PROMOTING

ECONOMIC MOBILITY

BY INCREASING

POSTSECONDARY EDUCATION

BY RON HASKINS, HARRY HOLZER AND ROBERT LERMAN

ECONOMIC MOBILITY PROJECT
An Initiative of The Pew Charitable Trusts



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ECONOMIC MOBILITY PROJECT
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FOREWORD

The Economic Mobility Project has assembled and produced a robust fact base on the health and status of the American Dream. We have found that while many Americans experience real income growth, the magnitude of their movement up the income ladder is limited. Nearly two-thirds of Americans make more than their parents in absolute dollars, but half of them remain on the same rung of the income ladder. This is particularly true for those at the bottom of the income distribution: 80 percent of children born to parents in the bottom quintile make more than their parents in real dollars, but at the same time, 42 percent remain on the bottom rung of the income ladder.

The project has set out to explain why some people move up the income ladder while others do not, and why still others fall down the income ladder. Our research has found that a series of factors influence one's path to mobility. Education in particular has risen to the top of that list, along with savings and family background.

The project is focusing on developing a nonpartisan policy roadmap to enhance economic mobility and opportunity for all Americans. This report is the first of many papers that will more closely explore how policymakers can address some of the challenges identified in the project's data.

In earlier project work Ron Haskins (one of the lead authors of this paper) found that adult children are more likely to surpass their parents' income in absolute terms and to reach the top income quintile if they have a college degree. In fact, attaining a college degree quadruples the likelihood that a child born to parents on the bottom rung of the income ladder will make it to the top.

This reality is not lost on the American people. Over 80 percent of respondents in a 2009 poll conducted for the project said that having a good education is essential or very important to experiencing economic mobility. In fact, more than half (55 percent) said that getting a college degree almost perfectly describes their definition of the American Dream.

The powerful impact postsecondary education has on the economic mobility of both individuals and their children is clear. Education, postsecondary education in particular, is one of the most effective tools our nation has for promoting upward mobility. However, we may not have achieved equal opportunity in this regard. Only one-third of children from families in the bottom income quintile

FOREWORD

enroll in college, and of those, only a portion graduate. At a time when economic returns to education have never been higher, it is important that we focus our attention on boosting college enrollment and completion, particularly for the most disadvantaged children.

This report highlights and identifies the factors that are essential to boosting college enrollment and graduation rates of low-income students and lays out a plan to help enhance economic mobility particularly for those students. While comprehensive, this report is not intended to capture all of the possible policy solutions available to increase college-going and completion. Rather, in the collaborative spirit of our project, it serves to inform the discussion and spark a productive debate on the ways our nation can better promote upward mobility—now, and for generations to come.

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PROMOTING

ECONOMIC MOBILITY

BY INCREASING

POSTSECONDARY EDUCATION

The facts are clear: a college education strongly affects whether Americans can make the climb up the income ladder. Data covering the last four decades show that adults who have degrees from two-year or four-year colleges have far higher family incomes than do adults who have only a high school degree or are high school dropouts. Further, income has grown steadily over time for those with college degrees while remaining stagnant or declining for those with a high school education or less. Previous Economic Mobility Project findings showed that adult children from poor and low-income families who earn a college degree are much more likely to move up the income ladder past peers in their own generation than are those without a degree. Adult children from families in the bottom fifth of the income distribution, for example, are four times as likely to reach the top fifth if they achieve a four-year college degree.

Despite the evidence that poor and low-income children benefit enormously when they attain a college education, they are nonetheless less likely to enroll in either two- or four-year colleges, and less likely to complete a degree once they have enrolled. Although the difference in degree completion can be attributed, in part, to lower levels of academic preparation, even those poor and low-income children with the same level of preparation are significantly less likely to attend and complete college than are their higher-income peers. A body of evidence suggests this is partly because the costs of college attendance put greater pressure on the limited resources of poor families, and partly because these students lack information about colleges and student aid as well as social and scholarly supports while attending college.

Thus, improving the equality of educational opportunity—a traditional American value—is one key to promoting economic mobility for disadvantaged students. The federal government has long been involved in promoting postsecondary education, especially since the enactment of the G.I. Bill near the end of World War II. The federal arsenal to promote educational opportunity includes grants, loans, and tax breaks. In the 2007–2008 school year, all levels of government and the private sector spent an impressive $162.5 billion on student aid, much of it based on need and a majority of the support provided by the federal government. However, current expenditures on postsecondary education are not as effective as they could be, nor are they necessarily targeted at those students most in need of support. To promote equality of educational and economic mobility, this report offers recommendations to increase the college enrollment and graduation rates of poor and low-income students. Our recommendations include the following:

Improve Students' K-12 Achievement and Preparation

- Increase the quality and coverage of preschool programs for poor children
- Establish a culture of college-going in schools
- Improve academic preparation for college coursework
- Build longitudinal data systems in states to track academic progress from preschool through college

Provide Students with Effective Guidance in Selecting and Paying for College

- Improve college and financial aid counseling in high schools
- Simplify the application for federal aid and provide early notification to families
- Reform the Pell grant by providing the maximum benefit to families under 150 percent of poverty and increasing the maximum grant to over $5,000
- Terminate several redundant federal grant programs
- Provide stipends for older students
- Expand the Income-Based Repayment system
- Reform state financing of postsecondary education by providing 25 percent of basic support to colleges and universities in the form of vouchers for low-income students; create a $500 million federal pot to match state voucher programs

Help Students Persevere in College and Achieve a Degree

- Provide federal incentive grants encouraging colleges and universities to mount innovative programs to help disadvantaged students stay in college

Clarify the Goals of Federal Policy and Research

- Make college enrollment and graduation rates of students from low-income families a top priority of federal education policy and research

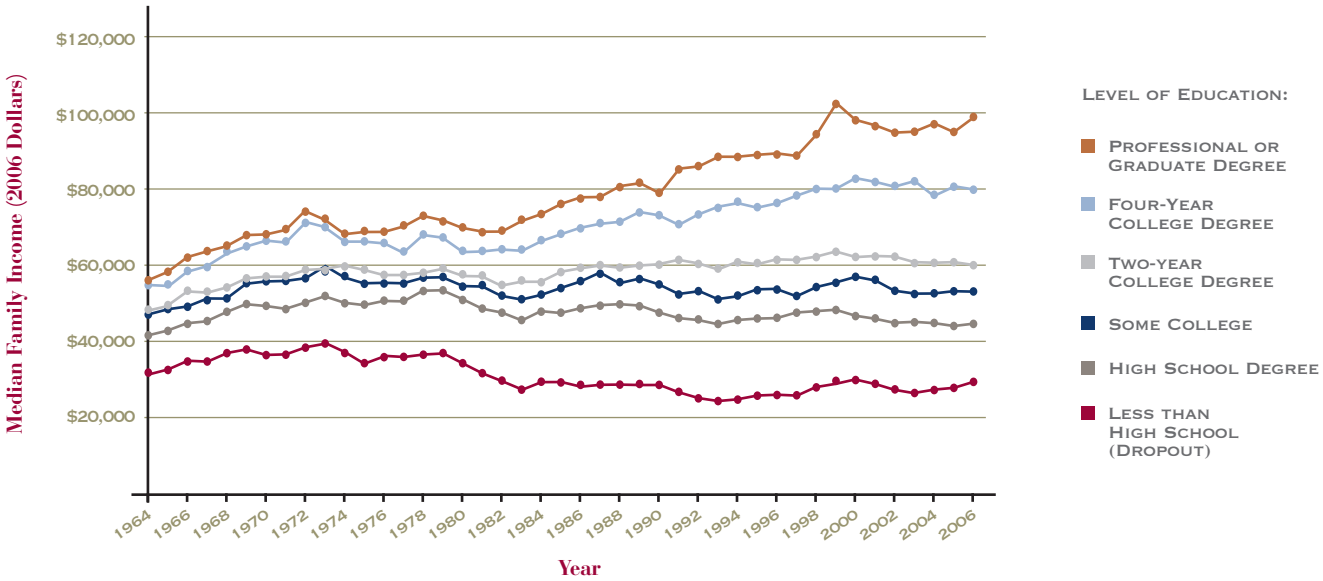
PROMOTING ECONOMIC MOBILITY BY INCREASING POSTSECONDARY EDUCATION

WOULD POSTSECONDARY EDUCATION BOOST ECONOMIC MOBILITY?

College pays off. Over the past four decades, the median family income of adults ages 30 to 39 increased much more rapidly among those with college degrees or advanced degrees than among those who attained some college or less.[1] The income difference between those with a four-year college degree and those who failed to finish high school was $50,000 by 2006. Similarly, the trends in family income show that those with a college degree or an advanced degree have enjoyed more than four decades of growth—by 46 percent in the former case and by 76 percent in the latter. By contrast, the income of those with some college increased by only 13 percent and of those with a high school degree by 7 percent. The income of high school dropouts

FIGURE 1

Median Family Income of Adults Ages 30-39 with Various Levels of Educational Achievement, 1964-2006



Note: All men and women ages 30-39, including those with no family income, are included in these estimates.
Source: Brookings tabulations of data from the Annual Social and Economic Supplement to the CPS, 1965–2006.

actually declined by 6 percent. Figure 1 suggests that unless something is done to boost the number of young people earning postsecondary credentials, millions of Americans will continue to be limited in their economic mobility.

RETURNS TO EDUCATION

The impressive returns to education shown in Figure 1 are sometimes questioned because people who complete more education differ in many ways from those with less education. People with more education, on average, have higher intellectual skills, have parents who have more education and more income, have lived in better neighborhoods and have attended better schools than people with less education.[2] Ignoring all these differences and attributing the entire income effect to education might be a mistake. To assess these sources of bias and their impact on estimates of returns to schooling, Ashenfelter and his colleagues examined the results from 27 empirical studies conducted in the United States and abroad.[3] They found that controlling for various sources of bias did reduce the rate of return to education, but the returns nonetheless remained strong. Their best estimate was that the rate of return controlling for bias was on the order of 6 to 9 percent.[4] This is a sizable rate of return and shows that in modern economies education generates real economic advantages, even when other differences between those with more and those with less education are controlled.[5]

Barbara Wolfe and Bob Haveman pushed the analysis of returns to education far beyond the private economic returns measured in most studies.[6] Besides economic returns, they identify a total of 15 outcomes that are important to individuals or society for which there is evidence of an educational impact. These outcomes include empirical evidence of associations between more education and more productive children, healthier children, healthier adults, less divorce, more charitable giving, more savings, and lower rates of crime. After surveying the studies of all 15 non-economic outcomes, Wolfe and Haveman estimate that the rate of return to schooling is perhaps twice the rate estimated by Ashenfelter and his colleagues based only on economic returns. If true, this rate of about 15 percent would make education one of the best investments individuals could undertake. Indeed, this rate of return is so high, and so many of the benefits are social, that government has a direct interest in helping individuals achieve high levels of education. The role of government is especially justified because not even the Wolfe and Haveman analysis includes the importance of an educated populace to the nation's economic future in a globalized economy.

