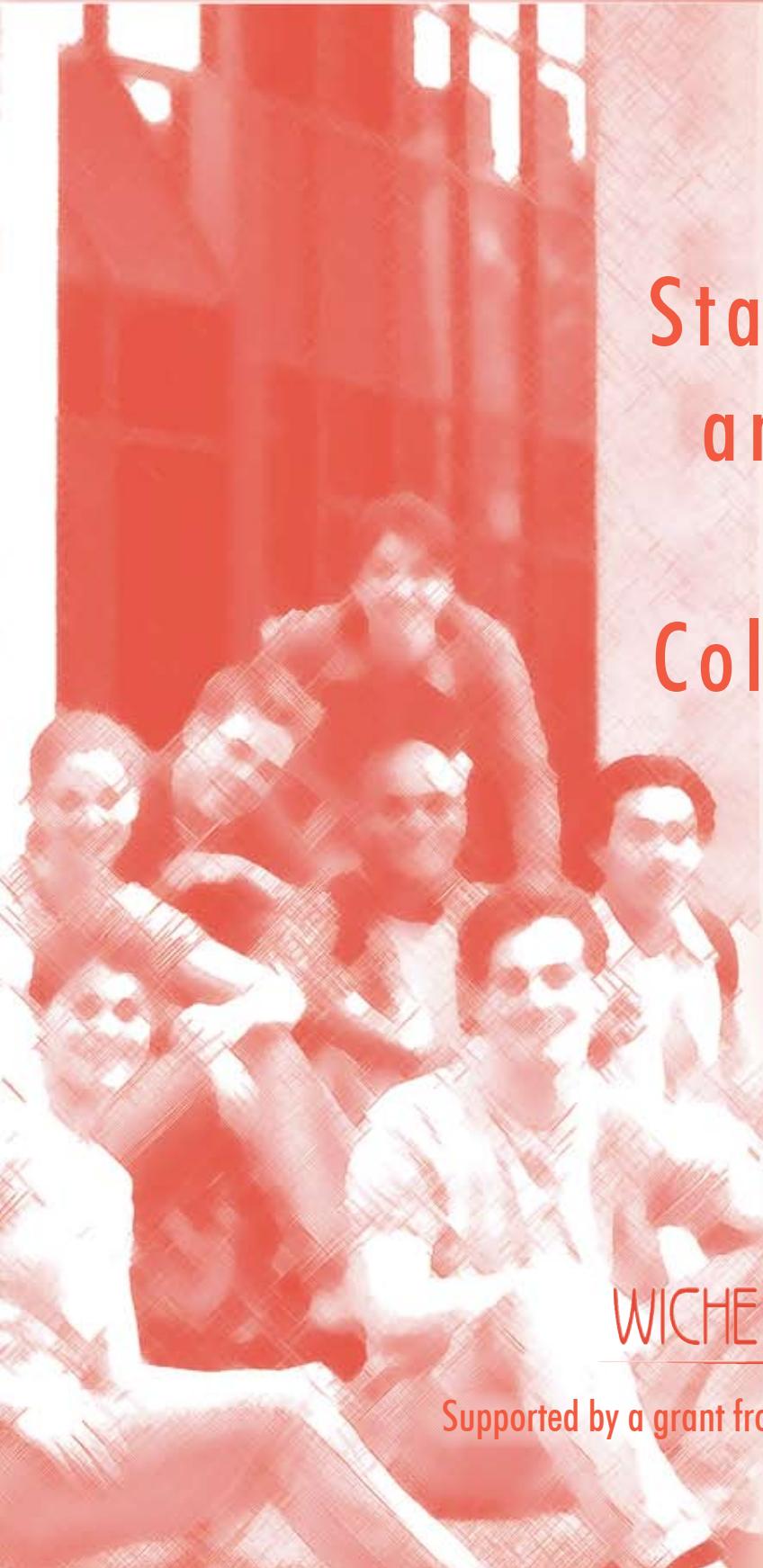




CHANGING DIRECTION:

Integrating Higher Education
Financial Aid and Financing Policy



State Grant Aid and Its Effects on Students' College Choices

June 2007

WICHE



Supported by a grant from Lumina Foundation for Education

State Grant Aid and Its Effects on Students' College Choices

**Patricia M. McDonough
Shannon M. Calderone
William C. Purdy**

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The Western Interstate Commission for Higher Education (WICHE) is an interstate compact created by formal legislative action of the states and the U.S. Congress. Its mission is to work collaboratively to expand educational access and excellence for all citizens of the West. Member states are:

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This publication was prepared by the Policy Analysis and Research unit, which is involved in the research, analysis, and reporting of information on public policy issues of concern in the WICHE states.

This report is available free of charge online at http://www.wiche.edu/Policy/Changing_Direction/Pubs.asp.

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Contents

Acknowledgments.....	v
Foreword.....	vii
Executive Summary	ix
Introduction	1
Higher Education Financing	6
Examples of State Grant-aid Programs.....	9
Arkansas	9
District of Columbia.....	11
Florida	12
Georgia	13
Indiana	15
New Jersey.....	16
New Mexico.....	17
Nevada	18
Oklahoma.....	19
South Carolina.....	21
Tennessee	22
Cross-state Comparisons	24
Implications for States Considering Grant-aid Programs	24
Endnotes	29
References.....	35
About the Authors	40

List of Tables

Table 1. Merit-aid Awarded by State (10-year Comparison)	7
Table 2. Residence and Migration of Freshman in Four-year Degree-granting Institutions who Graduated from High School in the Previous 12 Months, Fall 2004	9
Table 3. Eligibility Requirements and Award Amounts for Three Florida Bright Futures Scholarship Awards	12
Table 4. 2006 Oklahoma's Promise-OHLAP High School Graduates.....	20
Table 5. South Carolina Merit Awards, Eligibility Requirements, and Amounts.....	21
Table 6. Tennessee Lottery Education Scholarships: Merit- and Need-based Eligibility Requirements.....	23
Table 7. Characteristics of Selected State Grant-aid Programs.....	25

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The opinions expressed in this report are those of the authors and do not represent the view of Lumina Foundation, WICHE, or their employees.

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William C. Purdy

June 2007

Foreword

In the mid-20th century, a new egalitarian spirit captured American higher education, thanks in part to the advent of substantial federal student aid after the passage of the Higher Education Act of 1965. Just as this spirit captured the imagination of the federal government, so too did the states catch the spirit. Attracted by “matching funds” from the federal State Student Incentive Grant Program, virtually every state adopted some form of need-based student financial assistance to help defray the expense of college for students with assessed financial need.

Late in the century, however, both federal and state governments began to adopt programs that assisted middle-income students. Often dubbed “merit aid” programs, these initiatives had very different purposes than did the programs focusing on needy students. Merit programs were designed in part to keep the best and brightest students at home, in part to encourage students to perform to their highest potential, in part to address the legitimate college-cost concerns of middle-income Americans, and in great part because they were, politically, very popular.

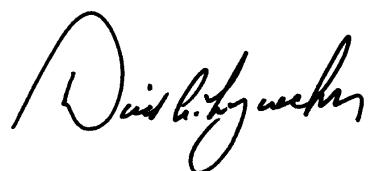
Within a short period of time, however, a number of states began to blend the two concepts, offering financial encouragement (the promise of aid and affordability) to the most academically and financially at-risk students in exchange for their preparing well for college.

In this paper, Patricia M. McDonough, professor of higher education at the University of California, Los Angeles, and two of her graduate students, Shannon M.

Calderone and William C. Purdy, describe how various states have designed their respective financial aid programs. The authors demonstrate how different policy goals and objectives have led to different approaches to financial aid, with likely differences in the consequences for student participation and success. Those considering new ventures into the financial aid arena or those thinking in new ways about their current systems can learn much from the experiences of these states.

This work was supported by a grant from Lumina Foundation for Education as part of WICHE’s *Changing Direction: Integrating Higher Education Financial Aid and Financing Policy* project, which has focused on how states can intentionally change finance policies – appropriations, tuition, and financial aid – to expand access to success, particularly for the most at-risk young adults.

We at WICHE appreciate the support of Lumina Foundation and the efforts of the authors of this paper in advancing our work with states to *change the direction* of higher education finance in order to enhance the success of all students, particularly those who have traditionally been underrepresented in our colleges and universities.



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Executive Summary

WICHE commissioned this paper to help policy leaders and decision makers understand the impact of selected state financial aid programs on students' choices – choices of which college to attend, where to attend college, and even whether to attend college at all.

As the paper shows, states have created grant-aid programs for a variety of reasons and through a variety of funding sources. Among the most popular and growing forms of state grant-aid programs are those that blend financial need with certain academic benchmarks for students' high school course of study (to aid academic preparation for college) and benchmarks for continued academic progress in college (to aid in persistence to the degree). This relatively new category of state grant-aid does not easily fit either of the common categories of need-based aid and merit-based aid. In fact, the need versus merit dichotomy no longer applies for states operating these "blended aid" programs because they most often use need as the first qualifier and achievement of certain academic or behavioral goals as the second qualifier.

In part, states created these blended-aid programs to keep students in the state for college as a way to help ensure that there is a highly qualified workforce in the pipeline. States also created these programs, however, to help students who might be most at-risk become better prepared, academically, for college. No amount of money, no matter how large, can mitigate a lack of academic preparation. These blended-aid programs also provide incentives for students to attend college directly out of high school. Most states promote this linear college attendance

because state-level research shows that students who are academically ready, have the financial means, and attend college directly out of high school are more likely to finish their degree program.

A three-phase model for making the transition to college and making choices about college comes into play early in the paper. Students from low-socioeconomic-status families are often without the information or the means to know how to access information on the financial aspects of attending college. Furthermore, there is substantial cultural variability to price signals; personal estimations of affordability can be affected by this variability across cultural groups. To address these conditions, many states that have invested in blended-aid programs have also invested in "college access marketing," targeting the very populations that most need the aid, the preparation, and the information about getting ready for college.

This paper examines grant-aid programs in 11 states in varying degrees of detail. In some states, all the need-, merit-, and blended-aid programs are described, along with the policy environments that gave rise to them. In other states, only some of the programs are analyzed because they served as the most useful examples. This analysis identifies the start date for the programs and describes the qualifications for eligibility, the legislation that established the programs, and the policies and political environments involved in creating them.

