Merit Aid and College Access

Donald E. Heller Center for the Study of Higher Education The Pennsylvania State University

Symposium on the Consequences of Merit-Based Student Aid

Wisconsin Center for the Advancement of Postsecondary Education University of Wisconsin, Madison

March, 2006

400 Rackley Building University Park, PA 16802-3203 814-865-9756 Fax: 814-865-3638 dheller@psu.edu

© 2006, Donald E. Heller

Merit Aid and College Access

Donald E. Heller Center for the Study of Higher Education The Pennsylvania State University

Over the last decade, there has been a fundamental shift in the awarding of scholarships to undergraduate students in the United States. More and more, these grants are being made not based on the financial need of the student and her family – which has been the predominant criterion since the passage of the Higher Education Act of 1965 over 40 years ago – but instead, are being awarded using measures of academic merit without consideration of financial need. Of the three major providers of these grants, higher education institutions, state governments, and the federal government, this shift toward the use of merit has been most pronounced in the first two.

This paper will offer an overview of these trends, providing data on the growth of merit-based grants in recent years. It will also provide an analysis of who receives merit grants (in comparison to need-based grants), along with the likely impact this has on college access in the nation. It will close with some concluding thoughts regarding the long-term impact of these changes.

The Growth of Merit-Based Grants

Institutional Grant Awards

Data from the National Postsecondary Student Aid Study (NPSAS), conducted by the U.S. Department of Education, were used to analyze changes in institutional grant awards (National Center for Education Statistics, 2005a, 2005b). This survey is a nationally-representative sample of students attending the approximately 6,000 Title-IV eligible colleges and universities in the country in the year the study was conducted. Information was collected from students and parents through telephone or web-based interviews, as well as from institutional records and federal financial aid databases. Data from the 1995-1996 and 2003-2004 NPSAS surveys were used in the analysis (hereinafter referred to as 1995 and 2003).

Table 1 shows all institutional grant awards to undergraduate students, by college sector, in the two years.¹ Also shown are the changes in each type of award between the two years. The first panel in table 1 shows that in 1995, colleges and universities across the country awarded a total of approximately \$6.9 billion to undergraduate students from their own resources. By 2003, this amount had more than doubled to \$14.1 billion. In every sector, institutional grant spending grew faster than tuition increases over this period, which averaged 44 percent at community

Sector	1995-1996	2003-2004	Change
1. Total grants			
Community colleges	\$299	\$672	124%
Public 4-year	1,492	3,467	132
Private 4-year	4,815	9,014	87
Total – all sectors*	6,900	14,130	105
2. Need-based grants			
Community colleges	\$212	\$323	53%
Public 4-year	824	1,321	60
Private 4-year	3,238	4,463	38
Total – all sectors*	4,464	6,540	47
3. Merit (non-need) grants			
Community colleges	\$88	\$349	297%
Public 4-year	668	2,145	221
Private 4-year	1,577	4,552	189
Total – all sectors*	2,436	7,590	212
4. Merit grants as % of total			
Community colleges	29%	52%	
Public 4-year	45	62	
Private 4-year	33	50	
Total – all sectors*	35	54	

Table 1: Institutional grant awards by college sector, 1995-1996 and 2003-2004 (\$ millions)

* Includes other sectors not separately listed, including proprietary (for-profit) colleges and less than 2-year institutions. In 1995, these other sectors totaled less than 7 percent of the total dollars awarded.
 Source: Author's calculations from National Center for Education Statistics (2005a, 2005b)

¹ The grant awards described here are only those provided by the institutions themselves, and exclude federal and state grants as well as those from outside, non-governmental sources. Institutions generally provide these grants from one of two sources: 1) donated scholarship funds, or 2) tuition revenue designated for scholarship purposes.

colleges, 65 percent at public 4-year institutions, and 55 percent at private 4-year institutions (College Board, 2005).