Given these remarkable returns to education, it should be possible to show empirically that boosting the number of poor and low-income youth who attain a college degree would increase their economic mobility. Indeed, as previous work for the Economic

Mobility Project has found, there is solid evidence that youth from all economic backgrounds can improve their earnings prospects and their upward economic mobility by completing college.[7]

AN IMPORTANT QUESTION

Although the returns to education have been robust for many decades, the laws of supply and demand imply that if the recommendations we offer below prove effective and hundreds of thousands of youngsters from poor and low-income families do in fact achieve two-year or four-year college degrees, the increased supply of college graduates might cause a decline in the wage premium now paid to educated workers. In the 1970s, a large influx of college graduates, some of whom attended college to avoid the Vietnam War, into the labor market substantially decreased the salaries of the educated, leading at least one prominent labor economist to fret about Americans being over-educated.[8] It is important to pause and consider whether the same might happen again if college attendance rates were to rise as they will if our proposals have their intended impact.

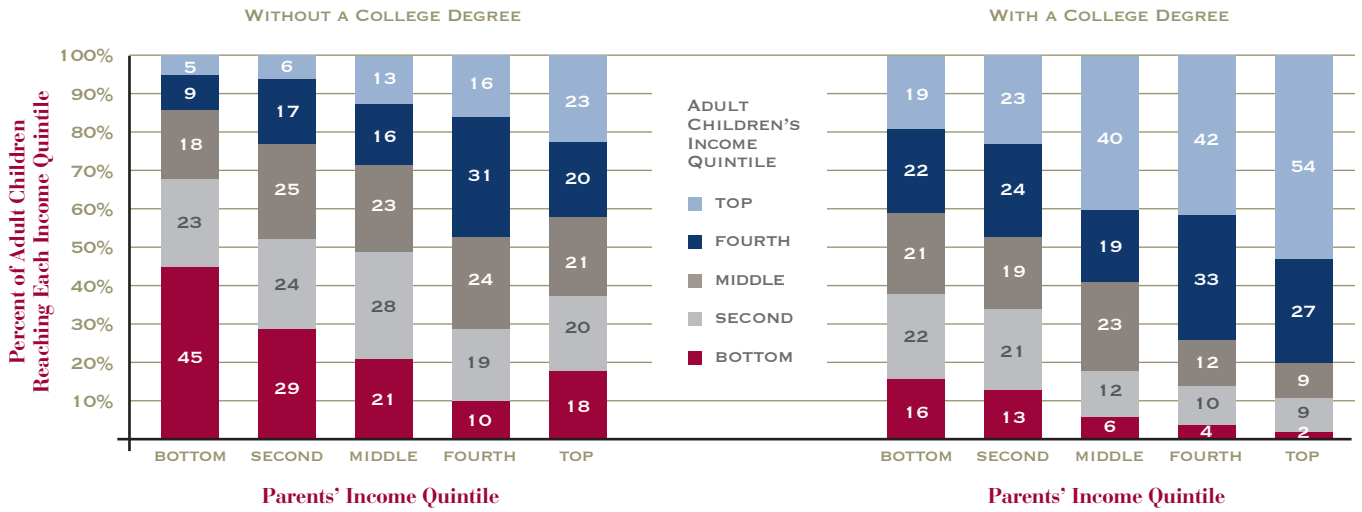
Our calculations suggest that if the percentage of college graduates in the American labor market were to rise from about 25 percent to 35 percent, and if the demand for college graduates in the labor market were to remain fairly stable, rates of return to college would fall by nearly half, declining almost to the their levels of 30 years ago. If the percentage of college graduates rose from 25 to even 30 percent, with demand staying stable, rates of return to college would decline by almost a third, but would remain well above their low levels of the 1970s.[9]

However, these scenarios are unlikely to materialize any time in the foreseeable future. Even if the percentage of young people graduating from college today were to increase to 35 percent or 30 percent, the increase in education rates of the total labor force (as opposed to the cohort of young workers) would rise much more gradually, taking many years to translate into much higher levels nationwide. Furthermore, the labor market demand for college graduates is likely to increase in the next few decades, as technological advances and continuing globalization lead to further increases in the market rewards for the most educated workers—as they have in recent decades.[10] For these reasons, we believe that a significant increase in the number of young people completing college degrees would not dramatically reduce the earnings of college graduates in the near future. College education will remain a worthwhile investment even if the share of young people who earn college degrees rises substantially. Increasing the rates of college attendance and graduation is a promising strategy for increasing economic mobility in America.

POSTSECONDARY EDUCATION AND INCOME

Figure 2 shows how a four-year college degree helps adult children move up the income distribution past peers in their own generation. Adult children with parents in the bottom income quintile, for example, nearly quadrupled their chance of moving all the way to the top quintile by obtaining a college degree, from 5 percent to 19 percent.[11] Nearly half the adult children with parents in the bottom quintile stay in the bottom unless they get a college degree. With a college degree, their chance of remaining in the bottom plummets by nearly two-thirds.

FIGURE 2 **Chances of Getting Ahead for Adult Children with and without a College Degree from Families of Varying Income**



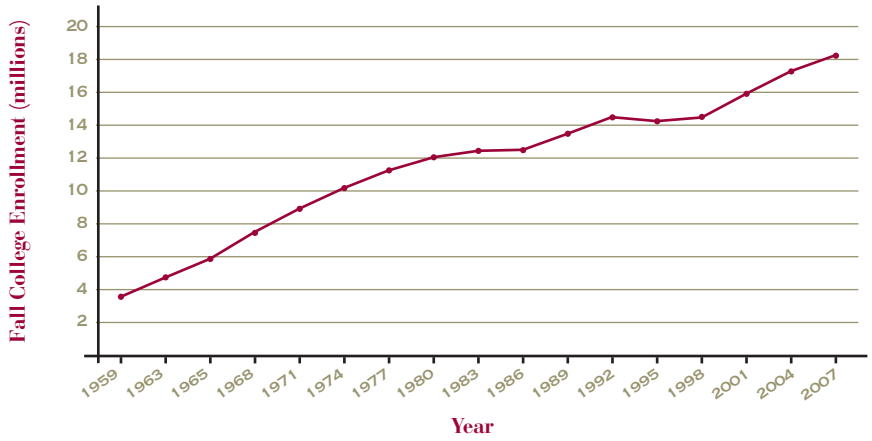
Source: Brookings tabulations using data from the Panel Study of Income Dynamics; See Haskins, 2008a

Every poor and low-income child who achieves a four-year college degree can dramatically increase her chances of moving into the middle class. This is also likely true of those who get a two-year degree, since the rates of return per year of education are roughly the same for two-year and four-year colleges.[12]

With these returns to a college education, which have been increasing for decades, and this proven route to economic mobility, young people should be flocking to the nation's colleges and universities. Indeed, there has in fact been a steady increase in the number of students of all ethnic groups enrolling in college. Figure 3 shows that between 1959 and 2007, enrollment in both two-year and four-year colleges increased by about 400 percent, from about 3.6 million to 18.2 million. Over the same period, the U.S. population increased by about 70 percent, growing only one-sixth as fast as did college enrollment. The rate of increases in enrollments slowed somewhat during the 1980s and 1990s, contributing to a general slowdown in the college attainments of the U.S. population, especially relative to those in other countries.

FIGURE 3

Growth in Fall Enrollment in Degree-Granting Institutions, 1959–2007

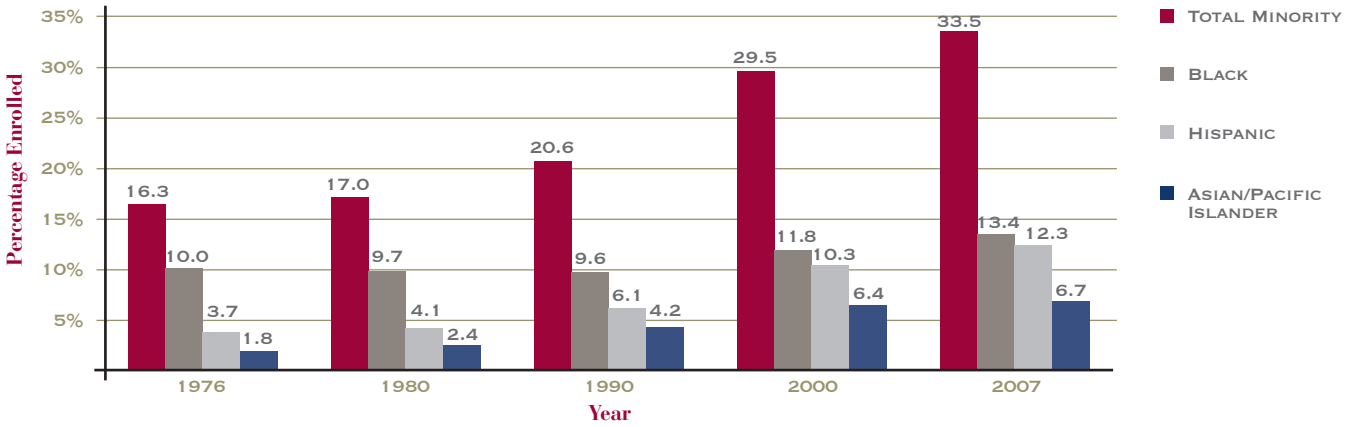


Note: 1962 data not available; 1963 data substituted for 1962 data.
Source: National Center for Education Statistics, 2009, Table 226.

