credits increase taxpayer investment for typical dependent students from families reporting adjusted gross incomes of $35,000 or more up to the program cutoff of $110,000, as shown on panel 4 of the next chart. Assigned Taxpayer Responsibilities, as usually defined, is shown as a solid line with the sum of Assigned Taxpayer Responsibilities and the calculated Federal Lifetime Tax Credit shown as a dashed line.

Federal Lifetime Tax Credits Increased Taxpayers' Investments in Typical Dependent Students with Recognized Price of Attendance = $10,317



Families earning less than about $20,000 typically do not have a federal tax liability and do not qualify for credits, so the two lines in panel 4 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 used for this chart and, therefore, had no out-of-pocket expenses as defined by the Internal Revenue code. Federal Lifetime Tax Credits shifted the portion of the income distribution receiving taxpayers' investment to the right from about $65,000 adjusted gross income to $110,000.

Increasing taxpayer investments through Federal Lifetime 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 effort, as shown in panel 3, from 9 percent of adjusted gross income to 7 percent. This is equivalent to lowering the income tax rate by 2 percentage points.

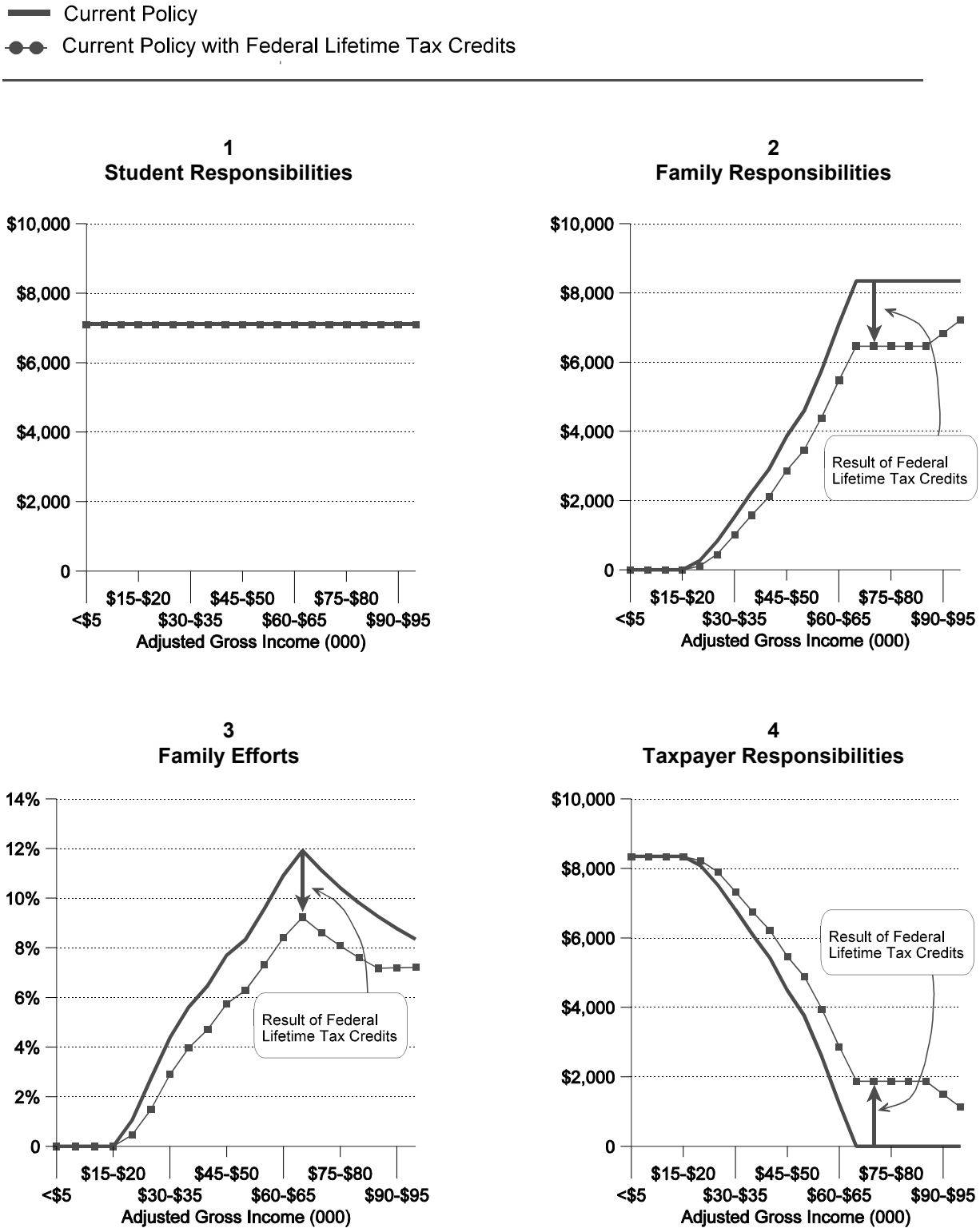
ii. Higher Price Example

At the higher price($15,462), Federal Lifetime Tax Credits increased taxpayer investment for typical dependent students from families reporting adjusted gross incomes from $20,000 up to the program cutoff of $110,000, as shown on panel 4 of the next chart. Assigned Taxpayer Responsibilities, as usually defined, is shown as a solid line, with the sum of Assigned Taxpayer Responsibilities and the calculated Federal Lifetime Tax Credit 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 credits, so the two lines in panel 4 are the same. Federal Lifetime Tax Credits shifted the portion of the income distribution receiving taxpayers' investment to the right from about $65,000 adjusted gross income to $110,000.

Increasing taxpayer investments through Federal Lifetime 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 effort, as shown in panel 3, from 12 percent of adjusted gross income to 9 percent. This is equivalent to lowering the income tax rate by 3 percentage points.

Federal Lifetime Tax Credits Increased Taxpayers' Investments in Typical Dependent Students with Recognized Price of Attendance = $15,462



B. Unmarried Independent Students with No Dependents

Consistent with standard State Grant Program distributional analyses, 20 Federal Lifetime Tax Credits were calculated along the income spectrum at $5,000 increments, from $0 to $100,000 adjusted gross income. Federal Lifetime Tax Credits were calculated for household size of one using the standard deduction. It was also assumed none of these individuals 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 and Minnesota State Grants for which they qualified. The out-of-pocket tuition and fees were the net of the tuition and fees and the two grant amounts.