The authors make several recommendations to states that are considering creating grant-aid programs. First, states need to work

together with the federal government and institutions to mitigate the increasing cost of college. Over time, loan indebtedness has increased; creative tax credits have emerged; and state and institutional grants have moved, in some instances, more toward a focus on merit. Currently, we lack a comprehensive student-aid policy that provides the appropriate amount of financial aid for students, especially low-income students, while also providing incentives to prepare academically for college. By working together, states, their institutions, and the federal government can move toward achieving such a policy.

The authors also recommend that states learn from other states and their experiences about state grant-aid programs. This recommendation is the one most likely to be of value to readers. Three lessons are especially valuable:

- ▶ Start small and increase aid over time (a lesson learned by states operating programs through lottery revenues).
- ▶ Segment income groups and fund the lowest-income students first.
- ▶ Adequately fund aid during the entirety of a student's time in college, up to the receipt of the degree.

Finally, the authors challenge states to conduct empirical studies of their aid programs when possible. In most states, higher education systems have the capability to track student progress longitudinally, though they tend to present their data as descriptive statistics on their websites and in reports and informational materials for public consumption. While these statistics are important in describing key trends in higher education, evaluation studies that tease out the actual impacts on students' college choices would provide additional

insights useful to state policymakers and institutional leaders.

In the end, the data available drove the report in a direction that was somewhat less about students' choices and more about the policy environments that give rise to different forms of need programs in the states studied. Although the paper uses some data to posit the impact of various programs on students, in many cases the data and analysis say more about state policy than they do about students' choices, and in this way, the paper is particularly informative and useful. Because of gaps in the information available, however, it cannot fully answer the questions originally posed, and the effects of state grant aid on students' college choices remains an area worthy of further research.

Introduction

The question of how to improve college-participation and success rates has dominated the public policy discourse on higher education in recent years. Such discourse frames postsecondary access and success as a national imperative, one intimately linked to continued U.S. economic advantage in the global economy.¹

Impacting efficient and equitable flows through the educational pipeline are persistent inequalities that have resulted in a college-participation gap between low-income and high-income students. Similarly, the college-participation rates of our highest-achieving, low-income students are equivalent to those of our lowest-achieving, highest-income students.² Yet workplace demand for college graduates who have the range of complex skills necessary to support our information-based economy requires that we develop policy solutions that will sufficiently address participation gaps for low-income students.³

Current research identifies priorities for shrinking the college access gap. These include increasing college affordability and improving academic preparation for college.⁴

A fundamental focus of federal, state, and institutional financial aid for the past half century has been to increase college access and educational attainment.⁵ In particular, need-based financial aid has been a policy tool for increasing the college-participation rates for underrepresented groups, including low-socioeconomic-status students and African American, Latino, and Native American students. Indeed, student aid has had the effect of markedly improving college

opportunity for underrepresented groups, as reflected in the huge growth in college attendance and educational attainment.⁶ Yet, despite the increased opportunities for these students, gaps in success remain.

At the same time, a fundamental shift in national financial aid policymaking over the last 20 years has complicated the lower-income access picture. Although financial aid was understood to be an effective tool for eliminating financial barriers to postsecondary participation for those who could ill afford the high cost of attending, states now are using it as a means of promoting success, not simply access. Further, over the last 20 years national and state policy has endured a shift in focus that now includes awarding financial support on the basis of merit, and sometimes behavior, rather than only on need.

While some states have historically supported merit-aid programs (notably, the New York State Regents Scholarships), investments in these early programs involved proportionally modest sums. Since the early 1990s, however, a number of states have introduced merit-aid as well as blended aid programs as a prominent financing strategy intended to maintain state-level investment in college-going while also raising K-12 accountability and standards by rewarding students on the basis of merit (as determined by certain state-specified standards for high school or college), need, and sometimes behavior. These state grant-aid programs represent a growing trend in financial aid and, possibly more significantly, they represent a growing proportion of state investments in student aid.

As a relatively new policy innovation, merit-only programs have elicited public disapproval and praise.

Proponents see merit-aid programs as offering great promise for maintaining a state's long-term economic competitiveness, as well as for linking educational subsidies to performance and thereby increasing accountability. Moreover, merit-aid programs are sometimes viewed as providing relief to middle-class families from rising college costs and thus are popular with many middle-class voters.

Yet critics see these programs as fundamentally flawed because they award financial support on the basis of merit rather than need and may not effectively close the college-participation gap. Merit-aid programs are often perceived as directing scarce state-aid resources to students who would already be attending college, while diverting already inadequate aid from economically needy populations who would likely not attend college without such aid. Blended-aid programs are ones where both merit and need are considered, and although their impacts have not been rigorously studied, they do direct some aid to needy students while serving states' desires to provide incentives for high achievement.

The impact of state grant-aid programs on college choice has important implications for determining whether state scholarships serve as a policy solution that sustains an accessible, financially viable state system of higher education, particularly for low-income families. This policy paper considers the implications of state grant-aid programs on student college-choice processes. It seeks to answer two key questions:

- To what extent do selected state grant-aid programs support or limit students' choices, particularly the choices of low-income students and students of color?
- Are state grant-aid programs successful in improving access for all state residents, or do they unintentionally fuel current enrollment disparities across race, ethnicity, and class lines?

We begin by looking at the current state of knowledge on financial aid and college choice, as well as at existing research on the way students negotiate the academic pipeline leading to college decision making. We will then consider the historical conditions leading to the creation of state grant-aid programs, elaborating on the current debates surrounding the employment of these programs as policy solutions to financing state support for higher education. Finally, we will highlight 11 exemplars out of the 22 existing state programs – including programs that represent a range of designs, selectivity criteria, and outcomes – in order to discuss the relative effectiveness of these initiatives on college-choice determinations. Based upon these discussions, we will provide a series of policy suggestions for evaluating and assessing state grant-aid programs in relation to student choice.

The Transition to College

The path to college represents a complex, longitudinal process mediated, in large part, by individual aspirations and achievement, high school learning contexts, and institutional admissions policies and procedures.⁷ Marked disparities in individual, community, and family resources, as well as in college-going information, have tremendous bearing on whether a student chooses to attend college or not.⁸ Research suggests that the acquisition

of college qualifications, a rigorous high school curriculum, graduation from high school, and application to college are the key factors leading to college eligibility and matriculation.⁹

There are three critical stages in the long journey of college decision making – the predisposition, search, and choice stages.¹⁰ The predisposition stage begins in elementary school and continues through middle school, with most students developing some postsecondary educational or job plans by the 9th grade.¹¹ In the middle school years, students need to be informed of college entrance requirements, be enrolled in a college-preparatory curriculum, be engaged in extracurricular activities, and begin to learn more about financing a college education.¹² During the 10th through 12th grades, students are in the search phase, which involves gathering the information necessary for them to develop a short list of potential colleges. In this phase high-socioeconomic-status (SES) students tap into more information sources on the admissions process and become more knowledgeable about college costs.¹³ The choice phase roughly begins in the 11th grade and culminates in the 12th. It represents one of the critical points at which college costs and financial aid play into the college choices of most students, but particularly into those of low-SES students, African Americans, and Latinos, who are highly sensitive to tuition and financial aid issues.¹⁴ Like most students, they are negatively influenced by high tuition but positively influenced by financial aid.¹⁵

Assessing Opportunity

While the three-phase model offers a simplified, comprehensive schematic for understanding college-choice processes, navigation through these phases can be particularly precarious for low-income, first-

generation, and minority students who lack adequate college information and guidance counseling, quality schooling opportunities, and family and community resources, as well as relevant cultural capital.¹⁶ In 2007, 3.1 million students are expected to graduate from U.S. high schools. By 2009 this number is projected to modestly increase to 3.2 million high school graduates. The composition of the student population, however, will look very different, with students of color representing the vast majority of the growth of new students; students from poor or modest-income families will also have disproportionate representation.¹⁷

Only about half of all African American and Latino 9th graders graduate from high school, compared to almost four-fifths of Asian Americans and three-quarters of Whites. Low-income and underrepresented minority students who do successfully graduate from high school tend to have had more limited access to the rigorous coursework needed for college readiness.¹⁸ Although the number of African American, Latino, and Native American students enrolled in college has risen, those enrollment figures are far below the representation of those students in K-12 schools and also below what would be projected for average college attendance, given K-12 enrollment figures.¹⁹

In large part, individual college opportunity is predicated on K-12 institutional opportunity. Students' abilities to learn are in good measure reflective of the following K-12 school conditions: the quality of the school, as measured by the level of rigor of the curriculum, learning environments, and resources; the quality of teachers, as indicated by teacher test scores and preparation; the expectations and encouragement that teachers hold for

students; and the availability, quantity, and quality of high school counseling.²⁰ The ability to learn is negatively affected by the persistent and pernicious racial and ethnic segregation in American schools; dropout rates; and financial constraints. Reports on the condition of K-12 education in low-performing schools serving primarily urban students of color find that these schools “shock the conscience” because they lack minimal learning essentials – books, qualified teachers, and safe places to learn.²¹

Thus, the K-12 student-achievement gap between underrepresented minority and majority students is still profoundly large, and poor students and students of color still experience major barriers to college access.²² Is it any wonder that today’s gaps in high school graduation and college enrollment are tied to race and income or that 18 percent of U.S. African American and 10 percent of Hispanic adults in their late twenties have a college degree, compared to one-third of White adults?²³ Yet, despite the inequities in outcomes, 60 percent of adults believe that, regardless of costs, education is so indispensable that they will do whatever it takes to ensure their child’s college attendance.²⁴

Thoughtful consideration of state-level college financial aid policies is of paramount importance if we want to improve overall college access and success, particularly among low-income students. How does cost shape the college choices? What are the effects of tuition pricing, indebtedness, and financial aid availability on college choice and matriculation? Finally, to what extent does students’ racial, ethnic, and social-class status affect their college cost-benefit assessments and thus impact the college-going decisions of low-income, underrepresented populations? While

the financing of college represents only a partial answer to improving the college participation and success of low-income and underrepresented populations, research on the impact of cost on choices serves as an important context for state-level policymaking that is intended to enhance postsecondary success for all students.

