SUMMARY

The recent economic downturn has combined with several notable events in higher education to focus attention on states’ student financial aid programs and policies. Policy-makers in many states are working to improve existing grant programs, and some are considering completely new programs. Whether improving or creating a state grant program, policy-makers must address a fundamental and comprehensive question: “Who should receive how much aid to attend which kinds of institutions for what purposes?” This paper provides important information on the probable effects of various program policy answers to the question — information that will help policy-makers achieve their financial aid goals.

DESIGNING A STATE STUDENT GRANT PROGRAM: A FRAMEWORK FOR POLICY-MAKERS

Recent events have focused increased attention on state student financial aid programs and policies.

• In November 2000, Measuring Up 2000: The State-by-State Report Card for Higher Education (National Center for Public Policy in Higher Education, 2000), assessed state-by-state strategies for making college affordable, relationships between college prices and family ability to pay them, and the need for students to borrow to attend. It gave each state a grade on “affordability,” determining that only five states earned “A’s” while sixteen got “D’s” or “F’s.” These grades have prompted many discussions on how states might improve their standings by changing financial aid policies.

• In February 2001, the federal Advisory Committee on Student Financial Assistance released a report to Congress and the nation, Access Denied: Restoring the Nation’s Commitment to Equal Educational Opportunity (ACSFA, 2001), describing the growing financial barriers lower-income students must overcome to afford postsecondary education. The report said states, institutions and the federal government have shifted policy priorities away from access and so created huge amounts of “unmet need” for students from America’s lower-income families. The committee recommended that the federal government renew its “financial aid partnership” with states and institutions to help assure financial access to postsecondary
education. Many policy-makers and analysts are considering these recommendations.

- In the Spring 2001 issue of *National CrossTalk*, Donald Heller joined a chorus of voices criticizing state legislatures recently for implementing student aid policies that are seen as harmful to students who are trying to achieve access to college. He wrote that merit-based state grant programs in Michigan as well as other states are "likely to channel money away from students who need the financial assistance to enable them to attend college, and award it to students who are likely to attend college without the financial help (Heller, 2001, Page 8)."

- An article in the April 27, 2001, issue of *The Chronicle of Higher Education* reported that aggregate state spending on student aid rose by 12.6 percent in 1999-2000, nearly matching the largest percentage increase since 1978 (Schmidt, 2001). Aggregate spending on need-based grants rose by 8.5 percent while spending on non-need-based or merit aid rose by about 20 percent. Nevertheless, about 78 percent of all state grant aid is offered through need-based programs.

Downturns in many states' economies threaten to diminish state revenues available to support public colleges; consequently, public college tuitions are expected to rise. These increases will absorb state grant program dollars and create a demand for more. The demand for more state grant assistance is almost certain to increase attention to state grant program policies and energize debates on which policies are most appropriate to which situations.

*The Chronicle* article cited above noted an observation by Cheryl Maplethorpe, current president of the National Association of State Student Grant and Aid Programs (NASSGAP), that each state's legislature seems to have "a different culture" that affects state grant program policy decisions. Although states do have different cultures, there are additional factors that affect student financial aid policy-making decisions. Many legislators and executive leaders who are responsible for funding state grant programs and setting policy guidelines lack a framework for discussing alternative policies and their likely effects. They have questions about whether current programs are achieving their most important goals and aiding the students they most want to help. They wonder how to modify current programs or create new ones that will work better. But redesigning a current program or designing a new one is difficult, primarily because policy-makers frequently fail to understand the sometimes conflicting relationships between program goals and effects. The purpose of this paper is to describe these relationships and provide a framework for designing state grant programs.

One comprehensive and basic question should guide the design of any state grant program: "Who should receive how much aid to attend which kinds of postsecondary institutions for what purposes?" Policy-makers' answers to all four parts of this question are crucial to a program's design, and answers to each part must necessarily affect answers to other parts. Clearly, policy-maker's answers will depend in large part on their particular values and political environ-
ments, but it is equally clear that all public policy-makers value program effectiveness and efficiency. They all want their programs to succeed (i.e., produce desired effects while avoiding undesirable ones), using as few resources as possible.

A discussion of possible answers to the basic question could focus first on who the program should aid. After all, a clear picture of a program's target audience is crucial to its chances of being implemented, being funded, and surviving. But there is an even more fundamental issue to address: Why have a public grant program at all? We will begin the discussion, then, by examining the fundamental purposes of grant programs.

**WHY AWARD STATE GRANTS?**

There are many purposes for awarding state grants. Most state grant programs attempt to achieve the three traditional goals of student financial aid programs: (1) to enhance student access to postsecondary education; (2) to enhance student choice among institutions of widely different prices; and (3) to enhance student retention in their programs until students achieve their education goals.