Figure 4 shows that over the period from 1976 to 2007, minority enrollment nearly doubled, from 16 percent to 34 percent of all students. Asians and Pacific Islanders grew by more than 370 percent as a fraction of total enrollment while Hispanics grew by more than 230 percent. In both cases, the trends reflect increases in their rates of college-going as well as population growth, especially from immigration. While enrollment of blacks did not rise as much as did that of other minority groups and was somewhat stagnant between the mid-1970s and 1990, it nonetheless did increase from 10.0 percent to 13.4 percent of total enrollment.[13]

FIGURE 4

Growth in Fall Minority Enrollment in Degree-Granting Undergraduate Institutions, Selected Years 1976–2007



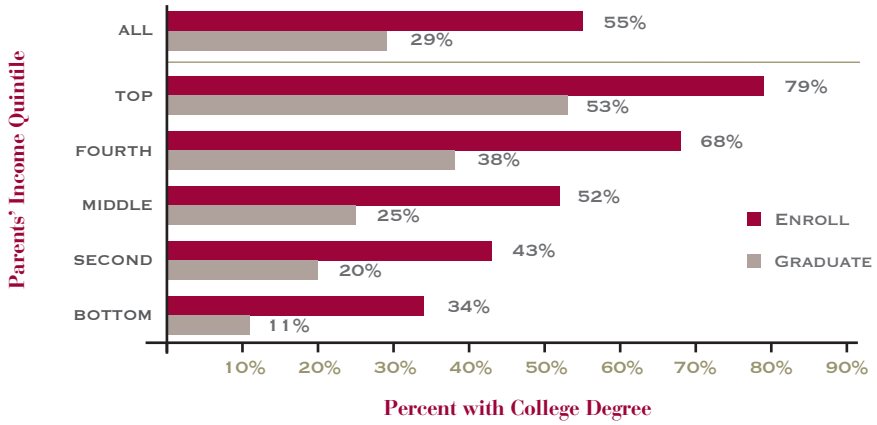
Source: National Center for Education Statistics, 2009, Table 226.

College enrollment in general and the enrollment of minority students in particular continues to grow. Undoubtedly, many of the young adults from minority groups who have been enrolling in college are now enjoying the economic advantages that, as Figure 1 shows, have been increasing dramatically.

UNREALIZED POTENTIAL

However, college completion rates tell another story. Students are dropping out at high rates, not only failing to get the full economic return of a college education, but also using the nation's college resources inefficiently. In this regard, the data on four-year college enrollment and completion highlighted in Figure 5 are somewhat discouraging. Despite the progress in college enrollment made by minorities, there is still a precipitous decline in college enrollments and graduation rates as parental income declines. Children from families in the bottom income quintile have only a 34 percent chance of enrolling in college as compared with an enrollment rate of nearly 80 percent among children in the top quintile. If the enrollment rates portray a picture of disadvantage for students from poor and low-income families, the degree completion rates are even worse. Children from the bottom quintile are only 20 percent as likely to earn a college degree as children from the top quintile.[14]

FIGURE 5 **Poor Children Less Likely to Enroll in College; Even Less Likely to Graduate**

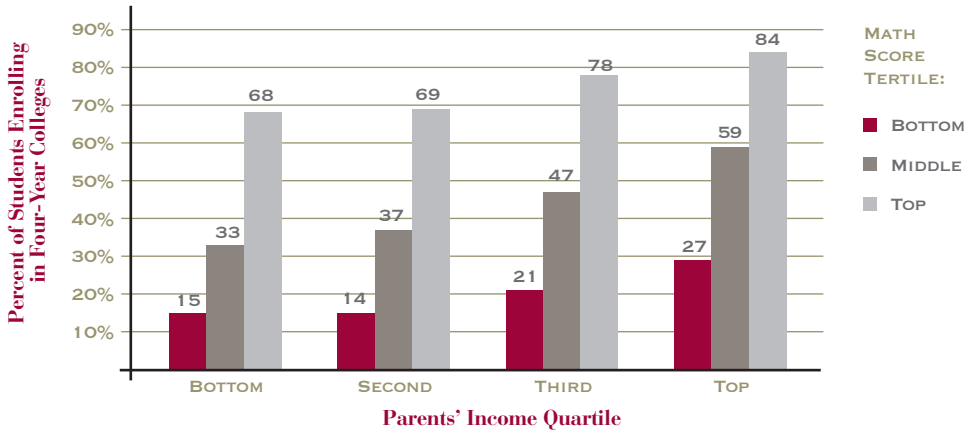


Source: Brookings tabulations using data from the Panel Study of Income Dynamics; See Haskins, 2008a

As the close relationship between family income and college-going and dropout rates suggests, family background is still a formidable barrier to earning a college degree as a way to increase economic mobility.[15] But there are important factors other than family background that affect college-going. Consider the relationship between student learning (as measured by math scores in the senior year of high school), parent income, and

enrollment in four-year colleges taken from a 2005 study by Ellwood and Kane (see Figure 6).[16] High-achieving youngsters from the bottom income quartile have a 68 percent chance of enrolling in college, over four times the 15 percent rate of their low-achieving peers from poor families. This difference shows that the postsecondary education system is at least partially successful in admitting students based on merit even if they do not have much money. The high rate of college enrollment by high-achieving poor students is good news, probably reflecting hard work on their part, the work of college recruiters and admissions officers, and the availability of student aid.

FIGURE 6 **College Enrollment by Parents' Income Quartile and Child Test Scores**



Source: Ellwood and Kane, 2000, pp. 283-324.

However, the data in Figure 6 contain less optimistic findings as well. The first is that high-achieving children from families in the bottom half of incomes still fall 15 to 16 percentage points behind high-achievers from upper-income families in college enrollment. Similarly, youngsters from the bottom two income quartiles who achieve math scores in the middle third of achievement have only a 33 percent and a 37 percent chance respectively of enrolling in college as compared with a 47 and 59 percent chance for young people with similar math scores from families in the top two income quartiles. Many children in the bottom half of achievement who do not make it into college might also do well there, especially if they were enrolled in more affordable two-year schools or non-elite four-year colleges, and thereby increase their odds of joining the middle class.[17]

AN OPPORTUNITY TO INCREASE ECONOMIC MOBILITY

We conclude that the best available data show that most children who complete college, including those from poor families, will experience substantial economic mobility. Policy

makers interested in promoting economic opportunity, then, should focus their attention on ways to increase college enrollment. Many students from poor families who are high achievers do not now attend college. This group should be the first priority in any attempt to increase college enrollment. However, focusing exclusively on enrollment will not be enough. Policymakers, K-12 school officials, and college administrators and professors must also be concerned with figuring out ways to increase college completion rates for poor and low-income students. We believe there is every reason to be optimistic that increased rates of college enrollment and completion are possible and that if achieved the nation's record of promoting economic opportunity would receive a boost.[18]

WHY FEDERAL SUPPORT FOR POSTSECONDARY EDUCATION?

At least two arguments justify federal involvement in expanding postsecondary education, especially for young people from poor and low-income families. First, the American economy needs educated workers to provide leadership, innovation, research, and competent and reliable labor at all levels. This rationale has become even more important in recent decades as technological innovation and a globalized economy have resulted in a premium on highly educated workers.[19] There is growing recognition that other nations are surpassing the United States in the share of their population obtaining postsecondary education.[20] This surprising fact has generated widespread and growing concern that the American economy will fall behind other economies unless the U.S. improves its schools and increases the share of its young people with a college education.[21]

A second justification is the federal government's long-standing commitment to promoting equality of educational opportunity and its close cousin economic mobility. Arguably, the United States maintains the greatest commitment to free markets of any of the world's advanced economies. Yet even economists who are sympathetic to the free market, such as Nobel laureate Milton Friedman, allow room for government intervention when markets do not function efficiently or equitably.[22] If postsecondary education constituted an efficient and equitable market, huge numbers of young people, including those from poor families, would flock to postsecondary institutions.

However, several market imperfections and inequities arise. One is that parents of many young people cannot afford to pay for postsecondary education out of their current income. Private grants and loans for this group of students would be one approach to solving the financial constraint. Yet grants for college are expensive and complex to administer. Loans also have problems, reflecting various imperfections in capital markets. For instance, creditors who could issue the loans might be reluctant to lend because of imperfect information on repayment risks and the absence of collateral. The information that poor and low-income students get about the returns to different kinds of college programs and degrees is likely imperfect as well. Moreover, those who are potentially college students are reluctant to incur substantial debt today for gains that come in the future and are somewhat uncertain. To make matters worse, colleges and universities have a natural tendency to maximize their income and financial stability by admitting students who can afford tuition and who are likely to make financial donations to their alma mater after they graduate.[23]

Nor do all the barriers to college fall on government policy or the actions of postsecondary institutions trying to maintain solvency. Some young people want

to begin earning money as soon as they can, especially poor and low-income youth who are eager to help their families or must support themselves. Another personal barrier is that many young people, including a high share from poor and low-income families, have done poorly in school since the elementary grades and want to get out of school as soon as they can, often before graduating from high school. Others, as we have noted above, give college a chance but drop out before attaining a degree. For all these reasons, lower-income students are less likely to apply to college, especially to more selective colleges, and they are less likely to attend when they are accepted, even when they have the same level of academic qualifications as students from higher-income backgrounds.[24]

Given the American economy's need for educated and skilled workers as well as the long-standing government commitment to promoting opportunity, government intervention is appropriate to address the barriers holding back many young adults from maximizing their educational and economic potential. Similarly, as shown by a 2009 poll conducted for Pew's Economic Mobility Project, the public believes that education is a key factor influencing economic mobility. But even with government help, problems abound.

OVERVIEW OF FEDERAL, STATE, AND PRIVATE STUDENT AID

If spending is any measure, the last decade has seen a growing commitment on the part of the federal government, state governments, state and private colleges, and the private sector to help Americans attend college (see Box 1 for a brief history of federal support of postsecondary education). All four sectors have increased their support for postsecondary grants by at least 80 percent in dollars adjusted for inflation. Table 1 summarizes the major categories of spending by the federal government, state government, and the private sector to provide students or their parents with grants, loans, and tax breaks to pay at least part of the costs of pursuing postsecondary education or training. Of the total of more than $162.5 billion available to students in the 2007–2008 school year, $68.4 billion, or 42 percent, was from federal, state, and private-sector grants; $85.9 billion, or 53 percent, was from student loans; and $7.0 billion, or 4 percent, was from tax breaks. In addition, $1.2 billion, or less than 1 percent, was spent on the federal work-study program for poor and low-income students. As shown in the last column, total spending on college aid of all types has increased slightly more than 100 percent in constant dollars since 1997–1998. There are at least 31 separate federal provisions across the three categories of grants, loans, and tax breaks, many of them overlapping and redundant.[25]

TABLE 1

Overview of Student Aid, 2007-2008

Type	Cost 2007 $, billions	10 Year Change Percent
Grants	$68.4	82
Loans	$85.9	103
Tax Breaks	$7.0	75
Work Study Program	$1.2	114
TOTAL	**$162.5**	**101**

Note: The 75 percent increase for tax breaks is for the period 1998–1999 to 2007–2008 because tax benefits began in 1998–1999.
Source: Baum and Payea, 2008, p. 6.