Effects of Cost and Aid on College Choice

The relevance of costs and financing to the college-choice process has significant bearing on the relative outcome of the predisposition, search, and choice stages. The associated cost of going to college represents a major determinant of whether students perceive college as within their reach.²⁵ Tuition pricing has been found to have direct effects on a student’s final matriculation set, as do financial aid packages, “expected family contribution” (or EFC), and actual costs.²⁶ Research conducted on pricing effects for low-SES students finds that lower-income, dependent students tend to be more sensitive to tuition price and financial aid availability than their higher-income counterparts.²⁷

Furthermore, low-SES students tend to be the most susceptible to tuition price increases, with some opting to consider alternative postsecondary pathways to college or, once enrolled, facing increased risk of dropping out of college.²⁸ To illustrate this point, Heller’s update of Leslie and Brinkman’s 1988 landmark study on the relationship between enrollment patterns and tuition indicated that for every \$160 (in 1994 dollars) in increased tuition, enrollments dropped by .5 percent in four-year, public institutions and by 2.3 percent in community colleges. Given that net price in public four-year colleges has risen rapidly since 2001-02 (5.6 percent between 2005-06 and 2006-07 alone for all four-year public

universities), the subsequent impact on low-income and underrepresented-population enrollment rates reflects a need for policy intervention in the area of aid.²⁹ Indeed, other research offers compelling evidence to suggest that financial aid in large part mediates the final destination choices of students from lower-income and working-class families and that those choices are often made in response to pricing and financial aid availability.³⁰ As a consequence social class plays a substantial role in the college-choice process as it greatly reduces the probability that lower-SES students will enroll at their optimal college choice or persist towards a degree.

In the last 20 years, overall declines in several indicators of the American family's standard of living suggest that, assuming no change in college prices, the ability of low- and middle-income families to pay for college will continue to fall dramatically over the next decade.³¹ Declines in personal income and savings, increases in consumer debt, and rapidly increasing tuition result in a potentially devastating cost conundrum for low- and middle-income families.³² As a result more of these families are utilizing financial aid to leverage against the rising costs of college.

Financial Aid

While net increases in the cost of attending college are an important influence on the postsecondary participation of low-SES and traditionally underrepresented students, changes in the type, amount, or value of available student aid have been found to impact the enrollment choices of lower-income students.³³ Research suggests that the perceived availability of financial aid by lower-income families in effect increased the total number of postsecondary choices considered overall.³⁴ Further, once aid

and cost were factored in, traditionally underrepresented students tended to prioritize cost over institutional preference.³⁵

Despite the availability of financial aid at federal, state, and institutional levels, award offerings are increasingly falling short of actual need.³⁶ This fact has resulted in increased borrowing via federally subsidized, nonsubsidized, and private loans to pay for college-related expenses. Loans have represented an increasingly larger share of total aid for students over the last 20 years.³⁷ In 1975-76 grant and gift aid composed 76 percent of an average student federal financial aid package, while loans made up only 21 percent. By 2001-02, 77 percent of federal student financial aid awarded came in the form of loans.³⁸ Among full-time, dependent students, low-income students are less likely to borrow than other students, and when they do borrow, they take out smaller loans.³⁹ Clearly, the fact that these students are eligible for more need-based grants plays a role, as does their tendency to attend lower-cost institutions. But debt aversion may also factor into these decisions, particularly when it explains the choice of a low-cost institution.⁴⁰

Cultural variability to price signals and personal estimations of affordability also impact college-choice decisions.⁴¹ Affordability is a reflection of cultural practices around money and fundamentally shapes the ways in which families make investment decisions. Reinterpreting affordability as a localized, highly contextualized, deliberative process sheds potential light on why low-income students fail to claim state and federal financial aid even though they qualify, as well as why large-scale attempts to disseminate financial aid information, streamline the Free Application for Federal Student Aid

(FAFSA) process, and improve practitioner knowledge related to financial aid have resulted in minimal improvements to the college-financing perceptions of those most in need. In effect, cultural practices around consumption, indebtedness, and the underlying processes by which cost-benefit analyses occur have special relevance to college-choice decisions regardless of socioeconomic status.⁴²

What becomes clear from the existing literature on college costs, financial aid, indebtedness, and affordability is that the financial and opportunity costs associated with college continue to influence whether and where a student chooses to go to college. Those particularly impacted by fluctuations in cost – lower-income and underrepresented students – are also the most apt to identify alternative postsecondary paths in the wake of perceived financial stress. Financial aid represents important leverage in responding to the rising costs of college. Yet the implicit risk of financing a college education, particularly in relation to debt accumulation, has bearing upon college-choice decisions for all students, but particularly for those who are low-income. Given the substantial role of states in subsidizing higher education, state-level policy decisions around financial aid have the potential to help ameliorate cost barriers to college for those most in need.

► Higher Education Financing

Given the importance of financial aid to postsecondary deliberations, a great deal of research concern has focused upon the shifts in state and federal policy emphasizing

merit over need-based aid.⁴³ Because states generate the lion's share of college funding, the historical trends in state higher education financing, including the introduction of state grant-aid programs, have tremendous relevance to questions of college choice.

The passage of the Higher Education Act (HEA) of 1965 offered unprecedented support for the creation of a federal financial aid system designed to expand college opportunity and promote access, particularly for those who could ill afford the cost of attending a college or university. The HEA and the Basic Educational Opportunity Grant (now commonly known as the Pell Grant) represented the most significant public policy interventions intended to increase postsecondary participation across socioeconomic sectors. In providing grant monies to increase college opportunities for those historically marginalized and underrepresented within our nation's colleges and universities, federal financial aid offered the promise of supporting a more accessible and egalitarian system of higher education. Yet the federal focus has historically been on access.

Recently, however, this focus appears to have begun to shift from a pure access strategy to one that embraces both access and success. The federal government recently created two financial aid programs that for the first time are not solely based on need. The Academic Competitiveness Grant and the Science and Mathematics Access to Retain Talent (SMART) Grant both are supplemental awards offered to Pell Grant recipients who take more challenging courses in high school and pursue college majors in high demand in the global economy, such as science, mathematics, technology, engineering, and critical foreign languages.

Since the Morrill Act of 1862, states have been the major contributors to the financing of higher education. In addition to providing institutional support, an important factor in tuition price setting, states have provided subsidies via financial aid that have had a direct influence on postsecondary opportunities for low-SES students. With the creation of the State Student Incentive Grant (SSIG) Program of 1972, established in conjunction with the Pell Grant, states were encouraged via federal matching incentives to establish state-run, need-based grant programs. By 1979 every state and the District of Columbia offered at least one grant program, with appropriations reported at over \$800 million.⁴⁴

State commitments to maintaining need-based support for low-SES students remained relatively constant throughout the 1980s. According to the National Association of State Student Grant and Aid Programs (NASSGAP), state trends in aid distribution between need-based and merit programs began to shift dramatically between 1981 (when merit-aid represented 12 percent of total aid) and 2002 (when it represented 26 percent of total aid).⁴⁵ Table 1 offers a snapshot of trends in merit-aid awards in selected states between 1994-95 and 2004-05, indicating that within this 10-year period, states generally increased their non-need-based aid, while at the national level, the overall amount of non-need-based aid increased by nearly 350 percent.

The increases in merit-aid generated at the state level seem to suggest greater accessibility for low-income and marginalized students, for whom guarantees of aid are certainly an important factor in their college decision making. However, research suggests that because merit-aid programs represent a growing proportion of state investments in student aid and they offer financial aid

**Table 1. Merit-aid Awarded by State
(10-year Comparison)**

State	1994-95 \$ Millions	2004-05 \$ Millions	10-year Change* %
Arkansas	.896	3.734	316.7%
District of Columbia	—	28.579	—
Florida	62.629	272.534	335.2%
Georgia	111.410	457.527	310.7%
Indiana	.420	11.375	2,608.3%
New Jersey	10.141	29.568	191.6%
New Mexico	.145	43.987	30,236.1%
Oklahoma	3.241	10.319	218.4%
South Carolina	—	198.535	—
Tennessee	.833	7.194	763.7%
U.S. Overall	396.793	1,777.307	347.9%

* 1994-05 to 2004-05.

Source: National Association of State Student Grant and Aid Programs, *36th Annual Survey Report on State-Sponsored Financial Aid: 2004-2005 Academic Year* (Washington, D.C.: National Association of State Student Grant and Aid Programs, 2006).

dollars to students who are already going to college, aid dollars may not be reaching economically needy populations as much as they should.⁴⁶

Background on State Merit-aid Programs

The increase in state merit-aid represents one of the most dramatic shifts in higher education policy since the introduction of the Pell Grant and SSIG in 1972.⁴⁷ According to the 2004-05 NASSGAP annual survey report, states awarded approximately \$7.9 billion in total financial aid during the 2004-05 academic year, amounting to a total increase of 8 percent nationally over 2003-04. While states continue to disseminate a majority of their financial aid in the form of need-based grants, merit-aid overall has been increasing.⁴⁸ Based upon NASSGAP figures for 2004-05, merit-aid represents 24 percent of the average total aid awarded to undergraduate education by states, as compared to 66 percent in need-based monies and 6 percent from a

combination of work-study, tuition waivers, loan assumptions, conditional grants, and the like.⁴⁹

Perhaps more importantly, state grant-aid programs represent an increasingly popular mechanism for distributing performance-based educational subsidies at the state level. As of 2006, 22 states had developed state grant-aid programs.⁵⁰ These programs often vary widely in terms of design, intended outcomes, selection criterion, and award amounts. The program that has generated the greatest attention is Georgia's HOPE (Helping Outstanding Pupils Educationally) initiative, which was established in 1993.⁵¹ The HOPE program represents the first attempt by a state to restructure its existing financial aid policy so that it could be utilized to build long-term economic competitiveness.⁵² While certainly the focal point for much of the extant discussion is on the viability of state merit programs, HOPE is not the first such incentive program geared toward providing postsecondary financial support on the basis of performance. The New York State Regents Scholarship Program, the country's longest-running and largest merit-aid effort – dating back to the 19th century – also provided financial support to students on the basis of individual examination performance, but it was unceremoniously cut from the New York State budget in 1982.⁵³

While New York's program serves as the historic predecessor to HOPE, Georgia's program represents a radical departure in terms of policy context, design, eligibility requirements, and perhaps most importantly, scale. Unlike New York's program, which was designed to support elite, high-performing students whose postsecondary plans were solidly in place, HOPE represents a far-ranging attempt at bolstering Georgia's

"human-capital" capacities through broad-based merit aid.⁵⁴ As such, HOPE represents an early strategic deployment of state higher education resources for the purpose of spurring economic growth and development.⁵⁵ This initiative serves as a policy complement to the wholesale shift in federal, state, and institutional commitments to merit over need-based aid.