Some state grant programs try to help “equalize” tuition charges between public colleges and higher-priced private colleges. These programs give state grants to students to attend private colleges, thereby reducing the gap between public and private college net prices after grants. This approach helps grant recipients choose higher-priced private colleges while also helping support the colleges' enrollment efforts. Sometimes state grant programs are set up to encourage students to prepare for occupations where critical labor shortages are perceived, such as nursing or math/science teachers. Some programs are intended to provide incentives to students to attend in-state colleges so that when they graduate they will be more likely to become employed in their home states. Other programs reward recipients for prior achievement (as in academic scholarship programs or programs for veterans). Still others provide students with grants in recognition of their parents' service (as in the case of awards to dependents of veterans, firefighters or police officers). Several states that have recently established “merit-based” grant programs intend to encourage students to better prepare for college, then enroll, and then work in their home states rather than leaving for education and employment elsewhere (Creech and Davis, 1999).

A program's primary purpose greatly influences who receives how much aid to attend which institutions. For example, programs that emphasize the access goal will necessarily distribute grant funds among students differently than will programs emphasizing other goals. Programs that emphasize access are likely to have different effects on student enrollment behavior than will programs attempting to achieve other goals.

Although they may have different goals, all state grant programs appear to share three common characteristics:

- First, they intend to enable award recipients to do something they would not or could not have done
without their grants, e.g., enroll at some postsecondary institution or a specific college, study a particular subject, pursue a certain occupation, or try harder to get good grades to earn scholarships.

- Second, state grant programs intend to be effective — to achieve their program goals — and to be efficient — to pursue those goals with the minimum expenditure of available resources.

- Third, they are very unlikely to be funded at levels which permit policy-makers to achieve all of their program goals for all students. Therefore, policy-makers will likely have to limit their programs’ purposes, the amounts of money awarded, the number of students assisted, and/or the types of institutions that recipients may attend.

**WHO SHOULD RECEIVE STATE GRANTS?**

The potential answers to this question are myriad, but typically fall in one of two major categories: (1) Should state grants go to financially needy students? (2) Should grants be awarded according to non-financial criteria, such as academic performance or intended major or career?

Awarding grants to students who are not financially needy is not an efficient use of dollars because it provides money to some students who can already afford to attend without grants and will do so. It is, however, an effective use of grant funds if the program’s primary purpose is to reward certain students. It is also an effective use of grant funds if it can be demonstrated that the program’s award criteria encourage students to study harder, take more difficult courses or otherwise better prepare for their education after high school.

Awarding grants on the basis of superior academic performance increases the probability that recipients will succeed academically (because only the most well-prepared students will receive grants) and thereby contributes to the goal of enhancing student retention. But it decreases the probability that lower-income students will receive awards because such students generally will not have achieved high test scores, grades or class rank. (Certainly not all lower-income students perform poorly on standardized tests or in college-prep curricula, but there are strong inverse correlations between students’ socioeconomic status and their scores and grades.)

Awarding grants to students who plan to pursue a particular academic major or career is likely to limit the number of students aided because only a portion of all students will choose them. It also is an inefficient practice because some recipients will change majors or careers after getting grants.

If policy-makers decide to award grants to needy students, they must assess “financial need.” There are two ways to do this: (1) Compare the aid applicants’ overall family financial strength or “ability to pay” for postsecondary education and give preference to students with the least
When awards are based on “ability to pay,” lower-income students are likely to receive a larger share of the grant funds. Also, students enrolling at public institutions — especially community colleges — are likely to get a larger share of the total grant program dollars because lower-income students are more likely to attend these colleges. Because public colleges typically have lower tuitions than private colleges, basing awards on “ability to pay” is likely to assist more students with a fixed appropriation. Lower tuitions (or Student Expense Budgets) mean lower financial need; that, in turn, means lower average grant awards and, consequently, greater numbers of awards from finite funds.

When awards are based on “financial need,” more middle-income students who attend four-year colleges — especially private ones — are likely to get more grant dollars. This is because their tuitions (or Student Expense Budgets) frequently will be higher and, therefore, their “financial need” greater, than those of lower-income students attending public colleges.

**Which Kinds of Institutions Should State Grant Recipients Attend?**

Students use their state grants at specific institutions. Therefore, this money can be considered indirect institutional aid — in effect, a discount on the price of attendance which, in turn, can affect student enrollment choices. Giving state grants to students to attend state-supported institutions helps maximize the effectiveness of all state revenue spent on postsecondary education. Public institutions exist to provide accessible education to a state’s residents. But if the residents cannot afford to enroll, the states will fail to fully benefit from the millions already invested in establishing and maintaining the public institutions.