Panels 2 and 3 show the total amounts awarded each year and in each sector in need-based grants and in merit grants.² Spending on need-based grants increased 47 percent in total, from \$4.5 billion to \$6.5 billion. The spending increase was very similar across all three sectors, and only in community colleges did the spending on need-based grants increase at a rate in excess of the tuition increase noted above.

Panel 3 demonstrates the large increase in spending on merit grants during this eight-year period. Overall, merit grant awards more than tripled, from \$2.4 billion to \$7.6 billion, with the largest percentage increases in the public sectors. Panel 4 shows that while in 1995 the majority of grant dollars were awarded in every sector using financial need criterion, by 2003 the majority of the dollars had shifted to merit-based awards. Overall, 54 percent of the \$14.1 billion provided in 2003 were awarded without the use of means testing.

State Grants

For over three decades, the National Association of State Student Grant and Aid Programs has tracked spending on state-funded grant programs (National Association of State Student Grant & Aid Programs, 2005). Beginning in 1981, the organization began to distinguish between spending on need-based grants and merit grants.³ Figure 1 shows total state spending nationally on these two types of grants since 1981. Need-based grants have grown from \$0.9 billion in 1981 to \$4.5 billion in 2003 (the most recent year for which data are available), an annual growth rate of 7.7 percent. Spending on merit grants increased at approximately twice that rate, 14.1 percent annually, from less than \$100,000 in 1981 to \$1.6 billion in 2003.

During the 1980s and up through the early 1990s, the percentage of all grants awarded without consideration of financial need (shown by the line in figure 1) stayed within one point of 10 percent. Beginning in 1994, this proportion rose steadily, to the point where today more than one in four state grant dollars are awarded without means testing. Since 1993, spending on need-based grants grew 7.5 percent annually, while spending on merit grants grew annually at almost triple that rate, or 20.7 percent. Between 1993 and 2003, spending on both need and merit grants increased at rates in excess of average tuition increases in all three college sectors.

² In the NPSAS study, grants awarded based on financial need may also include a merit component. Grants designated as merit-based, however, are awarded without any consideration of the financial need of the student or her family.

³ "Merit" is used here for consistency of language. The organization refers to these as "non-need" grants, meaning that no needs-testing is conducted on the recipient or her family. These could include grants awarded based on traditional academic criteria, such as grades or test scores, as well as grants awarded to specific categories of individuals, such as the children of policemen or firemen killed in the line of duty. The majority of these state programs, however, based the awards on some type of academic criteria.

Page 4

The growth in the popularity of state merit grants is often attributed to the implementation of the HOPE Scholarship program in Georgia.⁴ Since the development of this program in 1993, fourteen states have created similar, broad-based scholarship programs (Heller & Marin, 2002, 2004). Unlike need-based grants, which are universally funded from state general revenues and are subject to the dictates of the politically-driven appropriation process in each state, states use a variety of funding mechanisms – including general funds, lottery revenues, and funds from the tobacco litigation settlement – for the merit scholarship programs and most function as entitlements, guaranteeing their benefits to any student who qualifies. These programs will be described in more detail in the next section.



Source: Author's calculations from National Association of State Student Grant & Aid Programs (2005)



The Distribution of Merit Grants

The National Postsecondary Student Aid Study has detailed information on the characteristics of students receiving grants of various sources. This information can be examined to assess the distribution of merit grants (in comparison to need-based grants) to students from different income groups. The focus first is on the income of students receiving grants for two reasons: 1)

⁴ See Heller (2002) and Mumper (1999) for more on the development of the HOPE Scholarship program and the rise in merit scholarship programs in the states.

because of the longstanding gaps in college access, persistence and degree attainment between students from higher income families and their lower income peers; and 2) the large body of research that has demonstrated the impact of financial aid on the college participation of lower income students.⁵

Table 2 shows the distribution of grants of various types to dependent students in four income quartiles in 2003.⁶ Dependent students are often called "traditional-age" college students, and with few exceptions are between the ages of 18 and 23. As dependents, the income quartiles shown represent the family income of the students' parents or guardians. The income quartiles were constructed by examining all dependent students enrolled in college that year, and then ranking them by family income and dividing them evenly into four groups.