By any measure, the federal government is the major player in the field of providing aid to students, and not only minorities and students from poor and low-income families, but almost anyone who seeks support, regardless of their family background. Roughly, federal grants are for the poor, tax credits are for families with higher income, and loans are for everyone. The funds provided as grants by colleges and universities are often based on merit or other factors, and not need or not only need.

Given the complexity suggested by this wide array of support, in the sections below we briefly examine each of the major types of support to gain an understanding of the strengths and weaknesses of the nation's commitment to promoting postsecondary education among students from poor and low-income backgrounds. Although we focus most of our attention on federal aid, it is important to consider that states and the private sector play an important role in helping students pay for postsecondary education. In 2007–2008, for example, colleges and universities provided over $29 billion in grant aid to students. Private employers also joined in by providing assistance to their employees. In addition, over $17.6 billion in loans were made to students by private sources, primarily banks.[26]

As the 2006 report of the Spellings Commission on higher education states, "We found that our financial aid system is confusing, complex, inefficient, duplicative, and frequently does not direct aid to students who truly need it".[27] We agree, and thus review the programs with an eye toward badly needed simplification as well as reforms that would concentrate federal aid on poor and low-income students to an even greater degree than it is now.

BOX 1

A Brief History of Federal Student Aid

The U.S. government's commitment to promoting education and economic opportunity is nothing new. Beginning at least with the New Deal and then expanding greatly after President Johnson declared War on Poverty in 1964, the federal government entered more and more areas of American life in its attempt to promote economic opportunity and mobility.[28] The history of federal legislation to support postsecondary education is even longer. As early as the Civil War, Congress and President Abraham Lincoln passed the Morrill Act of 1862, which funded colleges by giving federal land to the states. However, for nearly a century after the Morrill Act, the federal government played a modest role in college education, with the exception of funding agricultural and technological research and running the military academies (The U.S. Military Academy (West Point), the U.S. Naval Academy, and the U.S. Air Force Academy opened their doors in 1802, 1845, and 1954 respectively).

Federal support for postsecondary education took a major step forward when, in 1944 near the end of World War II, Congress passed and President Roosevelt signed the Serviceman's Readjustment Act, commonly known as the G.I. Bill. The new law provided three major benefits to returning servicemen and servicewomen: loans for the purchase of homes, farms, or businesses; unemployment pay; and benefits for education and training. The provisions on education provided a generous federal subsidy for all veterans who wanted to attend college.[29] The impact on higher education was enormous. By 1947, veterans comprised 49 percent of college admissions. Within a decade of the end of the war, 7.8 million of 16 million veterans had participated in education or training programs with support from the G.I. Bill.[30] Pre-war (1939) college enrollment of 1.3 million students vaulted to over 2 million in 1946, largely because of the G.I. Bill.[31] Of great importance in the long run, the G.I. Bill established the precedent that the federal government had the power and the will to provide direct assistance to selected groups of Americans to help them pursue educational opportunity and economic mobility. The G.I. Bill was only the first in a long line of postsecondary education benefits for active duty and ex-service members. New programs for service members were enacted after the Korean and Vietnam Wars, a new program was added in 1984, another in 2004, and yet another in 2008. By 2008 five major programs for military personnel and ex-service members were still in operation and more than 520,000 men and women were enrolled in at least one of the programs.[32]

Two decades after the G.I. Bill was launched, President Lyndon Johnson, in pursuing the Great Society and fighting his War on Poverty, urged Congress to enact legislation that would help racial minorities and children from poor families attend college. In his 1965 State of the Union address, Johnson promised that the federal government would "provide scholarships to high school students of the greatest promise and the greatest need and we will guarantee low-interest loans to students continuing their college studies".[33]

As one of the most effective politicians of his generation, Johnson delivered on his State of the Union promise by pushing the Higher Education Act through Congress by the end of 1965.[34] The Higher Education Act has become the heart of federal support for higher education and has now been reauthorized and expanded on many occasions, growing in scope and cost with nearly every reauthorization.



GRANT PROGRAMS OVERVIEW

Within the federal grant program category, the Pell Grant distributes nearly $15 billion or 70 percent of the federal funds (see Table 2). The grant is based on need, and operates through over 5,000 postsecondary institutions that honor the federal payment. The amount of the grant is dependent on the student's family's ability to contribute to paying for college (determined by federal formula), and whether the student is full-time or part-time. As Table 2 shows, Pell Grants have increased by 75 percent in real terms over the last decade. About 5.4 million students received a Pell Grant in 2007–2008, an increase of 3.4 million (170 percent) over the last three decades.[35] Although the maximum Pell Grant of about $4,700 in 2008–2009 seems generous, the maximum grant would have to be about $10,000 to cover the same proportion of the cost of attending a public four-year college as it did three decades ago.[36, 37]

TABLE 2

Overview of Student Grant Programs, 1997–1998 and 2007–2008

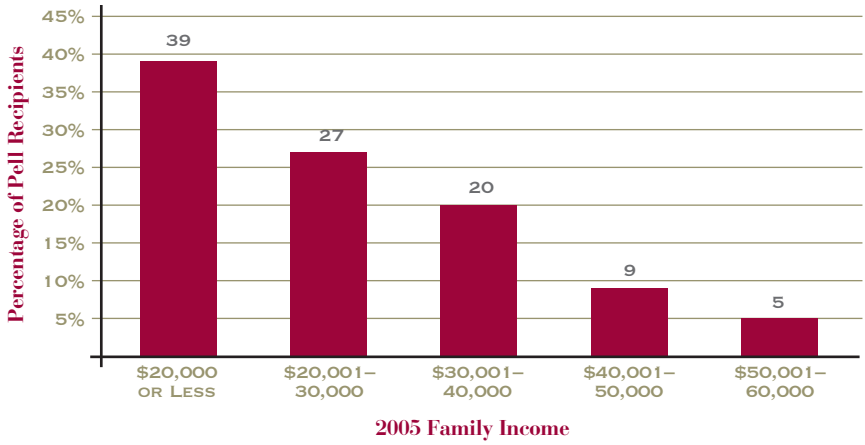
Type of Grant	School Year and Amount (billions, 2007 dollars) 1997–1998	2007–2008	Change Percent
FEDERAL:			
Pell	8.22	14.38	75
Federal Supplemental Educational Opportunity Grant	0.76	0.77	2
Leveraging Educational Assistance Partnership	0.07	0.07	1
Academic Competitiveness Grant	—	0.35	—
SMART Grants	—	0.23	—
Veterans	1.75	3.52	101
Military/Other	0.95	1.63	72
Subtotal	**11.73**	**20.95**	**79**
STATE AND PRIVATE:			
State Grant Program	4.42	7.96	80
Institutional Grants	16.33	29.07	78
Private Employer	5.05	10.44	107
Subtotal	**25.80**	**47.47**	**84**
TOTAL	**37.53**	**68.42**	**82**

Source: Baum and Payea, 2008, p. 6.

The Pell Grant and forerunner programs have always reflected the intent of the federal government to help poor and low-income families. That the program is largely successful in focusing its benefits on low-income families is shown in Figure 7.

Based on family income for 2005, the College Board has computed the percentage of Pell awards that went to students from families of varying levels of income.[38] Figure 7 shows that 95 percent of Pell Grant recipients were from families with incomes below the median family income ($56,200 in 2005) and almost two-thirds were from families with incomes below half the median.[39] Of course, as reviewed below, there are other types of student aid besides the Pell Grant, and these other types provide a greater share of their benefit to wealthier families than the Pell Grant. Even so, the Pell Grant program is targeted on precisely the poor and low-income students who are our major concern in this report.

FIGURE 7 **Distribution of Pell Grant Recipients by Family Income, 2006–2007**



Source: Baum and Payea, 2008, p. 14, Figure 12 C.

The first step in applying for Pell Grants and all other federal aid is completing a complex form issued by the federal Department of Education, called the Free Application for Federal Student Aid (FAFSA). Students must complete the form during their senior year of high school and submit it to the Department of Education. They must also inform the Department of up to six colleges to which they have applied. The Department then uses a formula to calculate the amount of support the student's family is expected to pay and sends a report to both the student and the colleges they select. Any college that has decided to admit the student then uses the Department's report to devise an aid package that includes the family's expected contribution to paying for college, the amount of the Pell Grant, the amount of federal loan funds available to the student, and any grants or loans from the school itself or the state in which the school is located.[40]

This process is cumbersome and keeps parents and students waiting too long before giving them information about college. In their 2007 study of federal financial aid, Dynarski and Scott-Clayton calculated that it takes approximately 10 hours to complete the FAFSA. The five-page form poses 127 questions, making it more complex than

the IRS's form 1040 for filing a tax return. Dynarski and Scott-Clayton also point out that the student's family does not receive information about aid until spring of the senior year of high school. Thus, families, especially poor and low-income families, worried about whether they can afford to send their child to college often do not even know what aid they will receive until a few months before their student must leave for college. A system that operates in this fashion—imposing complexity and time burdens on users and informing parents and students about financial aid so late in the process—misses an important opportunity to increase the college enrollment of students from poor families. Accordingly, below we make several recommendations for streamlining the FAFSA application procedure.

Another major type of grant is aid to veterans and active-duty military personnel. Even prior to expansions enacted by Congress in 2008, veterans and other military programs provided $5.1 billion in aid, up nearly 100 percent over the past decade.[41] The G.I. Bill may not play as substantial a role in postsecondary education as it once did, but the $5.1 billion in aid for veterans and active duty personnel supports around 520,000 students and offers a path to better jobs and economic security for youngsters from poor and low-income families, a path that could be significantly widened.[42] The military, arguably the institution in U.S. society with the least discrimination based on race, ethnicity, or economic background, is a viable pathway to the middle class for youth from poor and low-income families, in large part because of the generous support for education offered to young adults both while they are in the military service and afterwards.