Federal Lifetime Tax Credits increased taxpayer. Correspondingly, they reduced the share of the price of attendance assigned first to families (Assigned Family Responsibilities) and assigned second to students (Assigned Student Responsibilities). In the following analysis, Federal Lifetime Tax Credits reduced Assigned Family Responsibilities and did not reduce Assigned Student Responsibilities.

i. Low Price Example

At the lower price($10,317), Federal Lifetime 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 program cutoff of $55,000, as shown on panel 4 of the next chart. Assigned Taxpayer Responsibilities, as usually defined, is shown as a solid line with the sum of Assigned Taxpayer Responsibilities and the calculated Federal Hope Tax Credit shown as a dashed line.

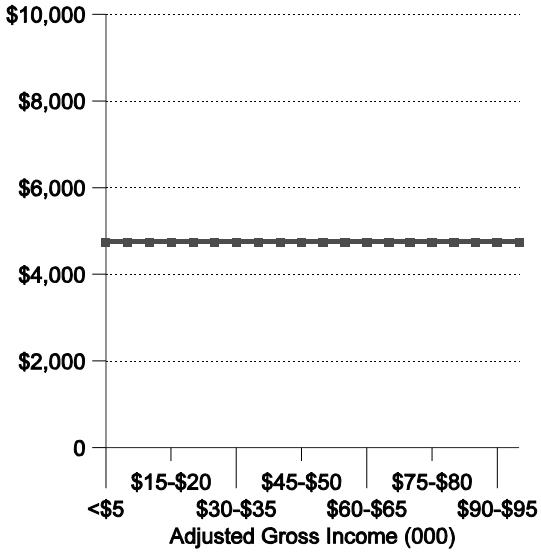
Individuals earning less than about $5,000 typically do not have a federal tax liability and do not qualify for credits, so the two lines in panel 4 are the same. In this analysis, typical students earning less than $10,000 received more in Federal Pell and Minnesota State Grants than the tuition and fees used for this chart and, therefore, had no out-of-pocket expenses as defined by the Internal Revenue code. Federal Lifetime 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.

Increasing taxpayer investments through Federal Lifetime Tax Credits effectively reduced the amount assigned to families, as shown in panel 2. The lowering of assignments to families reduces the effort, as shown in panel 3, from 18 percent of adjusted gross income to 16 percent. This is equivalent to lowering the income tax rate by 2 percentage points.

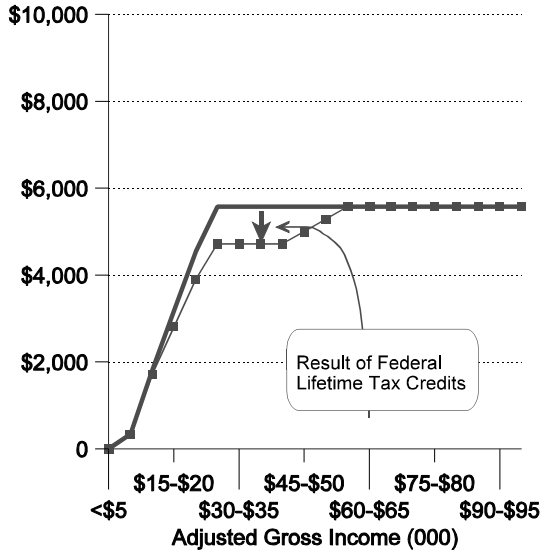
Federal Lifetime Tax Credits Increased Taxpayers' Investments in Typical Unmarried Independent Students with No Dependents with Recognized Price of Attendance = $10,317

Current Policy
Current Policy with Federal Lifetime Tax Credits

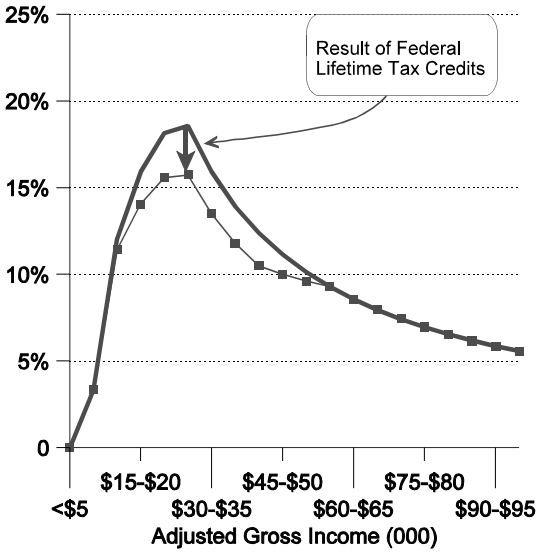
1
Student Responsibilities



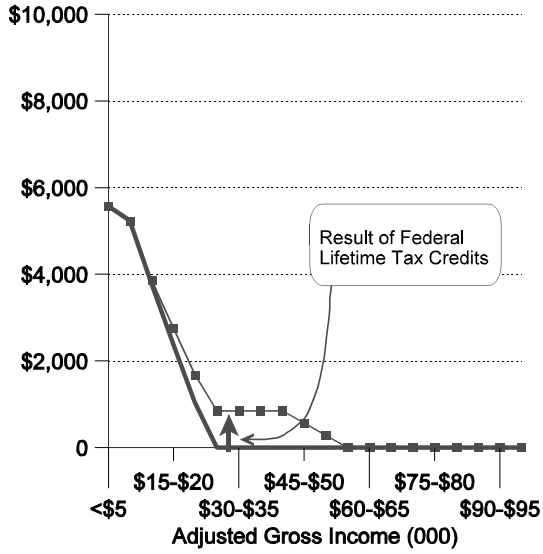
2
Family Responsibilities



3
Family Efforts



4
Taxpayer Responsibilities



ii. Higher Price Example

At the higher price ($15,462), Federal Lifetime 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 program cutoff of $55,000, as shown on panel 4 of the next chart. Assigned Taxpayer Responsibilities, as usually defined, is shown as a solid line, with the sum of Assigned Taxpayer Responsibilities and the calculated Federal Hope Tax Credit shown as a dashed line.