Table 2: Distribution of grants to dependent undergraduates by income quartile, 2003-2004

	Federal Grants	State Need Grants	State Merit Grants	Institutional Need Grants	Institutional Merit Grants
Total \$ (millions)	\$4,033	\$2,310	\$741	\$4,689	\$5,470
% distribution by family income quartile in 2002					
1 st : <\$33,346	81%	53%	23%	27%	20%
2 nd : \$33,346 - \$60,175	17	31	21	28	21
3 rd : \$60,176 - \$92,433	2	12	29	25	28
4 th : >\$92,433	1	4	28	21	30

Note: Quartile totals may not sum to 100% due to rounding. Dependent students who attended a single institution full-time.

Source: Author's calculations from National Center for Education Statistics (2005b)

The federal Pell and Supplemental Educational Opportunity Grant programs are means-tested, and 98 percent of the funds awarded to dependent students in these programs went to those whose family incomes were below the median of all students attending college that year. The students attending college in 2003 were from families with incomes, on average, that were slightly higher than all families in the country. Data from the United States Census Bureau (2006) show that in 2002, the median income of all families in the country with at least one child between the ages of 6 and 17 was \$54,249, or approximately 10 percent below the median family income of dependent students enrolled in college (the income data in NPSAS are from the

⁵ For information on the first reason, two reports of the Advisory Committee on Student Financial Assistance (2001, 2002) provide good background. For the second, see reviews of the literature conducted over the last three decades by Heller (1997), Jackson and Weathersby (1975), and Leslie and Brinkman (1988).

⁶ Shown are grants to students who attended a single institution full-time for the entire year. These are the students most likely to be recipients of institutional and state grants, and received 83 and 80 percent, respectively, of the grant dollars awarded to dependent students by institutions and the states that year.

previous calendar year). Students in the bottom income quartile, those with family incomes below \$33,346 in 2002, were the largest beneficiaries of federal grant awards.

State need-based grants were also highly-targeted at students from below the median, with 84 percent going to students in the first and second income quartiles, and over half of the total awarded to students in the bottom quartile. The distribution of state merit grants was quite different, however. Less than half of these grant dollars went to students from below the median. Students in the top two income groups received a disproportionate share of these dollars. The reasons behind this distribution will be discussed later.

Institutional grants – both need and merit together – at over \$10 billion represent a much larger source of aid to students than federal and state grants combined (\$7 billion). Thus, understanding who receives institutional grants is important. An interesting finding with respect to institutional need-based grants is how many of them are going to students from higher-income families. Even though these grants are awarded using means-testing, over 20 percent of the dollars awarded (almost \$1 billion) went to students from families in the top income quartile and almost half went to students from above the median income, a very different distribution than either federal or state need-based grants. Institutions must use the federal needs analysis methodology – based on data students and their parents submit on the Free Application for Federal Student Aid, or FAFSA – for awarding federal grants. Most states use either the federal methodology or some variation to award state need grants (National Association of State Student Grant & Aid Programs, 2003). But for institutional grant awards, institutions are free to use whatever methodology they choose. The result is that more higher income students receive institutional need-based grants - even though they are means-tested - than receive federal or state need grants. It is not just students at the bottom of the top quartile (income of \$92,433 per year) who receive these need-based grants; over \$360 million of the roughly \$1 billion that went to this group were awarded to students from families with incomes above \$125,000 per year.⁷

As with state merit grants, the distribution of institutional merit grants too is skewed toward higher income students. Almost 60 percent of these grants went to students from above the median income level, and \$727 million, or 13 percent of the total, went to students from families making above \$125,000.⁸ Institutions awarded over \$1 billion in grants – both need and merit – to students from families with incomes above \$125,000 in 2003. Some may argue that even families with incomes in this range may need some help in paying for college if their children are attending an expensive private institution, some of which had costs of attendance of over \$40,000 in 2003-2004.⁹ But over a third of the students from families with incomes above \$125,000 attended public institutions, and 43 percent of them were enrolled in institutions with a

⁷ This proportion is not shown in the table but was calculated by the author from the NPAS data.