As Table 2 shows, the non-federal sources of grant aid (state, institutional, and private and employer) are also substantial at over $47 billion. These include institutional grants that provide over $29 billion and state governments which provided nearly $8 billion for both merit-based and need-based grants and scholarships.[43] The trend in state aid is toward aid that is not based on need. According to the College Board, non-need-based aid increased from 17 percent of all aid in 1987–1988 to 28 percent in 2006–2007.[44] Finally, private employers and other private sources contribute over $10 billion for grants and scholarships at postsecondary institutions. Like nearly every other source of student aid, private sector spending is increasing annually.[45]

In addition to all of these sources of financial aid, state and local governments spend vast sums of revenue on general support for their colleges and universities. According to data from the State Higher Education Executive Officers, in 2008 state and local governments spent more than $85 billion supporting their colleges and universities.[46] Most economists find that these expenditures are regressive in the sense that the large subsidies go to flagship schools that mostly serve middle-to-upper income students.[47]

If these subsidies are included in calculations of public support for higher education, the entire package would look less progressive than it does when we focus on student aid alone.

The rising level of investment in postsecondary education on the part of so many sectors of American society indicates the value placed on postsecondary education and the faith these sectors have that their investments will produce returns to individuals and society. That a substantial (if declining) fraction of this spending is directed to students from poor and low-income families demonstrates the confidence this wide swath of American society has in the ability of postsecondary institutions to help students improve their prospects.

However, as we note below, there are flaws in the system. Arguably the most important is that the grant funds could—and, we argue, should—be used to help even more poor and low-income students. It is, after all, the most desirable form of aid because it does not need to be repaid and therefore does not leave students saddled with debt at the outset of their careers.



LOAN PROGRAMS OVERVIEW

The National Defense Education Act of 1958 established the first federal loan program for postsecondary education. Since President Johnson's Higher Education Act of 1965, the federal government has been heavily involved in helping students and families get loans for postsecondary education. It is easy enough to see why. As we indicate below, the costs of a college education are substantial and growing.[48] Many families cannot afford to pay these high and growing costs without help. Moreover, it seems likely that more families may be dependent on help today and in the future than in the past because family income in the middle of the distribution and below has been somewhat stagnant or grown only slightly for well over two decades.[49] A possible solution to this problem is for students themselves to borrow money. However, the typical 18-year-old who wants to go to college is short on all three qualifications—collateral, earnings from secure employment, and a solid credit history— that loan institutions look for in credit-worthy customers. Moreover, from the students' perspective, it takes a certain amount of faith in their future income to willingly go many thousands of dollars in debt before landing a good job, especially because they will be taking on debt at a time when they could be earning money.

As have the other categories of assistance for students, the commitment to loans from both government and the private sector has been growing rapidly (see Table 3). Over the decade ending with the 2007–2008 school year, federal loans increased by about 70 percent, from about $39.26 billion to $66.82 billion in dollars adjusted for inflation.

Loans sponsored by states more than tripled, while loans from the private sector grew by nearly 600 percent. This rapid growth in private-sector loans suggests that there may be some difficulty with the federal system, causing students to borrow from private institutions at rates that are usually higher than the rates offered by the federal programs and with provisions for repayment that are not as generous.

There are two major types of federal student loan programs. The Stafford Federal Family Education Loan Program (FFELP) provides money from the private sector, usually banks and other lending institutions. The federal government stipulates a maximum interest rate and guarantees the loans. The second type of loan is the Ford Direct Student Loan (FDSL). In this program, the federal government uses its own resources to provide the loans, thereby cutting out the private sector. Both of these major types of loans can be further subdivided into subsidized and unsubsidized loans. In the subsidized loan programs, which are available only to needy students, interest does not accrue while the students are in school and for six months thereafter. By contrast, in the case of unsubsidized loans, which are available to students regardless of financial need, interest accumulates from the date the loan is issued. The interest rate in the unsubsidized program is now fixed at 6.8 percent; Congress has dropped the rate in the subsidized program to 3.4 percent, which is gradually being phased in. Counting both subsidized and unsubsidized loans in the two major programs, the federal government was responsible for $54.95 billion in loans in 2007–2008, up by over 60 percent from $34.12 billion in 1997–1998 in dollars adjusted for inflation (see Table 3).

In addition to the two major loan programs for students, the federal government operates the PLUS loan program for parents. Parents can get either the FFELP loans or direct loans but the total amount borrowed by parents cannot exceed the cost of attending school minus all other financial aid. PLUS loans have also been increasing rapidly, growing by over 200 percent, from $3.47 billion in 1997-1998 to $10.59 billion in 2007–2008.

Some policy analysts and policy makers have criticized the FFELP program because it uses private-sector lending institutions to make loans rather than issuing federal loans directly.[50] The critics' case looks good on paper. Financial institutions are willing to loan money to students because they can make a profit on interest payments after covering all their costs. Profits are especially likely because the federal government covers loan defaults, in effect putting the default rate at zero for the lenders (though not, unfortunately, for the federal government). If the federal government used money from tax revenues to finance loans to students who reliably repaid the money, students would be better off because the government could, by charging an interest rate low enough to just cover program costs and the default rate on previous loans, offer a lower rate to students

TABLE 3

Overview of Student Loan Programs, 1997–1998 and 2007–2008

Type of Loan	School Year and Amount (billions, 2007 dollars) 1997–1998	2007–2008	Change Percent
FEDERAL:			
Subsidized Stafford:			
Federal Direct Loans	7.23	5.81	-20
Federal Family Education Loans	13.69	22.63	65
Unsubsidized Stafford:			
Federal Direct Loans	4.28	4.86	14
Federal Family Education Loans	8.92	21.65	143
PLUS:			
Federal Direct Loans	1.17	2.29	96
Federal Family Education Loans	2.30	8.30	261
Perkins	1.38	1.10	-20
Other	0.28	0.17	-40
Subtotal	**39.25**	**66.82**	**70**
NONFEDERAL:			
State Sponsored	0.45	1.46	224
Private Sector	2.54	17.60	592
Subtotal	**2.99**	**19.06**	**537**
TOTAL	**42.24**	**85.88**	**104**

Source: Baum and Payea, 2008, p. 6.

than private lenders. In trying to reduce the interest rate paid by students, however, under current deficit circumstances the federal government must make interest payments to get the money to finance the student loans in the first place.[51]

The smallest federal loan program is the Perkins loan. Congress has not appropriated any new money for Perkins loans since 2005, so the only new federal money comes from loan cancellations.[52] The structure of the Perkins program is unique. Each of the approximately 1,800 participating postsecondary institutions has a revolving loan fund to supply the cash for student loans. Funds from the federal government are distributed to participating postsecondary institutions based on a formula. The actual loan is taken from the institution's revolving fund to which they must add a matching contribution equal to at least one-third of the federal allocation for that year. Money that is repaid by students is returned to the revolving fund and used to finance new student loans.



TAX PROVISIONS OVERVIEW

As shown in Table 4, there are many provisions in federal tax law designed to promote education by offsetting part of its cost. Until 1997, tax provisions on education were modest and at most a minor part of the federal strategy to achieve the goal of educational opportunity. According to the nonpartisan Congressional Research Service, before 1997 the collective value of the modest tax provisions designed to promote education was less than $2 billion per year.[53] But under the urging of the Clinton administration, in 1997 Congress enacted four new provisions that doubled the number of tax provisions on education and greatly expanded their cost.[54] There were two major tax credits (the Hope Credit and the Lifetime Learning Tax Credit), a deduction of interest on student loans, and an exclusion of earnings from the previously established federal Coverdell savings accounts (see Table 4). The two tax credits alone now cost about $7 billion per year.[55] In 2001, yet another tax provision—an above-the-line deduction[56] for higher education expenses—was added to the tax code.

None of these provisions fit well with the long-standing emphasis of federal education policy on helping poor and low-income families. The credits, as well as the other recent tax provisions, were designed to help the middle class and that is exactly what they do. The Hope Credit can be claimed for 100 percent of the first $1,200 of allowable education expenses and 50 percent of the second $1,200; the Lifetime Learning Tax Credit is equal to 20 percent of up to $10,000 in allowable education expenses. In 2008, the credits phase out at adjusted gross incomes between $48,000 and $58,000 for single filers ($96,000 and $116,000 for joint filers). However, neither of the education credits is refundable.[57] If they were refundable, families that pay no income taxes would benefit from the credit because government would send them a check equal to the amount for which they qualify. It is hardly surprising that Leonard Burman and his colleagues at the Urban Institute and Brookings Institution Tax Policy Center found that, in sharp contrast with the Pell Grant, both the education credits give most of their benefits to families that are neither poor nor low-income. Their analysis showed that less than 5 percent of either credit went to families with incomes under $20,000. By contrast, over half the benefits went to families with incomes over $50,000 but less than the income phase-outs noted above.[58]

TABLE 4

Overview of Federal Tax Provisions on Education

HOPE CREDIT Enrolled half-time; first 2 years of college only; 100 percent of first $1,200; 50 percent of second $1,200; maximum credit of $1,800; applies to qualified tuition and related expenses; phases out between $96,000 and $116,000 for married taxpayers filing jointly (for 2008; adjusted for inflation); cannot have a felony drug conviction
LIFETIME LEARNING TAX CREDIT 20 percent of first $10,000 of tuition and related expenses; phase out same as Hope Credit; can be used for graduate school; can be enrolled for any number of courses
PARENTAL EXEMPTION FOR STUDENTS Parents who pay for college expenses of their children can continue to claim them as an exemption through age 23
BUSINESS EXPENSE DEDUCTION Taxpayers can deduct the costs of qualifying work-related education expenses (tuition, fees, books, certain travel costs, etc.). However, expenditures on work-related education that would qualify the taxpayer for a new trade or business cannot be deducted
BUSINESS DEDUCTION OF STUDENT LOAN INTEREST Businesses can deduct from their income expenses associated with education provided to their employees
FAMILY DEDUCTION FOR STUDENT LOAN INTEREST Qualified education expenses (tuition, books, room and board, fees) up to a maximum of $2,500 can be deducted; the deduction is phased out ratably over the range from $115,000 to $145,000 for couples, indexed for inflation
SECTION 529 PLANS There are two types of 529 plans. Under prepaid plans, investors can purchase tuition credits from state colleges and universities at current rates to be used in the future. Under savings plans, growth comes from an underlying investment, usually in mutual funds. The rules for both types of education investments are established by states within federal guidelines. Distributions from these plans are exempt from federal income tax
COVERDELL EDUCATION SAVINGS ACCOUNTS Similar to 529 plans, Coverdell accounts allow money to accumulate and be withdrawn tax free for qualified education expenses at a qualified institution. A maximum of $2,000 per year, per child can be contributed. Unlike any other tax provision, qualified spending includes spending on elementary and secondary education
ABOVE-THE-LINE DEDUCTION FOR HIGHER EDUCATION EXPENSES Qualified educational expenditures (defined in the same manner as for the Hope Credit) can be deducted before computing Adjusted Gross Income (AGI); maximum deduction of $4,000 per year on up to $130,000 income for couples; maximum deduction is $2,000 for couples between $130,000 and $160,000
EXCLUSION FOR EMPLOYER-PROVIDED EDUCATION ASSISTANCE Employers may pay and deduct a maximum of $5,250 for college (including graduate school) expenses under an educational assistance plan for their employees (but not dependents). The education does not have to be job-related
EXCLUSION FOR INTEREST ON SAVINGS BONDS Redeeming tax bonds is interest free for bonds purchased after 1989 by someone age 24 or higher if the money is used for education; tax exclusion is phased out ratably between income of $100,650 and $130,650 (indexed to inflation)
EXCLUSION OF SCHOLARSHIPS Most scholarships and grants are tax free if the recipient does not work for the payment

Sources: Jackson, P., 2007; Saving For College; Internal Revenue Service, 2008; Joint Committee on Taxation, 2006.