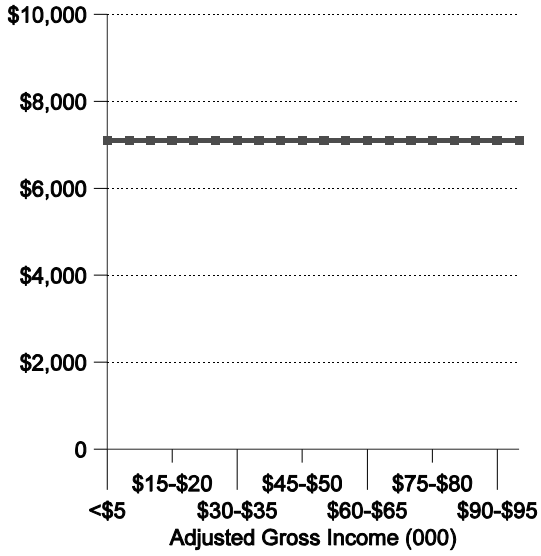
Individuals earning less than about $5,000 typically do not have a federal tax liability and do not qualify for credits, so the two lines in panel 4 are the same. Federal Lifetime Tax Credits shifted the portion of the income distribution receiving taxpayers' investment to the right from about $40,000 adjusted gross income to $55,000.

Increasing taxpayer investments through Federal Lifetime 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 effort, as shown in panel 3, from 21 percent of adjusted gross income to 16 percent. This is equivalent to lowering the income tax rate by 5 percentage points.

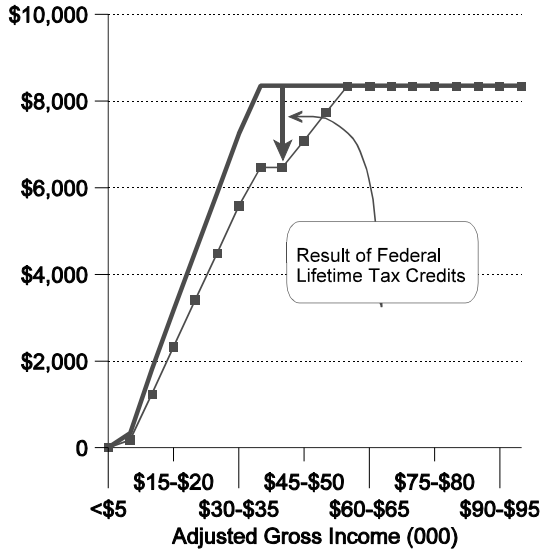
Federal Lifetime Tax Credits Increased Taxpayers' Investments in Typical Unmarried Independent Students with No Dependents with Recognized Price of Attendance = $15,462

Current Policy
Current Policy with Federal Lifetime Tax Credits

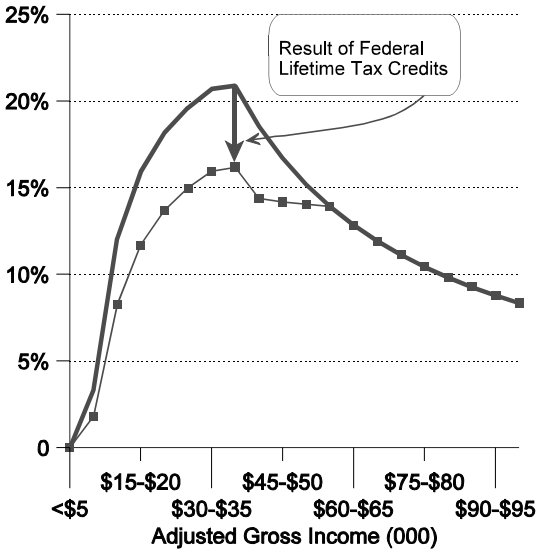
1
Student Responsibilities



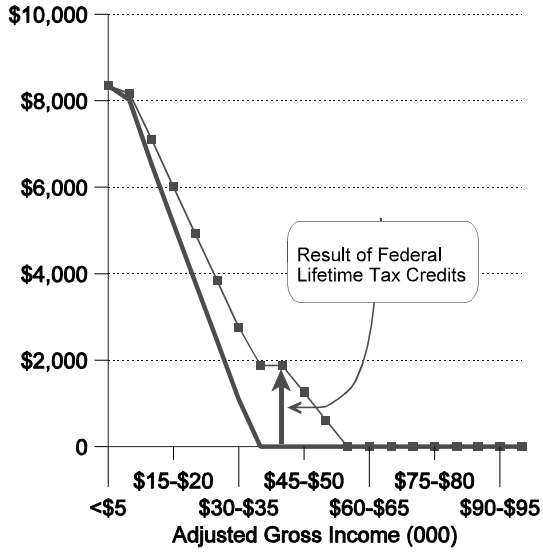
2
Family Responsibilities



3
Family Efforts



4
Taxpayer Responsibilities



Federal Tuition and Fee Deductions

Taxpayer investments made through the federal tax code were expanded by the Economic Growth and Tax Relief Reconciliation Act of 2001, HR 1836, a $1.35 trillion tax cut. HR 1836 included a number of provisions targeted to post-secondary students (and their parents). In this section, only the portion of the ACT related to the Tuition and Fee Deduction(Sec 431) was considered.[4]

The definitions of qualified expenses for the Deduction are the same as for the Federal Hope Tax Credits, the out-of-pocket or net tuition and applicable fees paid by the filer and student.[5] For Tax Year 2006, the applicable dollar limit per filer[6] was:

- For married filers filing jointly with adjusted gross income ≤ $130,000: $4,000.
- For unmarried filers with adjusted gross income ≤ $65,000: $4,000.
- 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: $2,000.
- In the case of any other taxpayer, zero.

A particular expenditure can be used to claim only one benefit, for example, the filer must choose between a Federal Hope Tax Credit and the Tuition and Fee Deduction. In some cases, the filer can claim the net tuition and fees less certain other exclusions as a qualified expense for the Tuition and Fee Deduction. For example, the distribution of earnings under a 529 plan, distributions from a Coverdell Education Savings Account, and Series EE Savings Bonds are treated as deductions to the net tuition and fees reported by the institution for purposes of determining the qualified expense for the Tuition and Fee Deduction. These savings and investments are treated like tax-free scholarships and grants.

Claiming the Tuition and Fee Deduction for purposes of calculating federal income taxes will affect Minnesota State income tax base. The base for Minnesota State income taxes is the filer's federal taxable income (calculated on Form 1040). The Tuition and Fee Deduction affects the filer's adjusted gross income and thus, federal taxable income.