⁸ It should be noted that the distribution of grant dollars are not simply a manifestation of where students attend college, i.e., if higher income students attend more expensive colleges one would expect them to receive a higher proportion of the grant dollars (on the assumption that more expensive colleges award more institutional aid). Even when you examine students within the public 4-year and private 4-year sectors separately, higher income students still received a higher share of merit grant aid.

⁹ An interesting discussion could be held regarding whether that financial assistance should come not in the form of grants, but rather through loans, but that is a topic for a different paper.

cost of attendance of less than \$26,057, which was the average for private 4-year institutions that year (College Board, 2004).

Merit Grants and College Access

It is difficult to draw causal inferences regarding the impact of merit aid on college access solely from the cross-sectional data presented in this paper. However, these data, along with other research on the impact of merit scholarships, can help shed light on whether this form of aid is likely to help close the gaps in college participation noted earlier.

Two studies that I co-edited for The Civil Rights Project at Harvard University in recent years examined a number of state merit scholarship programs (Heller & Marin, 2002, 2004). States implementing merit scholarship programs have identified three primary policy objectives for the programs (Heller, 2002b):

- 1. Promote college access and attainment;
- 2. to keep the "best and brightest" students attending college in their home states; and
- 3. to reward and/or encourage students who work hard or achieve academically.

Only the first goal is consistent with most publicly-funded financial aid programs, whose goals historically have been to encourage the college participation of students with financial need.

The overall conclusion from these reports was that state merit aid programs have little impact on closing the college participation gaps (both in access as well as degree attainment) between higher income and lower income students, and between racial majority and racial minority students. The first report concluded that

The evidence presented in this report is significant in that it signals various detrimental outcomes of what on the surface, appear to be innocuous programs. ...Overall, the studies in this report make it clear that the students least likely to be awarded a merit scholarship come from populations that have traditionally been underrepresented in higher education. This hinders the potential to increase college access among minority and low-income students, especially if these scholarship programs continue to overshadow need-based programs (Marin, 2002).

Some of the specific findings on the state merit aid programs include:

• In Georgia, over 90 percent of the expenditures on the HOPE scholarship program went to students who would have attended college even without the assistance, and the program helped to increase the gap in college participation between white and African American students in the state. In addition, HOPE recipients were more likely to engage in detrimental behaviors once enrolled in college, including increased with drawals from classes and taking lower course loads (Cornwell & Must ard, 2002; Cornwell & Must ard, 2004). $^{10}\,$

- In Florida, Michigan, and Massachusetts, state merit grants were awarded disproportionately to racial majority students and students in wealthier communities (Heller, 2004a; Heller & Rasmussen, 2002).
- New Mexico's merit aid program had no impact on overall access to higher education, though it did encourage some students to shift from community colleges to 4-year institutions. Half of the scholarship recipients were non-minority (in a state that is more than half minority) and 70 percent were from higher-income families (Binder & Ganderton, 2004; Binder, Ganderton, & Hutchens, 2002).

The reason for these findings is the relationship between the measures of academic merit used for awarding the scholarships by these programs – which include such measures as high school grades, standardized test scores (such as the SAT or ACT), and state curricular framework test scores – and socioeconomic status. The gap in many of these measures between rich and poor students, as well as between racial majority and minority students has been well documented.¹¹

While there is some evidence that state merit scholarship programs can encourage the "best and brightest" students to stay in state to attend college (Cornwell, Mustard, & Sridhar, forthcoming), there is little evidence that these programs provide any incentive to students to stay in the state after graduating from college and entering the labor force. One study found that states that implemented merit scholarship programs were actually *less* successful at keeping graduating seniors in the labor force in the state (Heller & Rogers, 2004b).