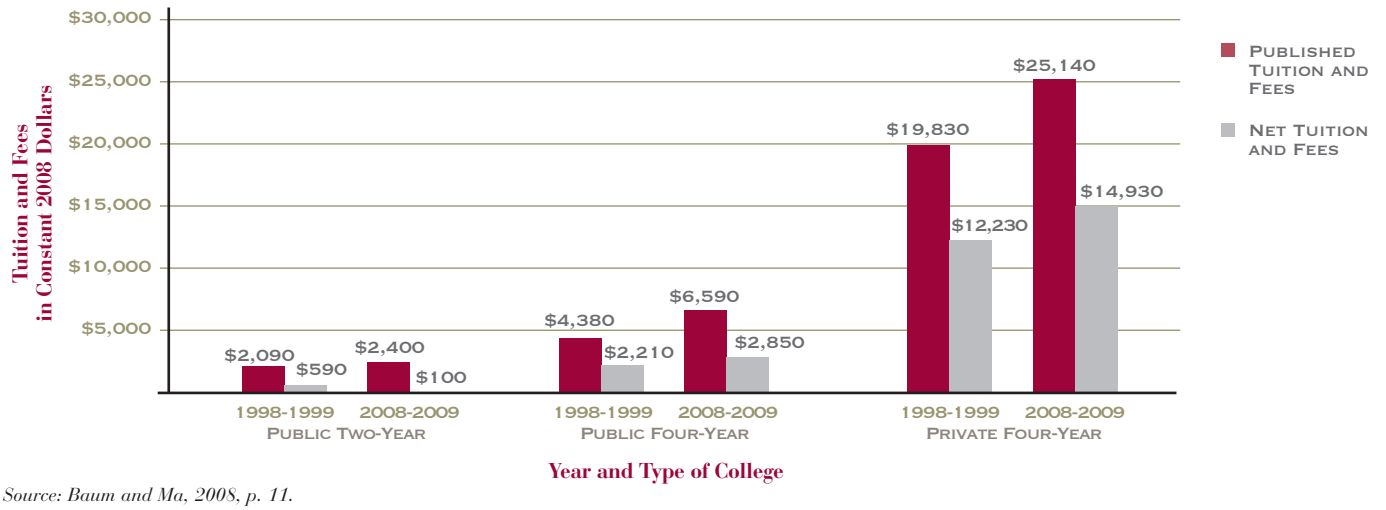
TRENDS IN COLLEGE PRICES, NET PRICES, AND STUDENT AID

The effects of this impressive array of student aid must be understood in the context of college prices. Although every category of student aid increased over the past decade in dollars adjusted for inflation, college expenses have also been increasing rapidly. In the ten years between the 1998–1999 and the 2008–2009 school years, tuition and fees at the average public four-year college or university increased from $4,380 to $6,590 or by 50 percent.[59] By contrast, the maximum Pell Grant increased by only 23 percent over approximately the same period.[60] To make matters worse, median family income increased by only about 3 percent over the period. Clearly, the major source of college funding for low-income students that does not have to be repaid as well as family income failed to keep up with rising college tuition and fees. Thus, the large increases in federal spending over the past decade on programs for low-income students reflect, in part, larger numbers of students attending college rather than more aid per student relative to college costs. The result, of course, is that it is now even more difficult for poor and low-income students to afford a college education—exactly the opposite of the goal we want to pursue to promote economic mobility.

A clearer picture of the impact of these rising costs emerges upon examining changes in the net cost of college over the past decade.[61] In effect, such an analysis combines the trends in student aid with the trends in published prices for tuition and fees to yield a more accurate indicator of how much students have to pay, over and above whatever student aid they might receive. The College Board publishes figures on the net cost of various types of colleges for both the current and previous years going back for more than a decade. As shown in Figure 8, the combined impact of all forms of student aid has been to substantially reduce the net cost of tuition and fees at public two-year, public four-year, and private four-year colleges. In the 2008–2009 school year, for example, student aid reduced net tuition and fees at two-year colleges from $2,400 to an impressive $100. This figure represents a decline by more than four-fifths (from $590 to $100) in the net cost of tuition and fees over the previous decade.

The net tuition and fees of both types of four-year colleges were also greatly reduced by student aid (see Figure 8). The net cost of tuition and fees at the average public four-year college was reduced by over 55 percent in 2008–2009 by student aid (from $6,590 to $2,850). Nonetheless, net cost increased by almost 30 percent (from $2,210 to $2,850) over the previous decade. For private four-year colleges, the impact of student aid on net costs was a reduction in tuition and fees in 2008–2009 by about 40 percent (from $25,140 to $14,930). However, as was the case with public four-year colleges, net cost increased by more than 20 percent over the previous decade, from

FIGURE 8 **Net Tuition and Fees for Various Types of Colleges, 1998-1999 and 2008-2009**



Source: Baum and Ma, 2008, p. 11.

$12,230 to $14,930. Student aid, in short, does greatly reduce the net cost of tuition and fees paid by the average student each year, but with the exception of two-year colleges net costs are moving higher over time.[62] As we have seen, these increases in net prices are even harder for many families to handle because the average income of poor and low- and middle-income families has been stagnant or declining in recent decades.

These figures are averages and do not account for variations in net costs within each college category nor variations among students by income class. Students from the lowest-income families usually receive the highest financial assistance. Although the figures exclude room and board, they also take no account of loans, work-study programs, or the fact that residing at a college should reduce other living costs. Overall, the data suggest that attending college is more affordable than often portrayed in the popular media. Whatever the cost, it is critical—as recognized in the plan we present below—that the U.S. Department of Education and the nation's high schools do more to insure that students and their parents have accurate and timely information about their ability to finance a college education.

EFFECTIVENESS OF STUDENT AID IN BOOSTING ENROLLMENT AND GRADUATION

How effective are the three main vehicles for student aid—grants, loans, and tax provisions—in increasing the numbers of students who enroll in and complete postsecondary education? We examine their efficacy below.



GRANTS EFFECTIVENESS

Given the large federal and state investments in means-tested grant programs and especially the Pell Grant ($15 billion in 2008; see Table 2), it is surprising that there is so little evidence of the impact of Pell Grants on college attendance by low-income students. By contrast, interesting and in many cases methodologically sophisticated studies provide convincing evidence that student grant programs aimed at specific groups or at the general population can have substantial impacts on college enrollment and perhaps even college completion. These studies include analyses of the impacts of the G.I. Bill, of a Social Security Program that provided generous aid to children with deceased fathers, of a state grant program in California, and of the Georgia HOPE scholarship program.[63]

EACH $1,000 OF AID INCREASES THE SHARE OF ELIGIBLE HIGH SCHOOL GRADUATES ATTENDING COLLEGE BY 3.6 PERCENTAGE POINTS.

To provide an idea of the strength of this evidence, consider the studies of the Social Security student grant program and the Georgia HOPE scholarship program. In 1965, Social Security initiated a program that provided a monthly cash benefit to full-time college students between ages 18 and 22 whose fathers were deceased. By 1970, 700,000 college students were enrolled in the program. The average benefit was $6,700 in 1980 (about $16,860 in 2007 dollars). By comparison, the average Pell Grant in 1980 was $2,000. The Social Security program was terminated after 1982, creating the circumstances for a natural experiment of its impact on college going. Taking advantage of this opportunity, Dynarski used data from the National Longitudinal Survey of Youth to examine the impact on college enrollment of students who would have been eligible for the Social Security program if the program had continued, estimating that the program increased the probability of attending college by more than 24 percentage points. By age 28, the average student qualifying for the program had increased his years of schooling by about 0.75 years. Based on these results, Dynarski estimated that each $1,000 of aid increases the share of eligible high school graduates attending college by 3.6 percentage points.[64]

Dynarski found similar results in a study of the HOPE Scholarship program in Georgia. Using funds from a state lottery, Georgia policymakers established the HOPE program in 1993.[65] The program permits in-state students, regardless of their parents' income and with at least a B average in high school, to attend any of Georgia's public colleges with their tuition, fees, and book expenses covered by the program. The program also provides a subsidy of comparable value to students attending in-state private colleges. By using data from the Current Population Survey, and comparing college attendance in Georgia with that in other Southern states, Dynarski found that the program increased attendance at Georgia colleges by between 7.0 and 7.9 percentage points. Unfortunately, the impact was accounted for entirely by increased enrollment among white students from higher-income families. Thus, the HOPE program did increase college enrollment, but not among minority students or students from low-income families, the students about whom we are primarily concerned. In fact, Dynarski's study seems to show that the HOPE program increased the already considerable gap in college attendance between students from black and white families as well as the gap between upper-income and lower-income families.[66] Dynarski concludes that her studies fit well with a host of earlier studies in finding that "a $1,000 drop in schooling costs increases college attendance by 3 to 4 percentage points."[67]

THE PELL GRANT HAS A SUBSTANTIAL IMPACT ON COLLEGE ENROLLMENT BY OLDER STUDENTS IN THEIR TWENTIES AND THIRTIES.