Justifications for State Grant-aid Programs

One of the main reasons states offer college scholarships and financial aid to their residents is to recruit and retain resident students – to keep high school graduates in the state for college and then keep them home following graduation.⁵⁶ Efforts to retain college graduates are set against the backdrop of regions, states, and cities that are competing for what research Richard Florida calls the "creative class" – talented, highly educated people. Retaining these individuals is important because of the demonstrated link between human capital and economic growth.⁵⁷ Universities directly attract faculty, researchers, and students while also indirectly drawing other members of the creative class who wish to access the university's resources.⁵⁸

Universities help to forge a regional cultural climate that is innovative and places a high value on diversity, and they act as important creative centers for regional development. Typically cited examples of this sort of phenomena include Stanford, a hub for Silicon Valley; Harvard and MIT, for Boston; the University of Texas's flagship campus, for Austin; and Duke University, the University of North Carolina, and North Carolina State University, for the research triangle area of North Carolina. According to Florida and his coauthors, although a university cannot itself deliver regional economic development – it must be tied to a region that "has

the will and capacity to transform and capitalize on what the university produces” – the university is an important part of the economic growth puzzle.⁵⁹

Most state merit programs are specifically designed to encourage residents to stay within the state for college. Nationally, 24 percent of freshmen enroll outside their home state. Migration patterns vary widely from state to state. Some smaller, more rural New England states (e.g., Vermont) have more out-migration than larger states with large population centers (e.g., California). Table 2 offers evidence of in- and out-of-state migration of students for college across the 11 states whose state grant-aid programs we next describe. These states (and the District of Columbia) vary widely in out-migration rates. We now present 11 state profiles that best capture the complexity of state experiments in grant-aid programs.

► Examples of State Grant-aid Programs

The following section describes several examples of state grant-aid programs.

Arkansas

Arkansas has implemented several scholarship programs, which exemplify a mix of merit- and need-based aid. The main college scholarship in Arkansas, the Academic Challenge Scholarship (ACS), was created by the Arkansas Legislature in 1990, and the first monies were given to college students in the fall of 1991. The policy goals for ACS are to:

- Increase access to higher education for a larger number of Arkansas residents.
- Improve high school academic preparation for college.

Table 2. Residence and Migration of Freshmen in Four-year Degree-Granting Institutions who Graduated from High School in the Previous 12 Months, Fall 2004

State	Students Enrolled in Institutions of Higher Education in the State	Student Residents Attending College in Home State	Ratio of Student Residents In-State to Student Residents in College				Net Gain/Loss
			In-State to Student Residents in College	Migration of Students Out of State for College	Migration of Students into State for College		
Arkansas	13,092	10,004	0.89	1,248	3,088	1,840	
District of Columbia	8,788	611	0.28	1,610	8,177	6,657	
Florida	58,981	46,498	0.85	7,915	12,483	4,568	
Georgia	33,607	25,616	0.77	7,686	7,991	306	
Indiana	36,068	26,126	0.86	4,243	9,942	5,699	
Nevada	6,925	5,697	0.79	1,502	1,228	-274	
New Jersey	21,383	18,311	0.42	25,259	3,072	-22,187	
New Mexico	6,706	5,605	0.78	1,601	1,101	-500	
Oklahoma	15,097	11,976	0.86	1,873	3,931	2,058	
South Carolina	19,211	13,378	0.85	2,302	5,833	3,531	
Tennessee	18,702	12,408	0.71	4,968	6,294	1,326	

Source: U.S. Department of Education, National Center for Education Statistics, 2004 Integrated Postsecondary Education Data System (IPEDS), Spring 2005.

- Improve the graduation and retention rates for college students.
- Increase economic development through a better-trained workforce.⁶⁰

The target population of ACS is Arkansas high school students who have college aspirations and who come from middle- and low-income families. Arkansas currently offers 8 percent of its grant aid without regard to student financial need.

The ACS has both academic-merit and financial-need eligibility requirements. Students must take four years of coursework in English and three years in science, math, and social studies, as well as two years of a foreign language. The state's academic achievement measure is an index of ACT scores and grade point average. With regard to financial-need eligibility, a family with one dependent child under age 24 must have an average adjusted gross income not exceeding \$60,000 for the two years directly preceding high school graduation.⁶¹ Finally, applicants must pledge that they are drug free and will remain so.

In 2004 the Arkansas Department of Higher Education's *Report on College Financial Assistance Programs* claimed that the ACS had a direct effect on closing the curriculum gap, lowering the number of high school students taking remedial courses, and encouraging participation in higher education. Since the inception of the program, Arkansas has witnessed a jump in the number of high school seniors who complete a college-preparatory core curriculum, from 40 to 78 percent. The percentage of high school seniors taking remedial courses in college has decreased from 60 to 50 percent; the number of high school students who have taken the ACT exam has increased by 25 percent; and the college-going rate has increased from 48 to 61 percent.⁶² Additionally, Arkansas

retained 89 percent of resident freshmen who had graduated from high school in the previous year and enrolled in four-year colleges and universities.⁶³ Since the Arkansas report is based on descriptive data, there may be other factors responsible for these effects, including federal and state reforms in the K-12 system or a general upward trend in college participation. The program's impact looks promising, but without rigorous empirical analyses, the evidence is inconclusive.

In its 2004 report, the department also examined the Arkansas Governor's Distinguished Scholarship (GDS), the major state merit-based scholarship. The Arkansas Legislature created the GDS in 1997, and the first funds awarded to students came in the 1997-98 academic year.⁶⁴ The program was implemented as a device to retain the state's "best and brightest" high school graduates and encourage their attendance in Arkansas colleges and universities. Within the program are two subscholarships: the Governor's Scholars Award (GS) and the Governor's Distinguished Scholarship (GDS). Both programs use only academic achievement as criteria for eligibility. For the GS, applicants must score at least 27 on the ACT or 1220 on the SAT or maintain a grade point average of 3.5. For the GDS, applicants must score at least 32 or above on the ACT or 1410 or above on the SAT and have a grade point average higher than 3.5 or have been selected as a National Merit finalist or a National Achievement Scholar.⁶⁵

In assessing the effectiveness of the GS and the GDS, the department investigated whether the state's high academic achievers were staying in the state for higher education in larger proportions than prior to the introduction of the program. In the 1996-97 academic year (the year before the GDS was implemented), according

to the Arkansas Department of Higher Education, 38 percent of Arkansas high school seniors who scored 32 or higher on the ACT exam enrolled in an Arkansas college or university, while from 1997 to 2003, 84 percent of this same population attended Arkansas colleges or universities. Arkansas kept an even higher percentage of these high-scoring students prior to 2001, when, as part of the GDS, the state paid full tuition, mandatory fees, and room and board at any in-state institution, public or private. But in 2002 Arkansas limited the GDS scholarship to \$10,000 per year and captured fewer high-scoring students.⁶⁶ With regard to the GDS program's outcomes, the department found that "clearly, the GDS has had the effect of convincing many more of the state's brightest students to seek their baccalaureate degree in their home state."⁶⁷ However, better economic prospects for graduates, a low cost of living, and a generally brighter state outlook may also have been contributing factors to this student population's choice of college.

District of Columbia

Before the fall of 2000, District of Columbia residents only had subsidized tuition at the University of District of Columbia, an institution that resembles a community college more than a university in both mission and curriculum. Sixty-four percent of District of Columbia residents enrolled in postsecondary institutions outside the district. In 1999 President Clinton signed the District of Columbia College Access Act, authorizing the Tuition Assistance Grant (TAG), which had the goal of offering district residents the same chance at subsidized higher education as that enjoyed by residents of other states.⁶⁸ The district offers 91 percent of its grant aid without regard to the student's financial need: much of this aid is assigned to the D.C. TAG Program, which has no merit or need requirement.⁶⁹

In 2000 the TAG Program paid the difference between tuition costs at public colleges in Maryland and Virginia (later expanded to other states) – up to \$10,000 per year, which is usually enough to cover the difference between resident and nonresident tuition costs. There is a lifetime cap of \$50,000 for each student under the TAG Program. TAG is made available to district residents without a bachelor's degree who have graduated from a public or private high school (graduating in or after 1998) and who are not in default on any student loans (if male, the applicant must register with the Selective Service).

The TAG Program was analyzed for its effectiveness in a rigorous empirical study, which found that it had changed students' college choices.⁷⁰ From the beginning the program was effective: the number of district resident students attending public institutions in Maryland and Virginia more than doubled. After TAG was expanded for use in other states, there were large increases in enrollments at colleges beyond Virginia and Maryland, especially in nonselective, four-year public colleges and universities in other mid-Atlantic states. The change in price was a main reason: for district residents TAG immediately lowered tuition costs of public two-year and four-year colleges – in Maryland by \$3,000 and in Virginia by \$6,200.⁷¹ Combined with a private-sector program which offers college and academic counseling to district students at public high schools, as well as college scholarships, TAG made a large impact on the numbers of District of Columbia citizens entering higher education. The number of first-time FAFSA applicants, first-year Pell Grants awarded, and D.C. freshmen reported by colleges and universities nationwide went up 15 percent or higher in each category from 1998-99 to 2001-02.⁷²

Florida

In 1980 the Florida Legislature created the Florida Undergraduate Scholars Fund. Its purpose, like many merit-based scholarships, was to keep Florida's highest-achieving students in the state for college.⁷³ Florida offers 61 percent of its grant aid without regard to the student's financial need.⁷⁴ In 1997 Florida followed its neighboring state, Georgia, in constructing a lottery-funded merit-based college scholarship initiative, naming it the Bright Futures Scholarship Program. In the 1997-98 academic year, Bright Futures was implemented, and the first students began to receive awards. The average award for the 1998-99 academic year was \$1,625. The Bright Futures Awards are divided among three subawards, dispersed according to academic achievement: the Florida Academic Scholars Award, for the state's highest achievers; the Florida Medallion Scholars Award, for excellent students whose achievement is less than that of Academic Scholars awardees; and the Florida Gold Seal Vocational Scholars Award, for strong

students who are not necessarily on track to attend a four-year institution or those who might pursue a vocational track (see Table 3 for eligibility requirements and award amounts).⁷⁵ There are no financial-need components to any of these awards.