The third policy rationale for merit aid programs, that of rewarding students who work hard or achieve academically, has not been well tested empirically. While the programs may be seen as providing a cash incentive for reaching particular achievement levels, there is little or no evidence that the programs encourage students to work harder in order to qualify for the scholarships (Heller, 2006; Heller & Rogers, 2004a).

A key issue in understanding the impact of state merit scholarship programs is what relationship funding for these programs has with funding for need-based grants. It is naïve to think that if merit scholarship programs had never been developed that these states would instead invest the same resources in need-based aid. However, given the little impact the merit aid programs have on college access, if even only a portion of their funding were reallocated to need grants, these states could more efficiently and effectively use scarce public resources to increase the college participation of underserved populations.¹²

There has been little research on whether merit scholarships offered by institutions displace need-based grants. One recent study, however, found a relationship between colleges and universities funding National Merit Scholars from their own institutional aid programs, and a

¹⁰ These detrimental behaviors were due to the need for HOPE recipients to maintain a grade point average of 3.0 in college in order to retain their scholarships.

¹¹ See, for example, Jencks and Phillips (1998), Orfield and Kornhaber (2001), and Zwick (2002).

¹² Investigating ways to measure this "displacement" effect of merit aid is a project on which I am currently working.

reduction in the number of Pell Grant recipients enrolled at the institution (Ehrenberg, Zhang, & Levin, 2006). While this does not draw a direct causal link between increases in institutional merit aid spending and need-based grants, it does begin to provide some evidence that increased spending on merit aid may be related to a reduction in enrollment of lower-income students.

Another study, however, found that the increasing use of tuition discounting by private colleges and universities may have led to increases in the number of low-income undergraduates they enrolled (Redd, 2000). This study did not distinguish, however, between merit and need-based grants awarded by institutions, and thus, makes it difficult to assess the differential impact of each on the enrollment of students from lower-income families. Another study of tuition discounting came to the opposite conclusion, though (Davis, 2003). It found that increased tuition discounting (through the awarding of institutional grants) actually worked against the interests of lower-income students.

Clearly, more research is needed on the causal relationship between institutional merit grants and the college participation of students historically underrepresented in higher education. While the evidence from analyses of state merit aid programs is relatively strong – and points to the fact that these programs are an ineffective and inefficient mechanism for promoting college access in states – more work is needed to understand whether institutional merit aid programs have the same limitations.

Conclusions

This study has demonstrated that merit aid is more likely to be awarded to students from higher income families in comparison to need-based grants. Grants awarded based on the financial need of the student and her family are much more likely to benefit lower-income students. Similar patterns are found with respect to race; minority students are more likely to receive need-based grants and white students receive a disproportionate share of the merit aid money. If these trends continue, we are likely to see students from traditionally underrepresented populations receiving proportionally less financial aid. This has important implications for their ability to enroll in college, and persist through to attain a degree once there.

At the same time these trends have been observed, there are other troubling policy changes that will work against the interests of underserved populations. President Bush's recently announced budget for FY2007 would keep the maximum Pell Grant at \$4,050, meaning the maximum would have risen only 1 percent in five years – a period when tuition prices at both public and private 4-year institutions rose by more than one-third (Burd, 2006; College Board, 2005). In addition, for the first time the federal government would introduce a merit component to the Pell Grant program by offering add-on grants of up to \$1,300 for students who complete a proscribed series of courses in secondary school and maintain a grade point average of at least 3.0 in college (Burd, 2006).

While the growth in merit aid in institutions appears largely to be continuing unabated, there are counter examples where some are making important commitments to lower-income students. A small number of universities in recent years, including Harvard, Princeton, the University of

North Carolina, the University of Virginia, and the University of Maryland, have implemented programs that seek to ease the financial burden on lower-income students. Many do this by no longer requiring these students to borrow to finance their postsecondary educations; rather, the institutions commit to meet the full need of the students with institutional grants after they have exhausted all other grant sources (and including work study and the students' expected family contribution). While these are noble efforts, they are likely to have little impact overall on college access for poorer students. These institutions enroll relatively small numbers of these lower income students, and while the financial aid policy changes will make it easier for these students to attend, they still must meet the admissions criteria required for entrance (Carnevale & Rose, 2004; Heller, 2004b). Only if these new policies are adopted by larger numbers of public and private institutions are we likely to see them having much impact on the enrollment of lower-income students.