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. Like the tax credits, the Deduction is based on the same out-of-pocket tuition and fee payments. The impact of the deduction depends on the marginal tax rate of the filer rather than a percentage of out-of-pocket tuition and fees.

1. 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 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 none of these filers would be subject to the Alternative Minimum Tax.

The typical impact 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 for which they qualified. The out-of-pocket tuition and fees were the net of the tuition and fees and the two grant amounts.

The Federal Tuition and Fee Deduction increased taxpayer investments. Correspondingly, they reduced the share of the price of attendance assigned first to families (Assigned Family Responsibilities) and assigned second to students (Assigned Student Responsibilities). In the following analysis, the Federal Tuition and Fee Deduction reduced Assigned Family Responsibilities and did not reduce Assigned Student Responsibilities.

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 are used to check the sensitivity of the credits to price.

A. Low Price Example

At the lower price ($10,317), the deduction increases taxpayer investment for typical dependent students from families reporting adjusted gross incomes of $35,000 or more up to the program cutoff of $160,000, see panel 4 of the next chart. Assigned Taxpayer Responsibilities, as usually defined, is shown as a solid line, with the sum of Assigned Taxpayer Responsibilities and the calculated Tuition and Fee Deductions shown as a dashed line.

Families earning less than about $20,000 typically do not have a federal tax liability and the deduction is moot, so the two lines in panel 4 are the same. 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 used for this chart and, therefore, had no out-of-pocket expenses as defined by the Internal Revenue code. 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.

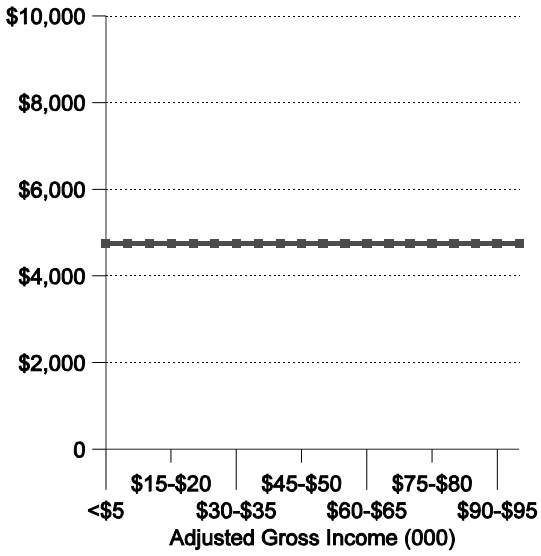
Increasing taxpayer investments through the deduction effectively reduced the amount assigned to families (parents, in this case), as shown in panel 2. The lowering of assignments to families reduced the effort, as shown in panel 3, from 9 percent of adjusted gross income to 7 percent.

Federal Tuition and Fee Deductions Increased Taxpayers' Investments in Typical Dependent Students with Recognized Price of Attendance = $10,317

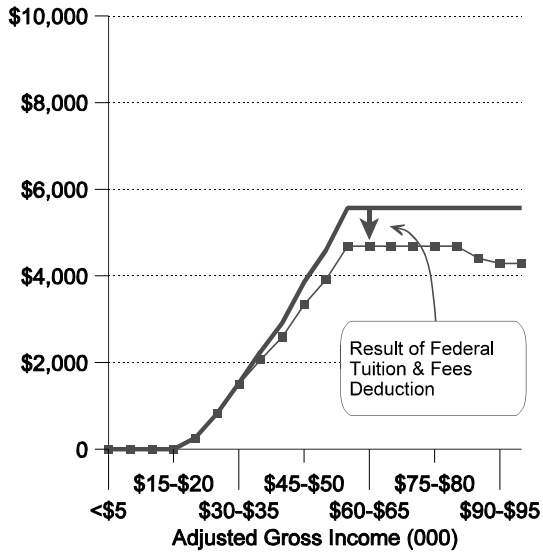
Current Policy

Current Policy combined with impact of Federal Tuition and Fee Deductions

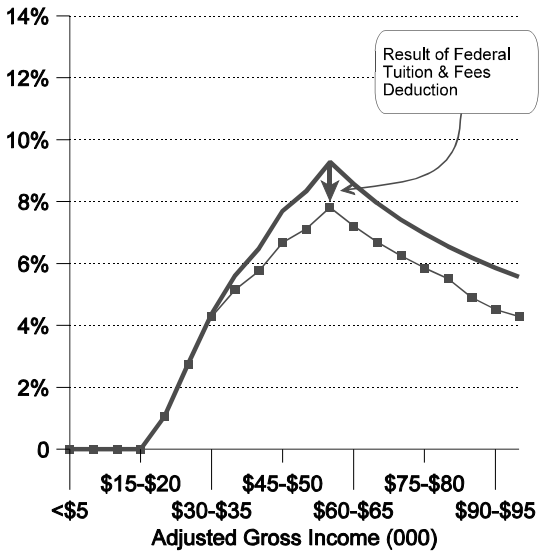
1
Student Responsibilities



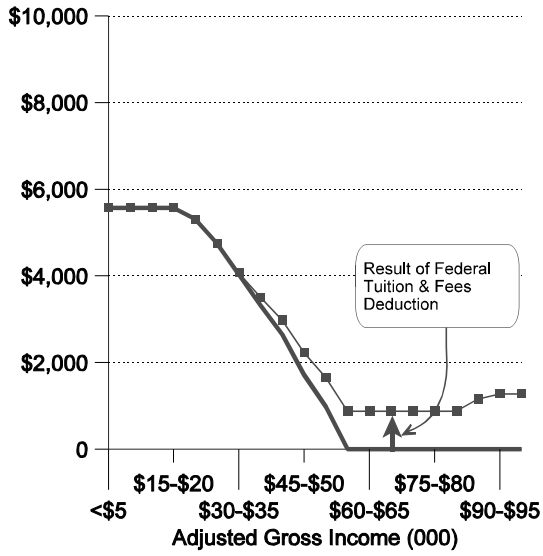
2
Family Responsibilities



3
Family Efforts



4
Taxpayer Responsibilities



B. Higher Price Example

At the higher price($15,462), the 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 moot. 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 is less than the qulified tuition and fees used in this example.

The deduction shifted the portion of the income distribution receiving taxpayers' investment to the right from about $65,000 adjusted gross income to $160,000.