According to the Florida Legislature, the Bright Futures Scholarship was "intended to encourage better student preparation and performance, help make college more affordable, and encourage more students to attend a Florida college."⁷⁶ In 1999 the now defunct Florida Postsecondary Planning Commission listed the main policy purposes of the Bright Future Scholarships: "to serve as an incentive for high school students to take rigorous courses and perform better academically; to direct lottery dollars to improve postsecondary education in a way that was readily visible to the public; and to improve access to postsecondary education."⁷⁷ Left unstated is the state's original goal of retaining high-achieving high school graduates in Florida for higher education.

Table 3. Eligibility Requirements and Award Amounts for Three Florida Bright Futures Scholarship Awards

Bright Futures Award	Minimum GPA	Minimum Standardized Test Scores	Award Level
Florida Academic Scholars Award	3.5	1270 SAT 28 ACT	100% of tuition and fees plus \$300/term
Florida Medallion Scholars Award	3.0	970 SAT 20 ACT	75% of tuition and fees
Florida Gold Seal Vocational Scholars Award	3.0	83 reading CPT* 83 writing CPT 72 math CPT or 440 SAT verbal 440 SAT math or 17 ACT English 18 ACT reading 19 ACT math	75% of tuition and fees

* College placement tests (CPTs) are typically taken by students preparing to enter community college to determine readiness and placement for college coursework.

In 2003 Florida's Office of Program Policy Analysis and Government Accountability (OPPAGA) surveyed Bright Futures recipients regarding financial-need information. It also surveyed the academic performances of Florida high school graduates between 1996-97 and 2000-01 and the opinions of high school guidance counselors.⁷⁸ OPPAGA reported that the Bright Futures Awards had improved affordability; stimulated high school graduates to improve college preparation; and improved college retention. In addition, those running the programs had discussed cost control options. OPPAGA tied the Bright Futures program to certain outcomes. They found that 61 percent of the class of 2001's high school graduates had enrolled directly in a Florida college, whereas in 1997 only 52 percent of the graduating high school class had done so. Also, Florida high school students were taking more college-preparatory courses and receiving higher grades in their general coursework (they were not improving their standardized test scores significantly, however). Furthermore, high numbers of minority students and at-risk students were enrolled in the Bright Futures curriculum and taking Advanced Placement, International Baccalaureate, honors, or dual-enrollment classes, and a higher percentage of minority high school graduates were attending college in Florida.

Researchers have noted that it is difficult to criticize a program that is "enormously popular."⁷⁹ But in the future – as Florida Lottery revenue remains constant and demand for Bright Futures Scholarships grows along with the state population – the program may be held more strictly accountable for performance. Much of the available evidence for the success of Bright Futures may confuse correlation with causation. Without rigorous empirical

analyses, Bright Futures' actual effects are unknown. For instance, these results might be explained by the initiation of (and positive media coverage surrounding) the Florida One initiative that instituted the Talented 20 policy, through which Florida guarantees admission to one of the 11 state universities to students in the top 20 percent of the state's high school graduating class; or they could have been influenced by the improved reputations of Florida colleges or by a college-aged population with stronger ties to the state. On this last point, Florida is retaining more students who were high scorers on the SAT and ACT, which, as the OPPAGA report states, is "important as it increases the likelihood that such students will stay in the state after college graduation, which aids Florida's economic development."⁸⁰ In 2004 Florida retained 85 percent of resident freshmen students who had graduated from high school in the previous year and enrolled in four-year colleges and universities.⁸¹

Georgia

The Georgia HOPE (Helping Outstanding Pupils Educationally) Scholarship spurred the growth of state merit-aid programs, which, as stated already, represent a growing proportion of state investments in financial aid.⁸² In 1991 Governor Zell Miller argued for the creation of a state lottery to fund educational programs and scholarships, and in 1992 Georgia voters approved a ballot measure authorizing a lottery. In June 1993 the first lottery ticket was sold, and in the fall 1993 semester, HOPE awarded its first scholarship. Currently, Georgia offers 97 percent of its grant aid without regard to the student's financial need.⁸³

At the program's outset, there was a \$100,000 family-income eligibility cap, which was removed in 1995, when HOPE became

the largest merit-only state grant program in the nation. The average award given out in the 2004-05 academic year was \$1,804. The scholarship covers tuition and fees and provides a \$300 per year book allowance at Georgia public colleges and universities. Students attending private colleges and universities may apply for a HOPE scholarship of \$3,000 per year and a tuition equalization grant of \$900 per year. In order to be eligible for a HOPE Scholarship, a student must have garnered a 3.0 grade point average in high school, must maintain a 3.0 grade point average in college, and must be a Georgia resident. Within the HOPE Scholarship Program is the HOPE Grant, which pays for nondegree programs offered by vocational and technical schools and community colleges.⁸⁴

The Georgia HOPE Program's policy goals are to "increase academic achievement, to keep our 'best and brightest' in Georgia, and to expand the educational opportunities beyond high school for all Georgians."⁸⁵ Targeted recipients are high school graduates who might be tempted to leave the state for college and high-achieving high school graduates. In 2004 Georgia retained 77 percent of resident freshmen students enrolled in four-year colleges and universities who had graduated from high school in the previous year.⁸⁶

The program's design was kept as simple as possible because, according to former University System of Georgia Chancellor Steven Portch:

You can't explain federal financial aid – I don't understand it and I've been in the field all these years. But I understand HOPE: You get a B in high school, you get a scholarship. Keep it in college you keep your scholarship.

It's so simple... that's why it's politically so attractive, because you've got to be able to describe something in a coffee shop. And this one you can.⁸⁷

Georgia has offered descriptive data on the HOPE program, marking milestones of scholarships and money awarded. Outside researchers have also conducted several studies on the program. One study that analyzed Integrated Postsecondary Education Data System (IPEDS) data found that in its first years, the HOPE Program resulted in expanded enrollments in Georgia colleges and reduced the numbers of Georgians leaving for colleges in other Southern states.⁸⁸ An examination of student residency and migration statistics revealed that from 1988 to 1997, HOPE cut the number of Georgia college students leaving the state for school by 560 per year.⁸⁹

Another study conducted by researchers was on the effects on HOPE enrollments in Southern states. Employing Census data (Current Population Surveys), the results showed Georgians 18 to 19 years of age to be 25 percent more likely to attend college following the inception of HOPE than before. The study, however, does not distinguish among types of institutions – for example, whether students are more likely to attend the public flagship institution, the University of Georgia, than a private, less selective institution, such as Mercer University. Also, results showed that HOPE had few positive effects on college enrollments for African American or lower-income students. With regard to college choice, HOPE moved students from two-year colleges into four-year institutions; the number of students attending two-year institutions fell during the first year HOPE was implemented and continued falling until 1999, when the

number edged up again, as contrasted with consistent growth in four-year enrollments. Also, HOPE seemingly helped to retain students in Georgia for college: data showed a small decrease from 1992 to 1998 in the number of Georgians enrolled in border-state colleges and significant drops in enrollments of Georgia freshmen at those border institutions that historically had lured the highest numbers of Georgians across state lines for college.⁹⁰

Finally, Georgia's flagship colleges and universities, such as the University of Georgia and the Georgia Institute of Technology, have witnessed a trend toward greater selectivity in admissions requirements since HOPE began. Research suggests that African American enrollments in both schools declined sharply, and that historically black colleges and universities in Georgia enrolled more students between 1993 and 1997 because of HOPE's effects on African American enrollments elsewhere.⁹¹

Indiana

In 1990 the Indiana General Assembly created the 21st Century Scholars Program, with a primary policy goal of reducing "the financial burden of higher education on low to moderate income Indiana students and their families."⁹² A unique feature of the program is that it offers both a college-scholarship and a college-guidance program, with the intent of reaching students who may lack college aspirations or family financial resources, mentoring, or guidance and providing them with support and a framework to facilitate college attendance. Following a tradition of linking state-aid to need, Indiana offers only 4 percent of its grant aid without regard for the student's financial need.⁹³ The program distributed its first funds in the 1990-91 school year to a first class of over 5,000 students. The

average scholarship awarded in the 1999-2000 academic year was \$1,350.

Students must be Indiana residents both at the time they apply and when they receive the scholarship; a scholarship applicant must be the child of a U.S. citizen or resident alien; and the student must enroll in the program in the 7th or 8th grade and then enroll in an Indiana college or university within two years of high school graduation. Also, an applicant's family income must fall within a certain range, depending on the size of the family, unless the applicant is a foster child or a ward of the court. Once accepted into the program, a change in the family's fortunes will not remove the student from the 21st Century Scholars Program.⁹⁴

Applicants are required to sign a Scholar's Pledge in order to be eligible for an award (the Arkansas Academic Challenge, adopted a year later, has a similar pledge requirement, and Oklahoma followed suit). A 21st Century Scholar must refrain from alcohol or drugs, not commit any crime, graduate from a high school in Indiana with at least a 2.0 grade point average, and apply for financial aid in a timely manner, using the FAFSA. Once enrolled, students may attend regional support programs (which resemble summer camps with a college focus), are made aware of mentoring programs, and are provided access to an academic and college counseling hotline.

In 2001 Indiana's Office of 21st Century Scholars performed a self-assessment that included findings from a survey of 501 21st Century Scholars in the 8th through 12th grades. Eighty-nine percent of students believed the program reduced their chances of dropping out; 82 percent reported the program helped them avoid substance abuse; and 74 percent reported the program

helped involve their parents in their education.⁹⁵

A rigorous empirical analysis found that the program had helped Indiana to make great strides in improving access to higher education among its population. For example, with regard to the percentage of high school graduates who moved directly on to college: in 1986 Indiana ranked 40th in the nation, and in 2002 it ranked ninth.⁹⁶ Also, scholarship recipients were more likely than nonrecipients to attend all types of colleges and universities. In 2004 Indiana retained 86 percent of resident freshmen students enrolled in four-year colleges and universities who had graduated from high school in the previous year.