If a relatively small amount of additional money for state grants enables students to enroll at the public colleges, achieve their educational goals, and maximize the state’s investment in its institutions, then it seems appropriate for policy-makers to want state grant recipients to attend them, if only to increase the effectiveness of the state’s total support of postsecondary education.

The case for giving grants to students to attend private colleges can be made on the basis of efficiency. It generally costs states more when enrollments grow at public colleges because state appropriations to colleges are often linked to enrollment numbers. It costs states still more if their public colleges’ students are also state grant recipients. Therefore, if a state gives enough grant aid to enable its students to afford private colleges, it will have used its funds more efficiently — provided these grant amounts are less than the total amount the state would have paid in direct subsidies and state...
When program funds are finite, a program that emphasizes "choice" is likely to make fewer grant awards than one that emphasizes "access."

grant awards for the recipients to attend public institutions.

A decision to allow students to enroll at many different kinds of postsecondary institutions acknowledges the fact that all institutions do not have equally appropriate programs, environments and services for every student. Students have differing needs, and institutions meet those needs in various ways and with varying degrees of success. Some state grant programs simply let students choose which institutions they want to attend, others try to enhance their recipients' ability to choose among many alternatives.

If they decide to help grant recipients enroll at the institutions of their choice, policy-makers must recognize that they are likely to spend more grant money on fewer students. Because some students will choose higher-priced institutions, the size of the average grant award will increase. Therefore, when program funds are finite, a program that emphasizes "choice" is likely to make fewer grant awards than one that emphasizes "access." When their college expenses are higher, the students' financial needs are greater.

If their financial need is greater, then their need for enough aid to afford the higher-priced colleges will increase the demand on the program's dollars.

Even when a program emphasizing "choice" does not make awards on the basis of financial need, because average attendance charges will be higher, a higher average grant will be needed to have any meaningful effect on the recipients' ability to afford to enroll at a higher-priced private college. Therefore, fewer students will receive grants from a finite amount of program dollars.

On the other hand, a grant program emphasizing "access" to lower-cost, usually public, institutions will be able to make smaller average awards because lower charges result in lower financial need (for grants from a "need-based" program) and relatively small "non-need-based" grant awards can cover a larger percentage of the students' expenses. Grant program dollars generally help larger numbers of recipients when more attend public rather than private institutions.

The most obvious answer to "How much?" is "Enough to achieve the program's goals for the students." But state grant programs generally are not sufficiently funded to achieve all of the goals for as many students as desired. Instead, policy-makers must decide "How much" is necessary for their program to be effective for the students they can help.

One way to increase award effectiveness is to consider the aid amounts available to recipients from other sources — such as the federal government, the students' institutions or private scholarships. Consideration of these other potential sources of aid introduces another question: "Should grant program awards complement, supplement or disregard aid from other sources?"

A complementary state grant program provides assistance to students not served by other aid programs. For example, a complementary program might serve

**How Much State Grant Aid Should Students Receive?**
students who are enrolled on a less-than-half-time basis. A supplementary state grant program provides additional assistance to students already being served by other aid programs but whose financial aid needs are not fully met by those programs.

Policy-makers who want either to complement or supplement aid from other programs must know what kinds and amounts of aid are received by the students they intend to help. Unfortunately, few states have ready access to these kinds of data. State grant program administrators typically know or can find out what other kinds of aid their grant recipients receive, but they know relatively little about how much aid is available to all students — or how much is really needed. (Policy-makers would be wise to invest more grant program appropriations in research on the distribution of grant awards and their effects on student enrollment behavior, which is very likely to result in more effective policy-making.)

Policy-makers may decide to disregard the kinds of students assisted by other parties and the amounts and types of assistance available to them. This is most likely to happen when policy-makers view grants as rewards for recipients’ previous or expected achievements, as in the case of non-need-based scholarships and award programs for veterans or their dependents. In these instances, their answers to the “How much aid?” portion of the basic question will largely depend on their program’s funding levels and the numbers of students they want to assist. If policy-makers want to give every recipient a fixed grant amount, then that approach will limit the number of awards that can be made from a finite appropriation.

Policy-makers wanting to complement other aid programs have to consider what grant amounts will enable their target recipients to achieve the intended program goals. If, for example, policy-makers are interested in helping less-than-half-time students gain access to public colleges, their award amounts might be relatively small, covering the recipients’ relatively modest tuition and fees and perhaps some of their books and supplies while asking them to pay for their living expenses. But if they want to help grant recipients achieve some degree of choice, and help some less-than-half-time students enroll at higher-priced private universities, then their award amounts would need to be higher.