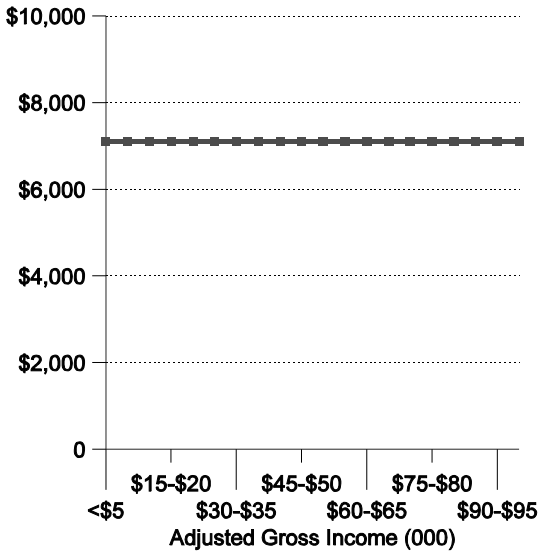
Increasing taxpayer investments through the deduction effectively reduced the amount assigned to families (parents, in this case), as shown in panel 2. The lowering of assignments to families reduced the effort, as shown in panel 3, from 12 percent of adjusted gross income to 10 percent. This is equivalent to lowering the income tax rate by almost 2 percentage points.

Federal Tuition and Fee Deduction Increased Taxpayers' Investments in Typical Dependent Students with Recognized Price of Attendance = $15,462

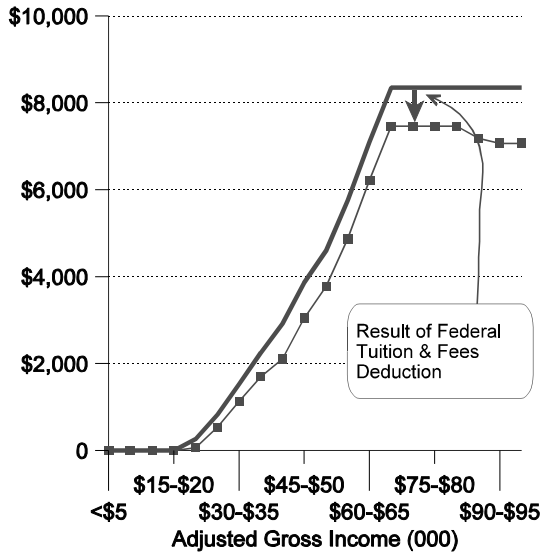
Current Policy

Current Policy combined with impact of Federal Tuition and Fee Deductions

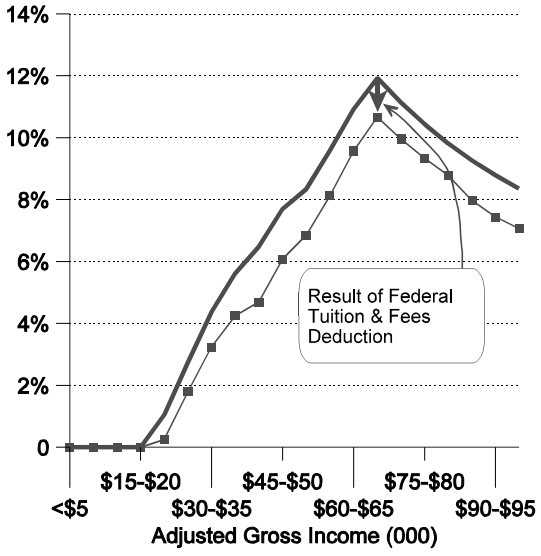
1
Student Responsibilities



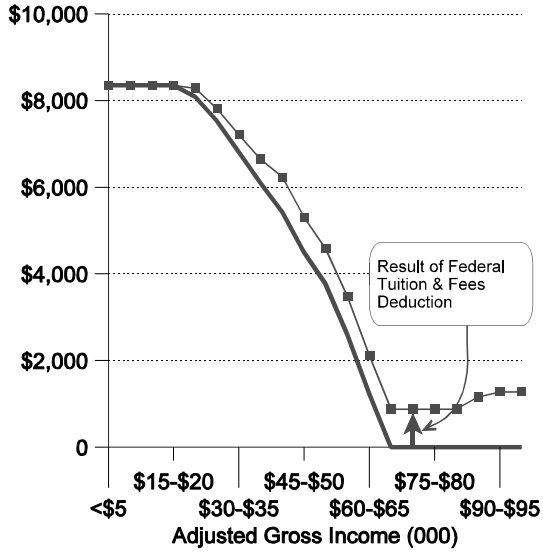
2
Family Responsibilities



3
Family Efforts



4
Taxpayer Responsibilities



2. Unmarried Independent Students with No Dependents

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 Deduction was calculated for a household size of one using the standard deduction. It was also assumed none of these individuals 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 and Minnesota State Grants for which they qualified. The out-of-pocket tuition and fees were the net of the tuition and fees and the two grant amounts.

The Federal Tuition and Fee Deduction increased taxpayer. Correspondingly, they reduced the share of the price of attendance assigned first to families (Assigned Family Responsibilities) and assigned second to students (Assigned Student Responsibilities). In the following analysis, the Federal Tuition and Fee Deduction reduced Assigned Family Responsibilities and did not reduce Assigned Student Responsibilities.

A. Low Price Example

At the lower price($10,317), the deduction increased taxpayer investment for typical unmarried independent students with no dependents reporting adjusted gross incomes of $10,000 or more up to the program cutoff of $80,000, as shown on panel 4 of the next chart. Assigned Taxpayer Responsibilities, as usually defined, are shown as a solid line, with the sum of Assigned Taxpayer Responsibilities and the calculated deduction shown as a dashed line.

Individuals earning less than about $5,000 typically do not have a federal tax liability and do not qualify, 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 qualified tuition and fees used for this chart and, therefore, have no out-of-pocket expenses as defined by the Internal Revenue code. 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.