New Jersey

One of New Jersey's only non-need-based scholarship awards is the Outstanding Scholar Recruitment Program (OSRP). OSRP currently provides \$13 million in awards, while New Jersey provides about \$203 million in grants based only on financial need. In 2004 New Jersey only retained 42 percent of resident freshmen who had graduated from high school in the previous year and enrolled in four-year colleges and universities.⁹⁷

OSRP began in fiscal year 1998 as a pilot program to increase enrollment and retention of high-achieving New Jersey high school graduates at state colleges and universities. In order to be eligible for an OSRP award, students must have a class rank in the top 15 percent and an SAT score from 1250 to 1600. These numbers are combined in an index that generates an award of from \$2,500 for lower academic achievement to \$7,500 for the highest academic achievement.⁹⁸

In 2004 the Institute for Higher Education Policy evaluated OSRP and its effectiveness in achieving its primary policy goal: the retention of high-achieving high school students in the state for postsecondary education. The institute also assessed other secondary issues, such as the effects of OSRP on the migration of New Jersey college students to other states. Controlling for the overall growth of high school and college enrollments, the institute found that the number of OSRP-eligible students at participating New Jersey institutions of higher education increased from 1997-98 to 2003-04. Furthermore, in 2004, when Rutgers University, New Jersey's flagship state university, asked students who received the OSRP award whether their OSRP award affected their decision to enroll at Rutgers, 82 percent of the respondents answered that the award was very important in their decision, and 16 percent said it was somewhat important (2,500 students were surveyed and over half responded).⁹⁹ Thus, the institute found OSRP was assisting in growing enrollments of high-achieving New Jersey high school graduates at New Jersey colleges and universities.¹⁰⁰

In addition, the Institute for Higher Education Policy sent a survey to assess high school students' knowledge of and interest in OSRP to high school guidance counselors in New Jersey. Eighteen percent of these counselors responded, and 26 percent had not heard of the OSRP awards; it is possible that an even greater proportion of the nonresponding counselors had no knowledge of the awards. This lack of knowledge is troubling in light of the fact the state higher education agency trains over 1,200 guidance counselors each year.¹⁰¹ Guidance counselors are a crucial source of information regarding financial aid;

any failure by counselors to provide this information undercuts the state's ability to reach all high school graduates.

Whether the merit-aid program in New Jersey has succeeded in helping the state retain more of its high school graduates is still somewhat unclear. According to the Institute for Higher Education Policy's overall evaluation of the OSRP program, the state loses many of its high school graduates to out-migration because of the state's relative wealth, compared to other states in the nation, and because its high school graduates have aspirations to explore the country outside of New Jersey, which is small and bounded by large metropolitan regions, such as New York City, Philadelphia, Baltimore, and the District of Columbia.¹⁰² Perhaps, however, New Jersey merely shares a trait common to many of its small neighboring states, in which travel across state borders is more common, even for purposes of participation in higher education. For example, in 2004 Maryland only retained 42 percent of its students; Delaware, only 55 percent; Connecticut, 53 percent; and Rhode Island, 52 percent.¹⁰³ The most effective merit-based scholarship imaginable might have little effect on such conditions.

New Mexico

New Mexico provided \$68 million in financial support to college students in the 2004-05 school year, \$58 million of which came in the form of state grants or scholarships (the other \$10 million included state work-study programs, loans, and graduate student scholarships). New Mexico offers 72 percent of its grant aid without regard to student's financial need.¹⁰⁴ Among the state grants are the Lottery Success Scholarship (LSS) Awards, which were authorized by the legislature in 1996 and from which funds were distributed

to students for the first time in the 1998-99 school year.

In the 2004-05 school year, nearly half (49 percent) of all New Mexico grant aid was given out in lottery awards, at an average award of \$1,803; 12 percent of all undergraduate students in New Mexico received awards. The program requires that applicants must maintain at least a 2.5 grade point average in their first college semester and thereafter and earn at least 12 college credits per semester.¹⁰⁵

The New Mexico Legislature created the Lottery Success Scholarship with the following goals in mind: first, that college choice not be determined by personal finances (thus, the scholarship is equivalent to tuition costs at New Mexico's public colleges); and second, that New Mexico students might achieve higher persistence and academic success in higher education (thus, the scholarships remained relatively easy to renew).¹⁰⁶ The program targets college students with above-average academic work, as measured by grade point average.

A feature of the Lottery Success Scholarship not commonly found in merit awards is that students only become eligible for them in their second semester of college if they have received a 2.5 grade point average or better in their first semester.¹⁰⁷ Another uncommon feature is the Lottery Success Scholarship's 2.5 minimum eligibility threshold, which is the lowest grade point average required of any merit-based scholarship in the country.¹⁰⁸

New Mexico has not performed extensive state assessments of the effectiveness of the Lottery Success Scholarships. At least one study, however, has analyzed the LSS program's outcomes related to its core

policy goal of making higher education more accessible to New Mexicans using neighboring states as controls to contrast with New Mexico's experiment with LSS. Researchers did not find that the lottery scholarships increased college access for New Mexicans, based on the tracking of freshmen enrollments of public high school graduates in Colorado, New Mexico, and Arizona from 1992 to 1998, the first year the lottery scholarships were distributed. As the researchers only considered data from the first year the lottery scholarships were awarded, no clear conclusions of the program's effects may be reached, however. No difference was found in the rate of increase in enrollment prior to the creation of the lottery scholarship, and no difference was found in the enrollment rates of the neighboring states and New Mexico.¹⁰⁹

The study shows that the lottery scholarships seemed to have encouraged in-state rather than out-of-state college attendance. Also, attendance at four-year institutions grew while community college enrollments plummeted in New Mexico, though similar shifts in enrollments did not occur in Colorado or Arizona, which do not have lottery scholarships akin to the New Mexico LSS program.¹¹⁰ Enrollment changes may be attributed to the removal of the tuition cost differential between four-year institutions and two-year colleges. In sum, in its first year, 1998, the LSS did not enhance access to higher education, but it did keep students in New Mexico for college, and within New Mexico it shuffled students from two-year institutions to four-year institutions.

Future directions for the lottery scholarships may be influenced by the 2004 *Report of the Governor's Task Force on Higher Education*, which recommended expanding eligibility to include: students returning to achieve a bachelor's degree after completing a

two-year degree; older students returning to higher education or attending for the first time; and students attending tribal community colleges.¹¹¹ Although these recommendations have not been implemented, these suggestions reveal problems with state financial aid policy: students who do not go directly to college following high school often lose out on many state grant opportunities.

Nevada

Nevada's Millennium Scholarship Program is a merit-based scholarship for Nevada college students that was originally announced during Governor Kenny Guinn's state of the state address in 1999. It was passed by the legislature that year, and began distributing funds (derived from Nevada's settlement with tobacco companies) in the fall of 2000. In order to be eligible for the Millennium Scholarship, a student had to graduate from a Nevada high school with a 3.0 grade point average or higher. The policy goals for the program were: to increase college-going among the Nevada population; to assist persistence in college; and to grow the number of Nevada resident students in state colleges and universities.¹¹² Nevada offers 75 percent of its grant aid without regard to the student's financial need.¹¹³ The Millennium Scholarship Program targets college-eligible Nevada students. In 2004 Nevada retained 79 percent of resident freshmen students who had graduated from high school in the 2003-04 school year and then enrolled in four-year colleges and universities.¹¹⁴

A recent study finds the Millennium Scholarship Program to be meeting its expressed purposes. The percentage of Nevada high school graduates enrolled as first-time, degree-seeking college students in the fall semester immediately following high school graduation jumped from 25 percent in 1998 to 33 percent in 2000, the

year the Millennium Scholarship took effect. This 8 percent increase is a significant leap, as growth for the two prior years was less than 1 percent per year.¹¹⁵ This achievement is cited as evidence that the Millennium Scholarship Program has had a positive impact on general college enrollments. Moreover, the ratio of resident Nevada college students to nonresident students has jumped from 1.45 to 1 in 1992, to 3.11 to 1 in 2002.¹¹⁶ However, there are other hypotheses that may explain these changes: for instance, Nevada's population might be growing fast enough to accommodate both great growth in overall enrollments and a greater proportion of Nevada residents staying in Nevada for college.

Oklahoma

In recent years, Oklahoma has placed a high priority on raising college enrollments, and its programs have garnered it attention and praise. For example, in 2003 the Pathways to College Network named Oklahoma's statewide effort as the best overall social-marketing campaign for college access.¹¹⁷

Oklahoma has several financial aid programs, but its primary one is the Oklahoma's Promise-Oklahoma Higher Learning Access Program (OHLAP). This scholarship program began in 1992, and the first scholarship funds were released to 1996 high school graduates from low-income families.¹¹⁸ Infusion of federal GEAR-UP funding in 1999 helped the program catch hold in schools and the public imagination, and enrollments skyrocketed 170 percent.¹¹⁹ In the 1999 *Brain Gain 2010 Report*, the Oklahoma Regents made OHLAP a centerpiece, planning to "greatly expand OHLAP's eligibility requirements, increase its recruitment efforts, and target students at younger ages – elementary and middle school."¹²⁰

Today, Oklahoma's Promise-OHLAP Scholarships are offered to Oklahoma eighth, ninth, and 10th graders whose family income does not exceed \$50,000. Scholarships cover all or nearly all college tuition expenses for students completing program requirements while in high school. In order to increase the number of low-income students completing college degrees, in 1999 Oklahoma used its GEAR-UP grant to supplement Oklahoma's Promise-OHLAP Scholarships.

Oklahoma's Promise-OHLAP Scholarships may be used at accredited public and private colleges and universities and for certain courses offered at public technology centers. The program requires enrollees to:

- ▶ Complete a 17-course core curriculum in high school.
- ▶ Maintain a 2.5 grade point average both in core and in all high school coursework.
- ▶ Attend classes regularly.
- ▶ Refrain from substance abuse and criminal or delinquent acts.

Students must attend college within three years of high school graduation. They must maintain a 1.7 grade point average following 30 college credits and a 2.0 cumulative grade point average thereafter.¹²¹

The state collects demographic data on Oklahoma's Promise-OHLAP Scholarship recipients, which allows for the comparison of program impacts across various demographic groups (see Table 4). First, while the female to male ratio among Oklahoma high school seniors is nearly equal, women have a 10 percent higher rate of achieving Oklahoma's Promise-OHLAP Scholarships than men. Across most ethnic and racial groups, scholarship recipients are on relative parity (+/- 3 percent) with their percentage in the overall population, except

for American Indians who attain scholarships at approximately 6 percent lower rates. Finally, while there is rough parity in the representation of high school populations among the five most populous Oklahoma counties and the other 72 counties, nearly two-thirds of all high school graduates eligible for scholarships come from the 72 less populous counties.