Despite this evidence of grant programs being associated with boosts in college enrollment, the evidence that the Pell Grant itself has produced increased college enrollment among poor and low-income students is more equivocal, although there is some evidence that the Pell Grant has a substantial impact on college enrollment by older students in their twenties and thirties.[68] Ten years after the Pell Grant was introduced, Hansen conducted the first major study of its impact. Comparing enrollment data for 1971 and 1972, (before the Pell Grant program began in 1973) with enrollment data for 1978 and 1979, Hansen concluded that his results "do not accord with expectations that [college] access would increase for lower-income dependents relative to higher-income dependents".[69] Hansen's conclusion produced what Kane called a "firestorm of criticism", and in 1994 Kane attempted to address the methodological criticisms of the Hansen study and replicated Hansen's results.[70] More recently, Kane and many others have continued to hold that the evidence that the Pell Grant increases college enrollment among youths from poor families is at best equivocal, despite the evidence that Pell leads to increased enrollment among non-traditional (adult) students.[71]

In explaining the possibility that money alone may not be enough to boost the college attendance rates of poor and low-income youngsters, Kane, Dynarski, and others have

emphasized the complexity of the federal process of applying for aid. As Kane puts it, the "system [is] so complicated that it nearly requires a college degree simply to understand the full range of subsidies available."[72] Thus, to try to resolve the catch-22 of students needing a college degree to effectively apply for the money to obtain a college degree, below we recommend that the process of applying for federal aid be radically simplified.



LOANS EFFECTIVENESS

Like the research on student grants, research on student loans has produced a great deal of information, including information about the distribution of loans among social and ethnic groups, about the number of students with loan debt and the size of loan debt, and about groups that have problems repaying loans. However, the evidence that loans increase attendance or persistence of low-income students, our primary interest, is weak to nonexistent. Several conclusions from this body of research stand out.[73]

The first is that the volume of loans has increased substantially in recent years. A number of researchers and reviewers have concluded that this rapid increase in loan volume is associated with both the rise of college tuition and fees, the stagnation of family income, and the relative decline in effectiveness of grant aid in helping students and their families cover rising costs. Few doubt that loans have been necessary for some students to enter and stay in school.[74]

Another important finding is that student debt levels have increased rapidly. Both the percentage of students who graduate with debt and the average level of debt have increased. About 60 percent of students have debt when they graduate with a bachelor's degree and average debt for borrowers rose from $19,300 to $22,700 (18 percent in constant dollars) between 2000–2001 and 2006–2007.[75] The evidence also shows that the range of debt around the average is substantial, with a minority of students accumulating large amounts of debt. Moreover, the recent increases in the number of students with loans and the rise of their average debt may signal trouble in the future. It seems reasonable to conclude that the greatest concern should be confined to students with debt levels substantially above average, especially students who do not obtain their degree and therefore will have lower average income to repay their debt.[76]

Regarding the central question of whether loans increase college-going or college completion by low-income and minority students, the data suggest that loans do not have the hoped-for effect of increasing enrollments or persistence. As Heller concludes from his review of the somewhat sparse and methodologically flawed literature of loan impacts, "Student loans ... are unlikely to help the nation close the gap in college participation between the rich and poor, and between [minority groups and whites

and Asians]".[77] Most major reviews of the empirical research come to more or less the same conclusion: middle- and upper-income students are more likely to borrow because low-income students are loan averse; college enrollment is less influenced by the availability of loans than grants; and "financial aid alone is not sufficient to increase college access".[78]

COLLEGE ENROLLMENT IS LESS INFLUENCED BY THE AVAILABILITY OF LOANS THAN GRANTS.

A finding that appears frequently in the literature on student loans is that students from low-income families as well as from black and Hispanic families tend to be averse to debt as compared with wealthier students and white students.[79] Loan aversion is a mechanism that could explain, at least in part, why the evidence that loans increase college going by low-income and minority youth is so weak.



TAX PROVISIONS EFFECTIVENESS

As compared with research on the effects of grants and loans, there is less information on the effects of federal tax provisions on college enrollment. An exception is a study by Long on the effects of the Clinton tax credit programs. Based on several data sources, Long found that families who benefitted most from the credit had incomes between $30,000 and $75,000 and that there was no evidence that the credits increased college enrollments even among students from eligible families.[80] There was also a suggestion in her data that the credit may have contributed to tuition increases in some states and colleges. For the purposes of this paper, the most important finding, which flows inevitably from the structure of the tax credits, is that few low-income families received any benefit from the program. In short, consistent with the study by Burman and others referred to earlier, college tax credits as currently structured have little or no impact on college attendance by poor and low-income students.

COLLEGE TAX CREDITS AS CURRENTLY STRUCTURED HAVE LITTLE OR NO IMPACT ON COLLEGE ATTENDANCE BY POOR AND LOW-INCOME STUDENTS.

The evidence that grants, loans, or tax provisions increase either college enrollment or persistence by low-income and minority students is mixed at best. The strongest evidence indicates that grants can boost college attendance of some groups, but research on Pell Grants, the biggest college grant program operated by the federal government and the best targeted on poor and low-income and minority students, does not provide solid evidence of increased enrollment. There are nonetheless hints in the research literature that grants could be more effective if potential student recipients were well informed of the availability of grants and if the process of applying for them were simple and transparent. There is also some suggestion in the research literature

that loans can be more effective if the debt burden is modest and if students are persuaded that their ability to pay back the loans will be facilitated by reasonable repayment terms and arrangements. Keeping these conclusions in mind, we now turn our attention to finding ways to reform state and federal policy to maximize the college enrollment and persistence of poor and low-income students.

A PLAN FOR PROMOTING COLLEGE ATTENDANCE AND GRADUATION

Increasing the share of youngsters who complete two-year or four-year degrees would produce positive effects for both those receiving additional education and for the nation. The economic returns could justify additional expenditures, although there are few good benefit-cost studies to make a solid case. The cost of postsecondary education is high and moving higher, and the college dropout rate, especially for students from poor families, is somewhat alarming. Even so, including both the economic effects of additional years of schooling on young adults from poor families and the secondary effects reviewed by Wolfe and Haveman, the rate of return to postsecondary schooling would seem to justify additional investment. Thus, in the following four sections we lay out a plan for promoting college attendance and graduation for poor and low-income students by:

- improving academic preparation in the pre-college years to increase scholarly success in two-year and four-year colleges;
- helping poor and low-income students select and pay for a college education;
- helping poor and low-income students stay in college until they receive a certificate or degree; and
- clarifying the goals of federal postsecondary education policy and research.

Our recommendations are summarized in Table 5.

TABLE 5 **Summary of Recommendations to Increase College Enrollment and Graduation Rates of Students from Poor and Low-Income Families**

Policy	Goal
Improving Academic Preparation	
Increase the quality and coverage of preschool programs for poor children	To increase school readiness
Schools establish culture of college-going	To increase interest in and academic preparation for college
Improve academic preparation for college coursework	To improve students' ability to successfully engage in college coursework and increase graduation rates
States build longitudinal data systems	To enable schools and school systems to track the success of their graduates in college and to conduct studies of factors correlated with college success
Selecting and Paying for College	
High schools improve college and financial aid counseling	To help students enroll in colleges that fit their abilities and qualifications and obtain student aid packages that match their needs
Simplify application for federal aid and provide early notification to families	To make applying for federal student aid easier and more transparent and make low-income families aware of the generous student aid available
Reform Pell Grant by providing maximum benefit to families under 150 percent of poverty and increasing maximum grant to over $5,000	To increase the average amount of federal aid for poor and low-income students by increasing the grant maximum and by focusing aid on those with greatest need
Terminate several redundant grant programs	To help finance expansion of the Pell Grant and to increase the efficiency of federal student grant programs
Provide stipends for older students	To help older students, many with families, reduce their workload to attend college
Expand the Income-Based Repayment system	To encourage students to borrow money needed for college and to make repayment of college loans easier
Reform state financing of postsecondary education by providing 25 percent of basic support to colleges and universities in the form of vouchers for low-income students; federal government create a $.5 billion pot to match state voucher programs	To increase incentives for state colleges and universities to attract poor and low-income students
Staying in College	
Provide federal incentive grants encouraging colleges and universities to mount innovative programs to help poor and low-income students stay in college	To increase the college graduation rate of poor and low-income students
Clarifying Federal Policy and Research	
Make college enrollment and graduation rates of students from low-income families a top priority of federal education policy and research	To clarify a major goal of the nation's spending on postsecondary education and to determine whether the nation's investment in supporting postsecondary education for poor and low-income students is paying off

IMPROVING ACADEMIC PREPARATION

In presenting our proposals for promoting college attendance, we want to be clear that we do not think everyone should necessarily go to college. Any reasonable plan for increasing economic mobility must not write off young people who do not attend college. All three of this paper's authors have proposed policies for promoting the skills and experience—hence the economic mobility—of young people who do not attend four-year colleges.[81] Some of these approaches, such as expanding apprenticeships, complement the effort to strengthen other postsecondary options. Indeed, many of today's best programs combine training with postsecondary classes, geared at least to the two-year college level. However, in this report we focus on programs aimed at boosting the academic preparation of poor and low-income students hoping to attend college and convincing them that they could be successful in two-year or four-year colleges.[82]

One of the greatest problems in public education is the huge gap between the achievement of white, Asian, and middle- and upper-income students as compared with black, Hispanic, and low-income students.[83] After more than four decades of public policy aimed at reducing the achievement gap, there has been modest but inadequate progress. A striking piece of evidence about how poorly prepared high school graduates are for college work is demonstrated by surveys (conducted by the National Center for Education Statistics) on the percentage of entering freshmen in two- and four-year institutions enrolled in college remedial programs.[84] More than one-quarter of all freshmen (28 percent) were enrolled in one or more remedial courses in 2000. For public two-year colleges, the figure hit 42 percent. Research by Breneman and Haarlow suggests that minority students are disproportionately represented in remedial courses.[85] At a minimum, students who must take remedial courses require more time to complete their degrees, but an even more serious problem is that they have been found to be more likely to drop out of college altogether.[86]

A revealing study on group differences in scholarly preparation by entering freshmen was conducted by Greene and Forster in 2003. Defining minimum college readiness as receiving a high school diploma, taking courses required by colleges for basic academic preparedness, and demonstrating basic literacy skills, Greene and Forster report that less than 40 percent of white and Asian students were college-ready. But this figure was twice the rate of 20 percent for black students and more than twice the rate of 16 percent for Hispanic students.