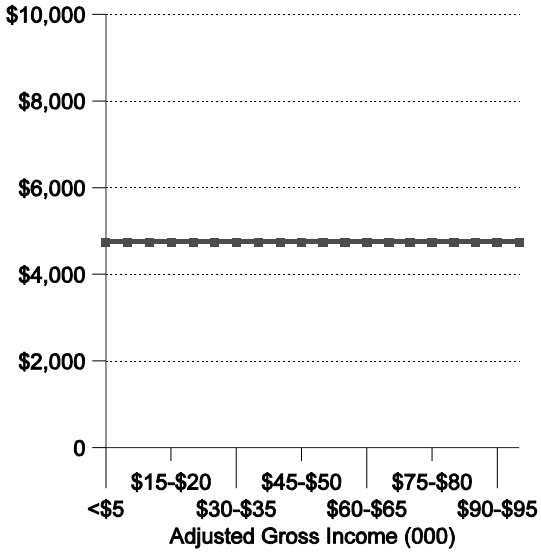
Increasing taxpayer investments through the deduction effectively reduced the amount assigned to families (students, in this case), as shown in panel 2. The lowering of assignments to families reduced the effort, as shown in panel 3, from 18 percent of adjusted gross income to 16 percent. This is equivalent to lowering the income tax rate by 2 percentage points.

Federal Tuition and Fee Deduction Increased Taxpayers' Investments in Typical Unmarried Independent Students with No Dependents with Recognized Price of Attendance = $10,317

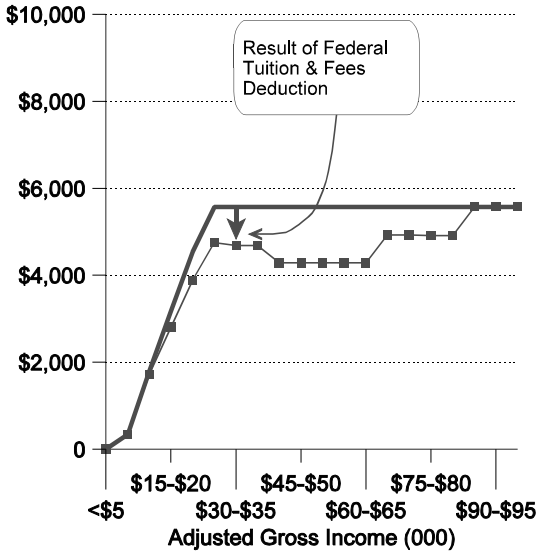
Current Policy

Current Policy combined with impact of Federal Tuition and Fee Deductions

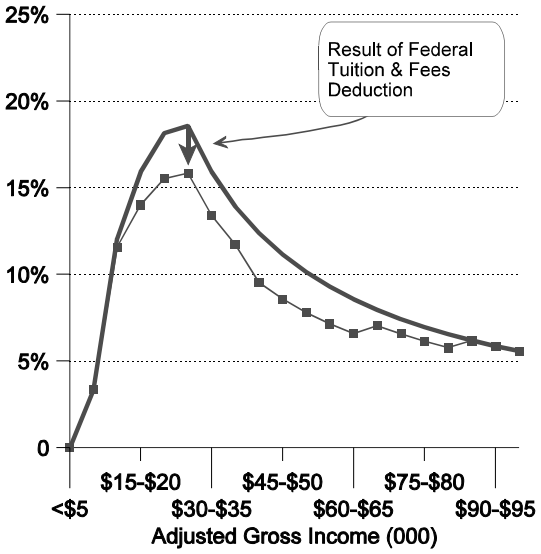
1
Student Responsibilities



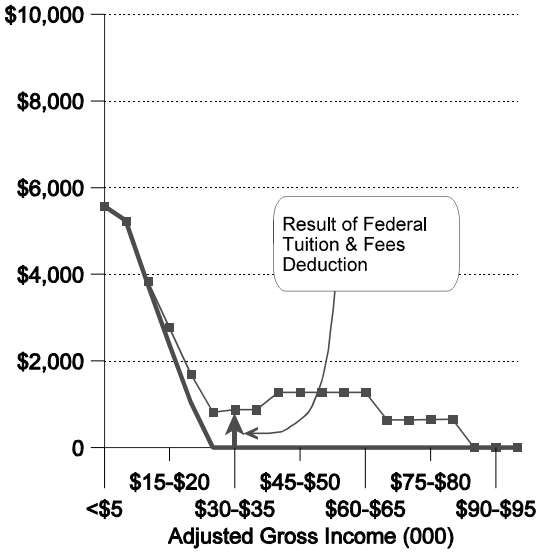
2
Family Responsibilities



3
Family Efforts



4
Taxpayer Responsibilities



B. Higher Price Example

At the higher price($15,462), the deduction increased taxpayer investment for typical unmarried independent students with no dependents reporting adjusted gross incomes of $5,000 or more up to the program cutoff of $80,000, as shown on panel 4 of the next chart. Assigned Taxpayer Responsibilities, as usually defined, are shown as a solid line, with the sum of Assigned Taxpayer Responsibilities and the calculated deduction shown as a dashed line.

Individuals earning less than about $5,000 typically do not have a federal tax liability and do not qualify, 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.

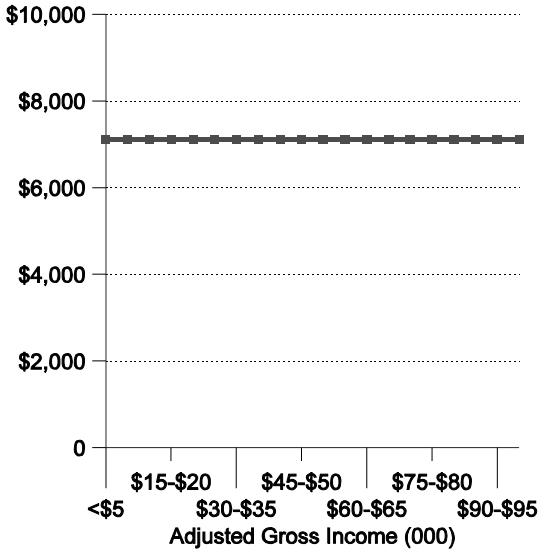
Increasing taxpayer investments through the deduction effectively reduced the amount assigned to families (the students, in this case), as shown in panel 2. The lowering of assignments to families reduced the effort, as shown in panel 3, from 21 percent of adjusted gross income to 18 percent. This is equivalent to lowering the income tax rate by 3 percentage points.