Oklahoma's Promise-OHLAP Scholarship recipients outperform their peers in several important areas. Eighty-two percent of recipients went immediately to college following high school graduation, compared to 59 percent of all Oklahoma high school graduates in 2004. Since 1998, Oklahoma's Promise-OHLAP Scholarship recipients have consistently required less remedial coursework in college than Oklahoma high school graduates on average, although this gap has narrowed in recent years. Moreover,

87 percent of scholarship recipients attained a grade point average of 2.0 or better in their college freshman year, while 72 percent of all college freshmen received grade point averages of 2.0 or better.¹²²

Oklahoma Governor Brad Henry has affirmed the state's commitment to the Oklahoma's Promise-OHLAP Scholarship, but he has also echoed the anxieties of other states' leaders in calling for stronger public funding guarantees for a scholarship program whose costs are growing rapidly, as are costs in other states' similar programs. The number of scholarship recipients has grown sixfold over the last five years to 12,089 students, while the costs of the program have increased almost ninefold and were at \$25.6 million in 2005-06. By 2008-09, program costs are projected to more than double to \$58 million, while the number of recipients is projected to grow to nearly 20,000.

Table 4. 2006 Oklahoma's Promise-OHLAP High School Graduates

	Percent of Promise-Eligible Students: High School Class of 2006	Percent of All Oklahoma High School Seniors
Gender		
Male	60.6	49.8
Female	39.4	50.2
Race/Ethnicity		
Black/African American	7.8	9.6
American Indian/ Alaskan Native	12.3	18.1
Asian	2.9	2.0
Hispanic/Latino	5.6	5.7
White	67.5	64.6
Not Specified	3.9	N/A
Geographic Distribution		
Five most populous counties (Oklahoma, Tulsa, Cleveland, Canadian, Comanche counties)	34.3	47.0
72 remaining counties	65.7	53.0

Source: Oklahoma State Regents for Higher Education (OSRHE), *Oklahoma's Promise - Oklahoma Higher Learning Access Program 2005-06 Year-End Report* (Oklahoma City, OK: OSRHE, 2006).

In May 2007 the Oklahoma Legislature sent Governor Henry a bill that would guarantee annual funding for the Oklahoma's Promise-OHLAP Scholarship. The Oklahoma State Regents have requested a dedicated funding source for the program for several years. This year, Governor Henry made the dedicated funding source a priority item in his executive budget proposals and highlighted the need in his state of the state address. Legislation to enact the funding source was introduced by the senate president pro tempore. The legislation sent to the governor would ensure that the program receives first priority on allocations from the state's general revenue fund, the primary source of state appropriations.

The available trend data shows that the Oklahoma's Promise-OHLAP Scholarship is a success. Despite the lack of rigorous empirical analyses, demographic data and

tracking of recipients portends favorably for future verification of the program's positive impacts.

South Carolina

Historically, South Carolina has not made a strong commitment to need-based grants for higher education.¹²³ The state offers 81 percent of its grant aid without regard to the student's financial need.¹²⁴ In 2004 South Carolina retained 85 percent of resident freshmen who had graduated from high school in the previous year and enrolled in four-year colleges and universities.¹²⁵

Sharing nearly \$200 million in non-need-based, merit college grants are the Palmetto Fellows Scholarship, LIFE Scholarship, South Carolina HOPE Scholarship Program, and the Lottery Tuition Assistance Program. Each program's eligibility requirements and award amounts are listed in Table 5.

The Palmetto Fellows Scholarship was created by the South Carolina Legislature in 1988 with the express goal of recognizing the "best and brightest" high school students in the state. A secondary goal, according to the commission, was "to encourage the most academically talented students to attend college in South Carolina." The first year the Palmetto was offered, the 1988-89 academic year, only 45 students received it; funding was split equally between the state and the student's college or university. The program has expanded, aided by funds from the South Carolina state lottery, but it still receives 78 percent of its monies from the state general fund. More importantly, the Palmetto shifted from being a scarce resource, dependent on the availability of funds, to an ironclad promise to all eligible students, similar to an entitlement such as Social Security.¹²⁶

Table 5. South Carolina Merit Awards, Eligibility Requirements, and Amounts

South Carolina Merit-Based Scholarship	Minimum High School GPA/Class Rank	Minimum Standardized Test Scores	Award Level
Palmetto Fellows Scholarship	<ul style="list-style-type: none"> • 3.5, rank in top 6% of high school class, or • 4.0 	<ul style="list-style-type: none"> • 1200 SAT/ 27 ACT, or • 1400 SAT/ 32 ACT with a 4.0 GPA 	Cost of attendance up to \$6,700
LIFE Scholarship Program	3.0, rank in top 30% of high school class	1100 SAT or 24 ACT	Cost of attendance up to \$4,700 plus \$300 book allowance at 4-year institutions
South Carolina HOPE Scholarship	3.0	N/A	Cost of attendance up to \$2,650 plus \$300 book allowance
Lottery Tuition Assistance Grant (exclusive of above scholarships)	N/A (must maintain minimum 2.0 after 24 hours of college courses)	N/A	Changes each year: \$996 for fall 2006 semester

Source: South Carolina Commission on Higher Education, *Summary Report on South Carolina Scholarships and Grants, 1988-2005* (Columbia, SC: South Carolina Commission on Higher Education, 2006).

In the *Summary Report of South Carolina Scholarships and Grants, 1988-2005*, the South Carolina Commission on Higher Education assessed whether the original and secondary intents of the Palmetto were still “meaningful.” With regard to the primary goal, the commission found it had been met through the use of stringent academic criteria. Regarding the secondary goal, the commission found that it was being met through the funding of generous scholarships: only 18 percent of eligible applicants were declining the award in order to attend elite institutions such as Harvard, Duke, Johns Hopkins, the Massachusetts Institute of Technology, Princeton, and Yale. The commission concluded that the Palmetto Scholarship was achieving its intended goals because 82 percent of Palmetto-eligible students were accepting the awards and attending college in South Carolina. Also, over 90 percent of Palmetto Scholars retained their scholarships once in college, which the commission felt was strong evidence of Palmetto Scholars’ persistence and academic success. The commission also examined Palmetto-scholarship recipients’ retention rates, documented which institutions had the highest retention rates, and contrasted this data with that for all college freshmen.¹²⁷ No changes in Palmetto eligibility were recommended, given the high retention rates.¹²⁸

The commission also examined whether the original intent of the Legislative Incentive for Future Excellence (LIFE) Scholarship was still meaningful. The three purposes of the LIFE awards were: to increase access to higher education; to improve the employability of South Carolina students; and to improve college preparation of high school students and graduates. Regarding access, the commission found parallels between the growth of enrollments of first-time freshmen (20,645 in 1998 to 25,546 in 2004) and the

percentage of freshmen receiving the LIFE award (28 percent in 1998 to 41 percent in 2004).¹²⁹ However, as the commission relied on descriptive data, we want to point out that there may be other possible reasons for growth in South Carolina college enrollments, including a general increase in national college enrollments in these years, the availability of federal tax credits for higher education, and marketing efforts encouraging college attendance.

The South Carolina HOPE Scholarship offers financial aid for high-achieving high school graduates who are not eligible to apply for the Palmetto or LIFE awards. The commission offers the HOPE Program as a means of meeting unmet financial need and improving the chances that students with high financial need will graduate from college. In spite of a lack of rigorous analyses, the commission believes HOPE is fulfilling its original intent.¹³⁰

Finally, the Lottery Tuition Assistance Program’s purpose is to provide financial assistance to students attending two-year colleges. A major part of its purpose is assisting nontraditional students, who represent many of South Carolina’s two-year college attendees.

Based on available data, the South Carolina Commission on Higher Education believes that all of its merit-based grant programs are meeting their original purposes. However, hard empirical evidence and analyses tied to access and equity have not been conducted (for example, an assessment of the Palmetto’s impact on the proportion of African American recipients compared to their proportion in the general population).

Tennessee

The Tennessee Education Lottery Scholarship was created by the Tennessee Legislature

in 2003, and in the fall 2004 semester, the first students received scholarships.¹³¹ The average award in 2004 was \$1,466.¹³² Tennessee offers 5 percent of its grant aid without regard to the student's financial need.¹³³ The Tennessee Scholarships are broken into five different awards, each with its own eligibility criteria; they are summarized in Table 6.¹³⁴

The Tennessee Lottery Scholarships were intended to achieve several policy goals: first, to increase college access through financial assistance; second, to improve high school academic achievement; third, to retain the best and brightest in Tennessee; and fourth, to stimulate economic and community development through workforce training.¹³⁵ The program targets high-achieving high school students.¹³⁶ Tennessee's Education Lottery Scholarship Program represents an approach to state scholarships that provides both merit awards and proportionally larger scholarship investments in students with demonstrated financial need.¹³⁷

As referenced in Table 6, the Education Lottery Scholarships include a base Tennessee HOPE Award, an exceptional merit supplement (General Assembly Merit Scholarship), and a financial-need supplement (Need Supplement Award).¹³⁸ The majority (57 percent) of scholarship recipients were awarded the base HOPE Scholarships, and one-third of HOPE awardees also received a supplement through academic merit or financial need.¹³⁹

Because this program is very new, little research has been done tracking the effects of lottery scholarships on the choice of college among award recipients. The Tennessee Higher Education Commission argues that the program has been effective at increasing access to higher education, citing as evidence that the fall 2004 freshman class was the largest in the history of Tennessee higher education, though the size of state high school graduating classes were relatively constant from 2000 to 2003.¹⁴⁰

In 2005 the Tennessee Higher Education Commission conducted an opinion poll regarding higher education and the Tennessee Education Lottery Scholarship Program. The Social Science Research Institute interviewed 1,051 randomly selected Tennesseans on the telephone (the cooperation rate was 30 percent; the margin of error was ± 3 percent).¹⁴¹ Tennesseans, according to this opinion poll, have a strong belief in the ability of scholarships to improve college access (a belief that is not always supported in higher education research). For example, 87 percent of Tennesseans agreed with the statement, "Lottery scholarships will result in more

Table 6. Tennessee Lottery Education Scholarships: Merit- and Need-based Eligibility Requirements

Award Requirements	HOPE (Base)	General Assembly Merit Scholarship	HOPE w/Need Supplement	HOPE ACCESS Award	Wilder-Naifeh Technical Skills Grant
Amount (4 years)	\$3,000	\$4,000	\$4,000	\$2,000	N/A
Amount (2 years)	\$1,500	\$2,500	\$2,500	\$1,250	\$1,250
High School GPA	3.00	3.75	3.00	2.75	N/A
ACT	or 19	and 29	or 19	and 18	N/A
Adjusted Family Income	N/A	N/A	\$36,000 or less	\$36,000 or less	N/A

Source: Brian Noland, "Overview of Fall 2004 Recipients of the Tennessee Education Lottery Scholarship Program," paper presented at the Tennessee Higher Education quarterly meeting, 2005.

students going to college who could not otherwise afford to go," and 85 percent of Tennesseans agreed that "lottery scholarships will lead to more students going to college whose parents did not go to college."¹⁴²

Tennessee retained 71 percent of resident freshmen students who had graduated from high school in the previous 2003-04 school year and enrolled in four-year colleges and universities.¹⁴³ However, this statistic was gathered in the first year of this program, and so may not reflect great influences on student choice or college-going generally.