References

- Advisory Committee on Student Financial Assistance. (2001). Access denied: Restoring the nation's commitment to equal educational opportunity. Washington, DC: U.S. Department of Education.
- Advisory Committee on Student Financial Assistance. (2002). *Empty promises: The myth of college access in America*. Washington, DC: U.S. Department of Education.
- Binder, M., & Ganderton, P. T. (2004). The New Mexico Lottery Scholarship: Does it help minority and low-income students? In D. E. Heller & P. Marin (Eds.), *State merit* scholarship programs and racial inequality (pp. 101-122). Cambridge, MA: The Civil Rights Project at Harvard University.
- Binder, M., Ganderton, P. T., & Hutchens, K. (2002). Incentive effects of New Mexico's merit-based state scholarship program: Who responds and how? In D. E. Heller & P. Marin (Eds.), *Who should we help? The negative social consequences of merit scholarships* (pp. 41-56). Cambridge, MA: The Civil Rights Project at Harvard University.
- Burd, S. (2006, February 17). Not much help for needy students in proposed budget for 2007. *The Chronicle of Higher Education*, p. A23.
- Carnevale, A. P., & Rose, S. J. (2004). Socioeconomic status, race/ethnicity, and selective college admissions. In R. D. Kahlenberg (Ed.), *America's untapped resource: Lowincome students in higher education* (pp. 101-156). Washington, DC: Century Foundation Press.
- College Board. (2004). Trends in college pricing, 2004. Washington, DC: Author.
- College Board. (2005). Trends in college pricing, 2005. Washington, DC: Author.
- Cornwell, C., & Mustard, D. (2002). Race and the effects of Georgia's HOPE scholarship. In D. E. Heller & P. Marin (Eds.), Who should we help? The negative social consequences of merit scholarships (pp. 57-72). Cambridge, MA: The Civil Rights Project at Harvard University.
- Cornwell, C., & Mustard, D. B. (2004). Georgia's HOPE scholarship and minority and low-income students: Program effects and proposed reforms. In D. E. Heller & P. Marin (Eds.), *State merit scholarship programs and racial inequality* (pp. 77-100). Cambridge, MA: The Civil Rights Project at Harvard University.
- Cornwell, C., Mustard, D. B., & Sridhar, D. J. (forthcoming). The enrollment effects of meritbased financial aid: Evidence from Georgia's HOPE scholarship. *Journal of Labor Economics*.
- Davis, J. S. (2003). *Unintended consequences of tuition discounting*. Indianapolis, IN: New Agenda Series, Lumina Foundation for Education.
- Ehrenberg, R. G., Zhang, L., & Levin, J. M. (2006). Crafting a class: The trade-off between merit scholarships and enrolling lower-income students. *The Review of Higher Education*, 29(2), 195-211.
- Heller, D. E. (1997). Student price response in higher education: An update to Leslie and Brinkman. *Journal of Higher Education*, 68(6), 624-659.
- Heller, D. E. (2002a). The policy shift in state financial aid programs. In J. C. Smart (Ed.), *Higher education: Handbook of theory and research* (Vol. 17, pp. 221-261). New York: Agathon Press.