For policy-makers wanting to supplement other aid programs’ awards, the answers to “How much aid?” will depend on the amount of aid that target grant recipients receive from other sources. For example, if policy-makers wanted to assist the students who can least afford to pay for education, they would need to consider how much money such students receive from the Federal Pell Grant Program. They might discover that Pell Grant awards usually cover many lowest-income students’ total expenses to attend community colleges. So they might then focus their program efforts on supplementing the Pell Grant awards to lowest-income students to attend the higher-priced four-year public and private colleges.

In considering answers to “How much aid?”, policy-makers should be ever mindful that their aid program awards are intended to affect student behavior. The awards are intended to enable recipients to do something they would not or could not have done without them. It is very difficult to anticipate or assess the effects of state grant aid on student behavior. Policy-makers should think of the potential effects within the parameters of “probabilistic” rather than “deterministic” models of student behavior. That is to say, giving students a state grant does not
There are no formulas to help decide whether to provide a little aid to many students or a large amount of aid to fewer students.

“determine” that every recipient will behave as the program goals anticipate. To use an extreme example, offering state grants large enough to cover all education expenses for students who have never previously succeeded in any academic endeavors is unlikely to result in their attending college. Awarding a state grant does not directly and invariably result in some intended student behavior.

However, giving students state grants can enhance the probability of their achieving some intended program goal. For example, there is a very high probability that giving state grants to lower-income students who want very much to attend college, have prepared to do so, and are but a few hundred dollars short of having enough financial aid to afford it will result in their enrolling. On the other hand, there is a very low probability that giving $500 grants to students who need $5,000 in additional aid to cover their expenses will cause many to enroll. The probabilities of specific student responses to grant awards are affected by many factors, including the students’ preparation for and motivation to attend postsecondary education, their access to aid from other sources, the amount of their state grant awards, the students’ education expenses and academic interests, the availability and proximity of attractive educational opportunities, their motivation and the extent to which they are willing to sacrifice to attend college, and many other personal and individual factors. So policy-makers should not expect all students to respond the same way to a given program policy.

Nevertheless, research has shown that there are important student characteristics associated with relatively high probabilities of response. For example, McPherson and Schapiro (1991) and St. John (1990), among others, have found that lower-income students are more responsive to changes in college prices than are middle- and upper-income students. Increases in college expenses or cuts in student financial aid are much more likely to have negative consequences on the enrollment behavior of more lower-income students than affluent ones. Put another way, it will typically take more grant aid to produce a positive response among lower-income students than among middle- and upper-income students.

In determining how much aid to give individual students, some policy-makers will want to consider the relative or absolute numbers of recipients they want to assist. Obviously, when awards are made from finite appropriations, giving individuals larger awards will mean that fewer students will receive them. Some policy-makers may decide that it is important for their states to help the maximum possible number of students, so they might lean toward giving more students smaller awards. Other policy-makers may decide that it is important to give enough aid to individual recipients to be certain that recipients will have enough aid to achieve their goals. There are no formulas to help decide whether to provide a little aid to many students or a large amount of aid to fewer students. Some policy-makers have chosen to provide smaller awards to many students, assuming that helping as many as possible will give more families a stake in the program and possibly increase political support for it. Others have decided that giving large enough awards to ensure student success, even though this means helping fewer students, will enhance public and political support for their programs.
HOW ARE PROGRAM GOALS AND OUTCOMES RELATED?

By now it should be apparent that answers to one part of the basic question interact with and establish boundaries for answers to other parts. These relationships are explained further in Figure 1 on Page 11, “Interaction of Goals and Outcomes of State Grant Programs.”

For example, if “access” is a program’s emphasized goal, the program is likely to:

- Supplement aid from other sources, particularly the Pell Grant program.
- Award most grant dollars to lower-income students.
- Emphasize the recipients’ ability to pay.
- Place little emphasis on merit.
- Make awards to students who attend public colleges, likely community colleges.
- Make relatively small average awards.
- Make awards to relatively large numbers of students.
- Make more awards to students in the initial years of postsecondary education because many will enroll at community colleges.

On the other hand, if “choice” is a program’s emphasized goal, it is likely to:

- Both supplement and complement aid from other sources.
- Award most dollars to middle-income students.
- Emphasize the recipients’ financial need.
- Place little emphasis on merit (but recipients are more likely to exhibit merit because they probably will attend more selective colleges).
- Make more awards to students to attend four-year private colleges and public universities.
- Make larger awards, on average, because more students will attend higher-priced institutions.
- Make fewer awards to students because individual grants will be larger.
- Make more awards to students in later years of college.