Cross-state Comparisons

Table 7 presents a summary of the state programs just described, the percentage of aid devoted to merit only, and programs' impacts, based on varying kinds of evidence. Clearly, states vary widely in terms of the proportion of aid that is allocated on merit only. Georgia (97 percent), South Carolina (81 percent), and New Mexico (72 percent) offer very high proportions of their aid in the form of merit, while Indiana (4 percent), Tennessee (5 percent), and New Jersey (8 percent) offer very low proportions of their aid based on merit.

► Implications for States Considering Grand-aid Programs

The history of financial aid has been marked by efforts to balance merit- and need-based aid through the opportunities created by government, institutions, and philanthropists for deserving "scholarship students" who otherwise would not have been able to attend college. Aid that is only need based began with a substantial policy investment through the Higher Education Act of 1965

and President Lyndon Johnson's promise that it was the "obligation" of U.S. leaders to "provide, permit and assist every child" to pursue the maximum amount of education he or she desired. States made a similar ideological promise, spurred largely by the 1972 federal incentives for establishing state need-based aid programs. There exists good empirical evidence that those programs are largely responsible for massive growth in higher education enrollments and huge increases in the enrollments of low-income and other underrepresented students. Yet we have evidence that the gaps in college participation and especially completion that existed half a century ago still exist today between low-income and higher-income students, as well as between White and underrepresented minority students.¹⁴⁴ Institutional, state, and federal policies to provide relief to middle-class college students, to improve performance and accountability, and to mitigate the increasing costs of college have led to tax credits, increased reliance on loans, growing amounts of unmet need in student-aid packages, and the adoption of increasing numbers of state and institutional merit-aid programs. As a society we lack a comprehensive student-aid policy that attempts to provide a threshold of financial aid that truly enables poor students to afford college while providing the appropriate proportion of aid that encourages and rewards meritorious performance.

Clearly, states have different policy goals and different balances between merit and need-based grants in their student aid programs. Some states have been concerned with critical economic-development imperatives and the need to retain their most talented students, who hold the key to future state vitality. Other states have been mindful of the need for large numbers of college-

Table 7. Characteristics of Selected State Grant-aid Programs

State Grant Program, Year Began Disbursing Funds	Percent of State Grants not Based on Financial Need	Program's Known Impacts
Arkansas Academic Challenge Scholarship (1991)	16%	The Arkansas Department of Higher Education believes (but has no hard evidence) that the ACS has had positive effect on closing the high school curriculum gap, lowering the number of students taking remedial courses, and improving the state college-going rate.
District of Columbia Tuition Assistance Grant (2000)	0%	The D.C. Tuition Assistance Grant (TAG) has had a demonstrable impact on students' college choices: D.C. students are attending nonselective, four-year public colleges and universities in other mid-Atlantic states at much higher rates than before TAG.
Florida Bright Futures Scholarship Program (1997)	61%	Using descriptive data: After Bright Futures, higher numbers of residents stayed in-state for college; high school students took more college-preparatory courses; and Florida retained more students who were high scorers on the SAT and ACT.
Georgia HOPE Program (1993)	97%	Georgia has mostly offered descriptive data of the HOPE Program. HOPE raised college enrollments of Georgia's 18- to 19-year-olds but did not improve enrollment rates among African American or low-income students. HOPE moved students from two-year colleges into four-year institutions, and Georgians were more likely to stay in-state for college after HOPE. In HOPE's first years, enrollments grew in Georgia colleges and universities (mostly among four-year institutions).
Indiana 21 st Century Scholars Program (1990)	4%	Evidence shows that the program is improving access to higher education. Recipients were more likely than nonrecipients to attend all types of colleges and universities.
Nevada Millennium Scholarship Program (2000)	75%	There is some evidence that a higher percentage of high school graduates are attending college following the inception of the Millennium Scholarship.
New Jersey Outstanding Scholars Recruitment Program (1998)	8%	The number of OSRP-eligible students (high academic achievers) at participating New Jersey institutions of higher education has increased steadily following creation of program. Public institutions showed clear growth in OSRP enrollments; private colleges showed a mix of growth and losses, depending on the year.
New Mexico Lottery Success Scholarship (1998)	72%	The program encouraged in-state rather than out-of-state college attendance; also encouraged higher attendance at four-year Institutions and caused attendance at community colleges to drop.
Oklahoma Promise Scholarship – Oklahoma Higher Learning Access Program (OHLAP) (1992)	22%	Using descriptive trend data, Oklahoma attributes rising college enrollments enrollments, lower remediation rates, and higher graduation rates to the Promise Scholarship.
South Carolina Palmetto Fellows Scholarship (1988)	81%	A high percentage of eligible students are accepting awards, staying in South Carolina for college. Most are retaining scholarships once in college. Commission on Higher Education speculates that LIFE recipients are key to growth in college enrollments.
South Carolina LIFE Program (1998)		
South Carolina HOPE Program (2002)		Program is believed to provide access to higher education to students who would not have gone to college otherwise, encouraging students to attend a four-year college rather than two-year college, according to the opinions of state financial aid officials.
South Carolina Lottery Tuition Assistance Program (2002)		More than a third of recipients are over 25, suggesting that the program is assisting older, nontraditional students.
Tennessee Education Lottery Scholarship (2004)	5%	Tennessee believes access to higher education is improving, citing increases in enrollments at the University of Tennessee after implementation of program. No evidence directly linking scholarships to increase in college-going. Program is very new.

Sources: Information on D.C. from Kane (2004). Information on Georgia from Dynarski (2000) and, on the state's enrollment increase, from Cornwell and Mustard (2005). Information on Indiana from St. John, Musoba, Simmons, and Chung (2002). Information on Nevada from Ackerman, Young, and Young (2005). Information on New Mexico from Binder and Ganderton with Hutchens (2002). See references for full citations.

educated workers, who will be the backbone of future state economic development.

States have acted on such policy issues, establishing programs to meet such goals, but many have limited evidence on program effectiveness. The Indiana and Georgia programs have been studied the most and offer the most rigorous evidence of those programs' impacts. Most other states have descriptive, noncausal evidence that may overattribute program impacts. In an era of increasing accountability, of rising standards for acceptable proof of state and federal money well spent (including an emerging effort to establish controlled experimental studies as the gold standard of evidence), better evidence is needed to determine program effectiveness and to determine the extent to which the policy goals of higher educational achievement and wider educational access are still unmet.

Researchers who have studied merit-only programs cite evidence that they are disproportionately awarded to students who will attend college regardless of available public assistance; that they provide relief from rising college costs to middle-class voters; and that they do little to lessen the college-attendance and completion disparities between poor and higher-income students.¹⁴⁵ Need-based aid programs have demonstrable and positive impacts on college access but not necessarily on educational attainment for poor and underrepresented minority students.

For states that are assessing student-aid programs or attempting to determine if they should adopt a grant-aid program, we offer some lessons learned from the experiences of the states described here. First, each state should think carefully about its ratio of need-based to merit-based aid and about its policy goals. Each of the different type of state

grant-aid programs discussed have specific policy goals, and many are accomplishing what the state set out to do. To ensure it is in fact setting deliberate, thoughtful policy goals and that it implements a successful program, each state should ask how much of its funds it wants to direct to non-needy populations, how quickly it wants to move in new policy directions, and whether the changes it makes will in fact help it meet its goals.

A second consideration would be to think about better segmenting the income groups who can participate in merit programs by instituting income caps. Specifically, targeting low- and middle-income families and their students, particularly those who may choose state institutions, as Indiana and Oklahoma do, may provide better returns on state investments than funding upper-income students who would be going to college anyway and may also choose elite, private colleges.

A third consideration would be to increase funding for need-based aid, fund the poorest students first, and adequately fund their aid packages so that they enroll and persist until graduation.

We also offer several cautions based on the available evidence from state grant-aid programs. One lesson from existing evidence is that some state merit programs funded through lotteries have seen costs escalate as the "take rate" of students participating increases over time. States could consider starting the programs at smaller levels and tracking their progress and implications before "going to scale." Moreover, states may want to track the evidence on lottery revenues and any potential negative impacts from new state lotteries initiated by neighboring states.

Indiana's and Oklahoma's experience suggests that grants that are marketed and communicated to students in high school add to a program's effectiveness. The key here is the information-dissemination campaign. New Jersey's experience with its counselors, who lacked knowledge of the state's aid programs, was not positive (and extant research on counselor availability for college counseling and knowledge of financial aid shows that counselors have no training in financial aid).¹⁴⁶ If counselors are to be part of the information dissemination and marketing plan, states must know how much time counselors have for the college-preparation and advising task; what professional development for counselors can be taken into account; and whether principals allow counselors to go off site for professional development to receive training on financial aid and state grant-aid programs, which is not common in most states.¹⁴⁷

Finally, states must be willing to commit resources to conducting assessments of their grant-aid programs. Without adequate evidence of program effectiveness, states are spending money without knowing the actual impacts of programs. The review of the assessments of state grant-aid programs' impact and effectiveness reveals that many states relied on trend data, descriptive data, or correlational studies. While this is often all that is available and is generally very informative, we encourage states to conduct rigorous empirical analyses when possible. The few empirically rigorous studies that have been conducted used advanced, inferential modeling that allowed the researchers to statistically control for a host of factors potentially affecting growth in statewide college-going rates. These studies' research designs also employed control, comparison, or reference groups as ways of further testing the programs' impacts. For example, work on the Indiana 21st Century

Scholars Program isolated relative changes in the college-participation rates of program participants versus nonparticipants through a comparative analysis that utilized national data. Another study assessed the relative success of Georgia's HOPE program by utilizing nearby states as a control group. Similarly, other research assessed the District of Columbia's Tuition Assistance Grant Program through a cross-state comparison. Based upon the existing research and evidence, state-level goals may be better achieved through state financial aid policies that are tied to evidence-based models.

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