- Heller, D. E. (2002b). State merit scholarship programs: An introduction. In D. E. Heller & P. Marin (Eds.), Who should we help? The negative social consequences of merit scholarships (pp. 15-23). Cambridge, MA: The Civil Rights Project at Harvard University.
- Heller, D. E. (2004a). The devil is in the details: An analysis of eligibility criteria for merit scholarships in Massachusetts. In D. E. Heller & P. Marin (Eds.), *State merit scholarship* programs and racial inequality. Cambridge, MA: The Civil Rights Project at Harvard University.
- Heller, D. E. (2004b). Pell Grant recipients in selective colleges and universities. In R. D. Kahlenberg (Ed.), America's untapped resource: Low-income students in higher education (pp. 157-166). Washington, DC: Century Foundation Press.
- Heller, D. E. (2006). *MCAS scores and the Adams Scholarships: A policy failure*. Cambridge, MA: The Civil Rights Project at Harvard University.
- Heller, D. E., & Marin, P. (Eds.). (2002). *Who should we help? The negative social consequences of merit scholarships*. Cambridge, MA: The Civil Rights Project at Harvard University.
- Heller, D. E., & Marin, P. (Eds.). (2004). *State merit scholarship programs and racial inequality*. Cambridge, MA: The Civil Rights Project at Harvard University.
- Heller, D. E., & Rasmussen, C. J. (2002). Merit scholarships and college access: Evidence from Florida and Michigan. In D. E. Heller & P. Marin (Eds.), Who should we help? The negative social consequences of merit scholarships (pp. 25-40). Cambridge, MA: The Civil Rights Project at Harvard University.
- Heller, D. E., & Rogers, K. R. (2004a). *Merit scholarships and incentives for academic performance*. Houston, TX: University of Houston Law Center.
- Heller, D. E., & Rogers, K. R. (2004b, June). *Stanching the brain drain: Merit scholarships and student migration patterns*. Paper presented at the 21st Annual NASSGAP/NCHELP Student Financial Aid Research Network Conference, San Francisco.
- Jackson, G. A., & Weathersby, G. B. (1975). Individual demand for higher education. *Journal of Higher Education*, *46*(6), 623-652.
- Jencks, C., & Phillips, M. (1998). *The Black-White test score gap*. Washington, DC: Brookings Institution.
- Leslie, L. L., & Brinkman, P. T. (1988). *The economic value of higher education*. New York: American Council on Education/Macmillan Publishing.
- Marin, P. (2002). Merit scholarships and the outlook for equal opportunity in higher education. In D. E. Heller & P. Marin (Eds.), *Who should we help? The negative social consequences of merit scholarships* (pp. 109-114). Cambridge, MA: The Civil Rights Project at Harvard University.
- Mumper, M. (1999, November). *HOPE and its critics: Sorting out the competing claims about Georgia's HOPE scholarship.* Paper presented at the annual meeting of the Association for the Study of Higher Education, San Antonio, TX.
- National Association of State Student Grant & Aid Programs. (2003). NASSGAP 33rd annual survey report on state-sponsored student financial aid 2001-2002 academic year. Albany: New York State Higher Education Services Corporation.
- National Association of State Student Grant & Aid Programs. (2005). NASSGAP 35th annual survey report on state-sponsored student financial aid 2003-2004 academic year. Springfield: Illinois Student Assistance Commission.

- National Center for Education Statistics. (2005a). *National Postsecondary Student Aid Study* 1995-1996 data analysis system. Retrieved June 7, from http://nces.ed.gov/dasol/
- National Center for Education Statistics. (2005b). *National Postsecondary Student Aid Study* 2003-2004 data analysis system. Retrieved June 7, from http://nces.ed.gov/dasol/
- Orfield, G., & Kornhaber, M. L. (Eds.). (2001). *Raising standards or raising barriers? Inequality and high-stakes testing in public education*. New York: The Century Foundation Press.
- Redd, K. E. (2000). *Discounting toward disaster: Tuition discounting, college finances, and enrollments of low-income undergraduates.* Indianapolis, IN: USA Group Foundation.
- U.S. Census Bureau. (2006). Presence of related children under 18 years old--All families by total money income in 2002, type of family, work experience in 2002, race and Hispanic origin of reference person [On-line data file]. Retrieved February 15, from http://pubdb3.census.gov/macro/032003/faminc/new03_001.htm
- Zwick, R. (2002). *Fair game? The use of standardized admissions test in higher education*. New York: RoutledgeFalmer.