Federal Tuition and Fee Deduction Increased Taxpayers' Investments in Typical Unmarried Independent Students with No Dependents with Recognized Price of Attendance = $15,462

Current Policy

Current Policy combined with impact of Federal Tuition and Fee Deductions

1
Student Responsibilities



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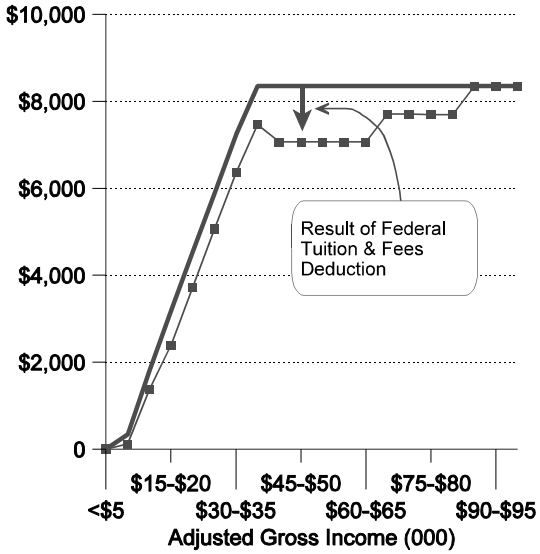
Family Responsibilities



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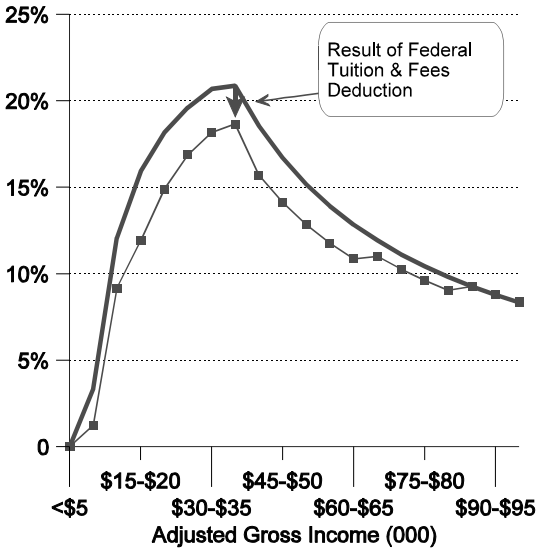
Family Efforts



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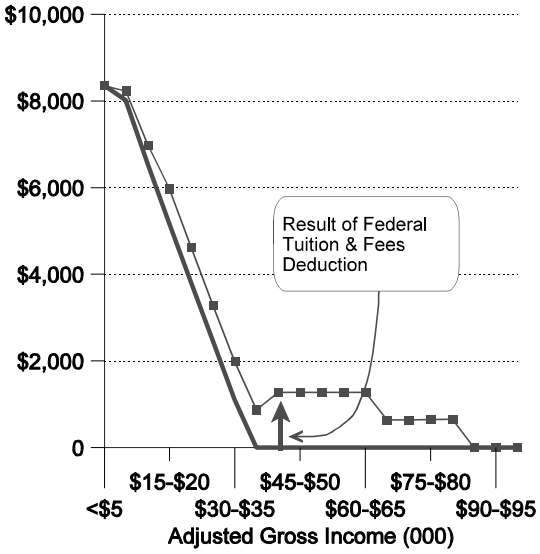
Taxpayer Responsibilities



Some Families Receive Federal Tax Benefits for Postsecondary Education Along with Federal Pell and Minnesota State Grants

Federal Tax Credits and the Federal Tuition and Fee Deduction are not currently counted in calculating Minnesota State Grants. 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 Federal tax benefits are not counted in calculating Minnesota State Grants, complicates program evaluation.

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 panel all three panels on the next page.

- Families in the $25-$40,000 income range qualified for both Federal Pell Grants and Federal Tax Credits, as shown on panels 1 and 2.

- Families in the $25 - $65,000 income range qualified for both Minnesota State Grants and Federal Tax Credits, as shown on panel 3.

For independent students with no dependents at the higher priced option:

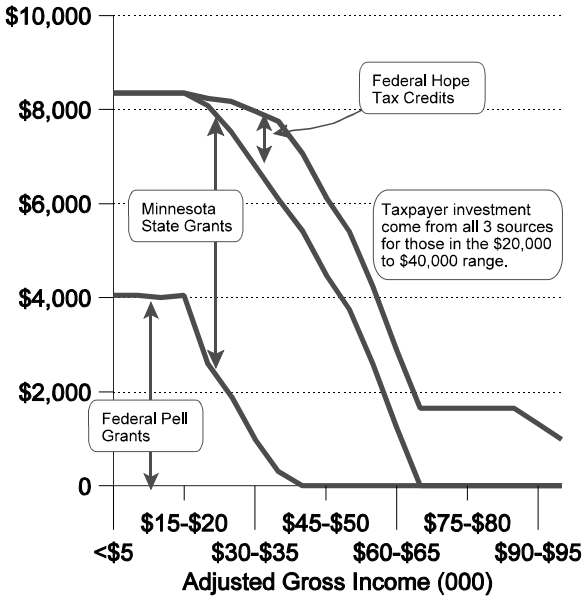
- Unmarried independent students with no dependents up to $20,000 qualified for both the Federal Pell Grant and the Minnesota State Grant, as shown on all three panels 2 pages below.

- Unmarried independent students with no dependents in the $5-$20,000 income range qualified for both Federal Pell Grants and Federal Tax Credits, as shown on panels 1 and 2 two pages below.

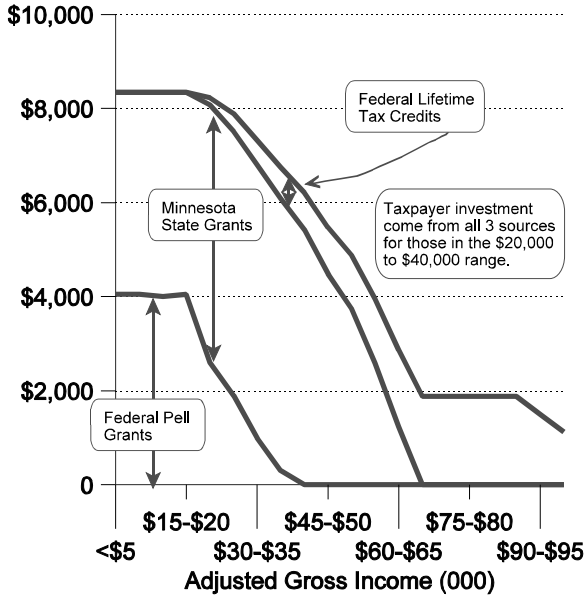
- Unmarried independent students with no dependents in the $5-$35,000 income range qualified for both Minnesota State Grants and Federal Tax Credits, as shown on panel 3 two pages below.