If “retention” is a program’s emphasized goal, it will make more awards to four-year college students because they will be enrolled for more years. It will make larger average awards than if “access” is emphasized (because more recipients will attend higher-priced four-year institutions), but slightly smaller average awards then if “choice” is emphasized (because many lower-income recipients who make it into the first years of college will not make it into the latter years).

If “equalizing tuitions” is the goal, the program is likely to complement aid from other sources because many high-income students attending private colleges without aid from other sources would qualify for grants.

Programs that emphasize preparation for a particular career are likely to:

- Both supplement and complement other aid programs.
- Make non-need-based awards to enlarge the potential pool from which recipients can be drawn.
It is unlikely that any one state grant program will achieve all goals for all students.

SUMMARY AND CONCLUSIONS

There are many factors to consider in designing a state grant program. The most important involve answers to the basic question “Who should receive how much aid to attend which kinds of institutions for what purposes?” If these questions, and the issues underlying potential answers, are addressed while paying careful attention to the many interrelationships illustrated above, policy-makers should be able to design state grant programs that optimize their goals, resources and intended outcomes. It is unlikely, however, that any one state grant program will achieve all goals for all students. As a matter of fact, many states have multiple programs. It is hoped that this framework will: (1) help policy-makers identify the many purposes for which state grant programs exist; (2) assist in the reconciliation among these often conflicting purposes; and (3) guide development of programs that better achieve intended goals.

ABOUT THE AUTHOR

Jerry Sheehan Davis, vice president for Research at Lumina Foundation for Education, has conducted research in student financial aid and related matters for more than 30 years and has published numerous monographs, research reports and articles on these and other topics. Before joining the Foundation in November 1999, he was president of the Sallie Mae Education Institute and vice president for research and policy analysis at the Pennsylvania Higher Education Assistance Agency (PHEAA). He currently chairs the research committee for the National Association of State Student Grant and Aid Programs (NASSGAP), and for 12 years he compiled and wrote the association’s annual report on the states’ student aid programs. He has also served as a staff researcher or manager with such organizations as the National Task Force on Student Aid Problems (the Keppel Task Force), the College Board and the Southern Regional Education Board.


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**Figure 1: Interaction of Goals and Outcomes of State Grant Programs**

<table>
<thead>
<tr>
<th>PROGRAM GOALS</th>
<th>ACCESS</th>
<th>CHOICE</th>
<th>RETENTION</th>
<th>REWARD TALENT</th>
<th>EQUALIZE TUITION</th>
<th>CAREER CHOICE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Supplement or Complement Pell Grants</strong></td>
<td>Supplement</td>
<td>Both</td>
<td>Both</td>
<td>Complement</td>
<td>Complement</td>
<td>Both</td>
</tr>
<tr>
<td><strong>Likely Recipient Income Levels</strong></td>
<td>Mostly Lower Income</td>
<td>Mostly Middle Income</td>
<td>Mostly Middle Income</td>
<td>Middle &amp; Upper Income</td>
<td>Middle &amp; Upper Income</td>
<td>All Income Levels</td>
</tr>
<tr>
<td><strong>Emphasis on Need or Ability to Pay</strong></td>
<td>Ability to Pay</td>
<td>Financial Need</td>
<td>Both</td>
<td>Neither</td>
<td>Neither</td>
<td>Financial Need</td>
</tr>
<tr>
<td><strong>Emphasis on Academic Merit</strong></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Recipients’ Likely Institutions</strong></td>
<td>Public 2- and 4-Year</td>
<td>Private/Public 4-Year</td>
<td>Private/Public 4-Year</td>
<td>Only 4-Year Private</td>
<td>4-Year Public</td>
<td></td>
</tr>
<tr>
<td><strong>Relative Average Award Size</strong></td>
<td>Relatively Small</td>
<td>Larger than Access</td>
<td>Larger than Access, Smaller than Choice</td>
<td>Smallest</td>
<td>Largest</td>
<td>Larger</td>
</tr>
<tr>
<td><strong>Relative Number of Awards</strong></td>
<td>Largest Number</td>
<td>Fewer than Access</td>
<td>Fewer Than Access, More than Choice</td>
<td>Larger (Same as Access)</td>
<td>Fewer</td>
<td>Fewest</td>
</tr>
<tr>
<td><strong>Academic Years Targeted</strong></td>
<td>Early Years</td>
<td>Later Years</td>
<td>Later Years</td>
<td>Later Years</td>
<td>Later Years</td>
<td>Early/Middle</td>
</tr>
</tbody>
</table>
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