Distribution of Federal Tax Benefits, Pell Grants and Minnesota State Grants for Typical Dependent Students with Recognized Price of Attendance = $15,462

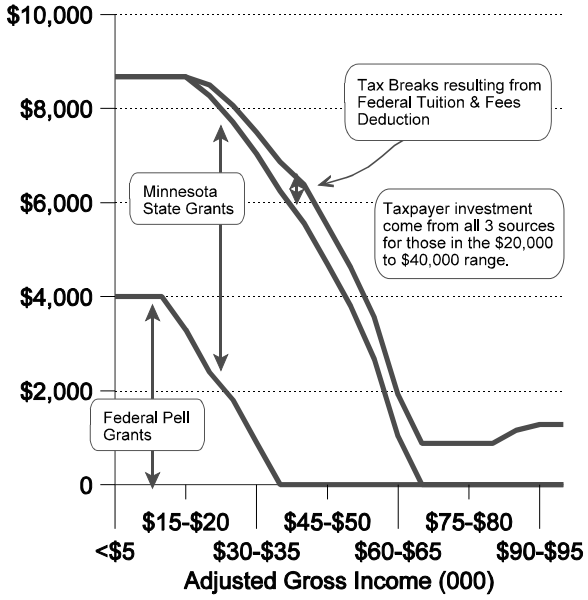
Federal Hope Tax Credits



Federal Lifetime Tax Credits

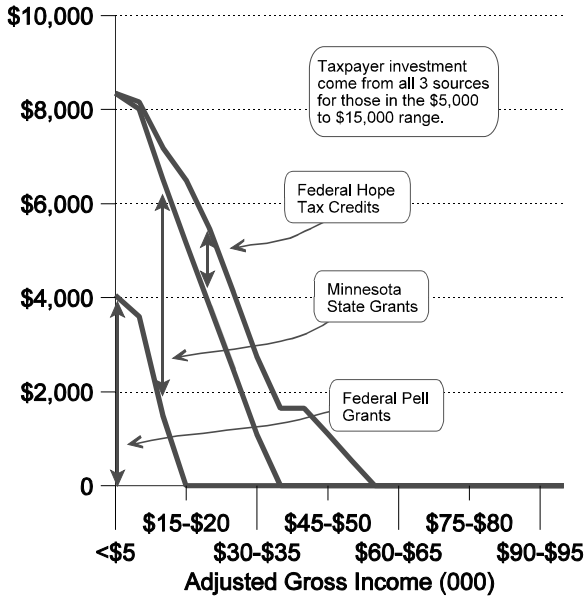


Tuition and Fee Deductions

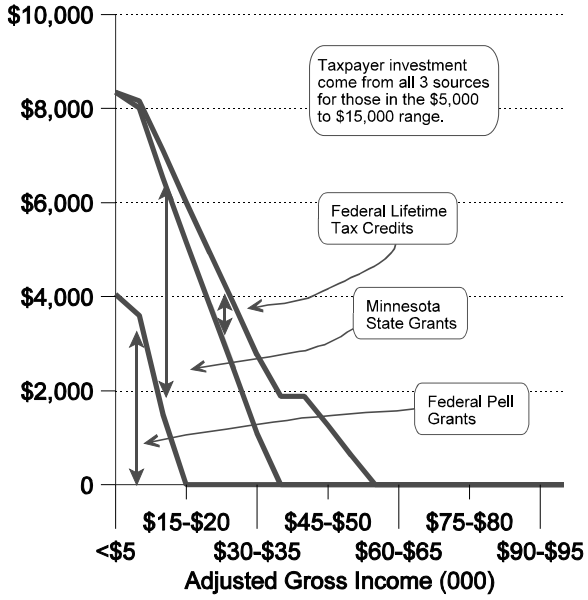


Distribution of Federal Tax Benefits, Pell Grants and Minnesota State Grants for Typical Unmarried Students with No Dependents with Recognized Price of Attendance = $15,462

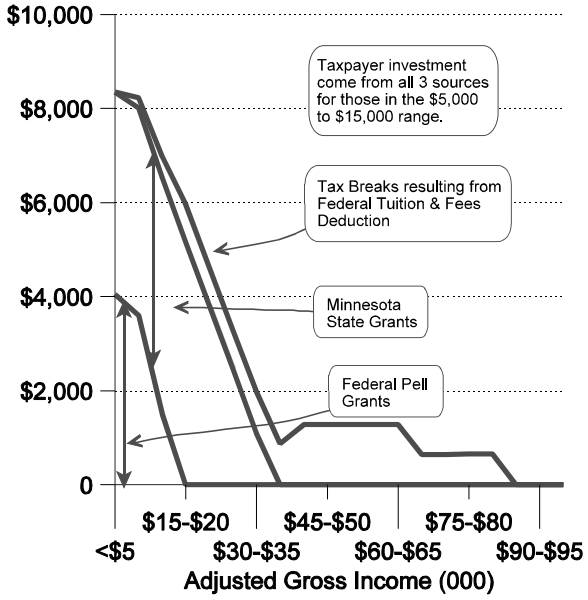
Federal Hope Tax Credits



Federal Lifetime Tax Credits



Tuition and Fee Deductions



References

College Board (2007) *Trends in Student Aid 2007* [Available at www.collegeboard.org/trends.]

Endnotes

1. College Board (2007) p. 7.

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.

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.

Graduate Students: State Grant Analysis

Staff Background Paper

Prepared by:
Staff of the Minnesota Office of Higher Education

February 15, 2008

Graduate Student State Grant Analysis

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 paper 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 paper is broader than this directive and discuses many forms of aid for these students.

The paper is structured the following way. The first section reports findings from four papers in 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% 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% 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 masters 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, DC.

- 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 and Aid

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).

Determining 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 Masters Degrees for Top 15 Occupations

Masters 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.

Third, one of the problems students encounter in Service/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.

[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

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 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]

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

[2] Under certain conditions loan amounts "forgiven" by the lender or paid by the employer are taxable as part of the student's income.

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 seventeen 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.

Expanding the State Grant program to Graduate and First Professional Students

Mechanically, the existing structure of the Minnesota State Grant Program could be applied to graduate and first professional students. A recognized 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 or set at different levels. 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

Considerations for Linking Graduate Student Financial Aid to State Workforce Needs. 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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