An equally compelling picture of the problems faced in college by poor and low-income black and Hispanic students is provided by a new data set composed of extensive information on a representative sample of nearly 4,000 white, Asian, black, and Hispanic students attending 28 selective colleges and universities by Massey, Charles, Lundy, and Fischer. Their "Source of the River" study provides the most complete information to date on the background and adaptation of students from all four ethnic groups to college life. Although the first publication from this massive study only includes information through the first semester of the freshman year in college, two outcomes are already clear. First, whites, Asians, and middle-class black and Hispanic students come from very different social and economic backgrounds than black and Hispanic students from poor families. Poor and low-income black and Hispanic students had less educated parents, had attended worse public schools with poorer teachers, and were exposed to much greater levels of violence and disorder in their neighborhoods and schools than students from more advantaged backgrounds. Second, the authors found that a significant minority of black and Hispanic freshmen suffered from "stereotype vulnerability," which the authors define as "disengagement from school work that stems from fears of living up to negative stereotypes of minority intellectual inferiority."[87] These students were much more likely than other students from poor and low-income backgrounds to fail at least one course their first semester.

Increase Quality and Coverage of Prekindergarten[88]

Because of the strong evidence that poor, low-income and minority students are, on average, not well-prepared for college, we propose several measures that may increase their ability to succeed in postsecondary institutions. We first draw attention to the view, held by many scholars, that waiting until high school may be too late.[89] Cognitive and socio-emotional differences between middle-class children and poor and minority children appear by age three and are even more apparent at age five, when students enter school.[90] Given these substantial differences in intellectual skills that are present when poor children enter the school years, it is entirely possible that high-quality early education programs would do as much to prepare poor and low-income children for the academic rigors of college as programs during the school years. The widely admired Abecedarian preschool program in North Carolina, for example, produced significant impacts on attendance at four-year colleges and universities.[91] On the other hand, given the tendency of the cognitive gains in such programs to fade over time, and given the limited numbers of young people who will likely have access to high-quality early education, there remains a pressing need for K-12 programs that can enhance the intellectual, scholarly, and social skills of poor and low-income students.

Establish Culture of College-Going in Schools

With or without prekindergarten, an important part of a program to prepare students for college is for teachers and guidance counselors to do everything possible to convince individual poor and low-income students that postsecondary education would help them get good jobs and earn more money, and that it takes hard work to prepare to succeed at the postsecondary level. The message to students should be that they can qualify for financial aid that will allow them to pay for postsecondary education. Principals and vice-principals should work with teachers and guidance counselors to establish a set of principles and a specific plan for providing this encouragement on a routine basis beginning at least by ninth grade. As students move into the higher grades, the school should have a plan for identifying low-income students who are especially talented and focus even greater effort on their academic preparation and subject matter knowledge. As shown by the Ellwood and Kane study, there are a substantial number of students from the bottom and next-to-bottom quartiles of family income whose test scores indicate they could qualify for a four-year college. An even larger number of poor and low-income students could do well at less competitive four-year colleges and community colleges.

Recent years have seen an increase in postsecondary enrollment by students, including those from poor and low-income backgrounds. Even better, much of this increased enrollment has been in four-year institutions. The National Center for Education Statistics expects these trends to continue and predicts that postsecondary college enrollment will increase by 13 percent by 2017.[92] These increases in enrollment are almost certainly related to the remarkable doubling from 40 percent in 1980 to 80 percent in 2002 in the number of high school students—including poor and inner-city students—who say they hope to earn a bachelor's degree or higher.[93] This finding convinces us that there is widespread desire to attend postsecondary institutions among poor and low-income students. This desire establishes a solid foundation upon which to build our plan for boosting postsecondary education.

Improve Academic Preparation for College Coursework

However, enrollment is only half the battle. Far too many poor and low-income students leave college before completing the requirements for a degree. Thus, high schools, especially urban high schools, must offer and push their students to enroll and succeed in math, English and science courses that will provide them with the knowledge and analytic skills to succeed in college. Schools should be encouraged to use innovative techniques to convince low-income students to take and work hard in these courses. For example, a well-evaluated program in Texas that paid both students and teachers for student success in passing advanced placement courses produced

a 30 percent increase in the number of students scoring above 1100 on the SAT or above 24 on the ACT as well as an 8 percent increase in the number of students going to college.[94] Similarly, the Chicago Public Schools have developed a host of high-quality programs aimed at boosting college enrollment and success among inner-city students.[95]

The Texas pay-for-performance and Chicago programs are by no means the only model programs that interested K-12 schools could consider adopting to promote academic achievement. In fact, programs designed to prepare poor and low-income students for college go back at least to the original Higher Education Act in 1965. Since then, both government programs and programs initiated by individuals and groups in the private sector have multiplied. Five of the best-known programs are summarized in Table 6. These programs begin as early as elementary school, some involve activities in the community, some involve summer and after-school programs, some involve tutoring and mentoring, and some involve promises of financial aid for college. In short, it would be difficult to think of an approach to boosting the academic preparation and college readiness of poor and low-income students that has not been incorporated by one or more of these programs.

TABLE 6

Overview of College Preparation Programs

GEAR UP "I HAVE A DREAM"

Year Established	Sponsoring Agencies	Budget 2008 (Millions)	Number of Projects	Student Targets
1998	Higher education agencies; local education agencies; state education agencies	$303	197	K–12; Postsecondary

Projects	Evaluation
Grant program designed to increase the number of low-income students who are prepared to enter and succeed in postsecondary education; provides six-year grants to states and partnerships to provide services at high-poverty middle and high schools; funds are also used to provide college scholarships to low-income students	ACT Evaluation (2005): GEAR UP students had slightly greater changes in overall academic performance from grade 8 to grade 10; slightly more likely to be on track to be college-ready in English and Reading; slightly more likely to take the core high school curriculum or to have plans for college

TALENT SEARCH

Year Established	Sponsoring Agencies	Budget 2008 (Millions)	Number of Projects	Student Targets
1967	Higher education agencies; local education agencies; nonprofits; state education agencies	$143	471	Grades 6–12

Projects	Evaluation
Tutorial services, career exploration, aptitude assessments, counseling, mentoring programs, workshops, information on postsecondary institutions, and help with college application	Mathematica (2006): Students participating in the program were more likely than nonparticipants from similar backgrounds to be first-time applicants for financial aid and were more likely than nonparticipants to enroll in a public college or university in their state

...continued

TABLE 6

Overview of College Preparation Programs (...continued)

Upward Bound

Year Established	Sponsoring Agencies	Budget 2008 (Millions)	Number of Projects	Student Targets
1964	Higher education agencies; local education agencies; nonprofits; state education agencies	$328	825	Grades 9–12; Adults (military veterans only)

Projects	Evaluation
Academic instruction in mathematics, laboratory sciences, composition, literature, and foreign languages. Tutoring, counseling, mentoring, cultural enrichment, and work-study programs also are supported	Mathematica (2004): No effect on enrollment at postsecondary institutions or postsecondary credits earned by students overall; program may have increased enrollment in four-year colleges by about six (6) percentage points but the evidence is not statistically conclusive. Consistently showed a positive impact on students who, when applying for the program, did not expect to earn a B.A. degree; has limited overall impact on students' academic preparation for college, but staying in the program longer is associated with better student outcomes

Project Grad

Year Established	Sponsoring Agencies	Budget 2008 (Millions)	Number of Projects	Student Targets
1988	Nonprofits (working with public schools)	$0[a]	205	Grades K–16

Projects	Evaluation
Non-profit entity coordinates with entire school system to provide a consistent and quality education in reading and math curriculums in elementary school (feeder schools); encourage community involvement through mentoring, tutoring, and event sponsorship	MDRC Evaluation (2006): At the initiative's flagship school, Project GRAD had a statistically significant positive impact on the proportion of students who completed a core academic curriculum on time. As Project GRAD expanded into two other Houston high schools, these positive effects on students' academic preparation were not evident. Outcomes at the newer Project GRAD high schools improved, but was matched by progress at the comparison high school

Upward Bound Math-Science

Year Established	Sponsoring Agencies	Budget 2008 (Millions)	Number of Projects	Student Targets
1997	Higher education agencies; public and private agencies	$31	54	Grades 9–12

Projects	Evaluation
Summer programs with intensive math and science training; counseling; computer training; scientific research under faculty supervision	Mathematica (2007): The program improved high school grades in math and science; increased the likelihood of high school students taking chemistry and physics; increased the probability students would enroll in selective four-year institutions; increased the chances students would major in math and science; and increased the probability of completing a four-year degree in math or science

Sources: U.S. Department of Education, Office of Postsecondary Education; ACT Inc., 2007; Project GRAD; MDRC, 2006; U.S. Department of Education, 2006; Olsen and others, 2007.

[a] *Project GRAD does not currently receive federal funding but has in the past.*

The programs highlighted in Table 6, all of which have received federal funding at some time, have been in operation for many years and have been evaluated by reasonable designs (see "Evaluation" box in Table 6). Although these programs differ somewhat, they all involve an emphasis on college-preparatory courses and tutoring or other extra preparation outside the regular class schedule. Some also start as early as the elementary years, some provide scholarships, and some provide college counseling. Only one of the evaluations found strong evidence of higher enrollment in or graduation from college. The evaluation of the Upward Bound Math-Science program found several program effects, including slightly higher college grades in math and science courses, a boost in the number of students who majored in math or science, and an increase in the probability of completing a four-year degree in math or science.

The other programs failed to find evidence of students taking more college-preparatory courses, getting better grades, or increasing their rates of high school graduation. Project GRAD, one of the best known of the programs, focuses on reading and writing, includes enhanced professional development, starts students as early as elementary school, and offers scholarships to students who perform well. When Project GRAD programs in Houston, Columbus, Ohio, and Atlanta were studied using an appropriate research design by MDRC, a well-known research firm in New York City, the results were somewhat discouraging. There was some evidence of more students completing a curriculum of academic subjects in the original Houston site, but when the program was expanded to two additional schools even this impact faded. There was no evidence in any of the schools of elevated high school graduation rates or rates of college enrollment. Given these results, it is not surprising that the respected "What Works Clearinghouse" run by the U.S. Department of Education concluded that Project GRAD had "no discernible effects on progressing in school or on completing school."[96]

Similarly, the federal Office of Management and Budget reviewed evaluation evidence on most of the federal programs included in Table 6 and concluded that few of the programs had solid evidence of positive impacts.[97] The evidence does show that a small number of programs can boost high school achievement and college entry, but more programs fail than succeed.

Given the tepid results produced by these and similar college preparation programs, we recommend that over a period of five years or so, the federal programs summarized in Table 6 be reformed so that the funding is consolidated into a broad grant program that would allow any of the college preparation approaches now allowed by the separate programs but would base funding decisions on performance.[98] One option is for Congress to require the Secretary of Education to propose a system of evaluation and data collection that includes standardized test performance, success in getting poor

and low-income students enrolled in postsecondary institutions, and success in achieving terminal degrees as the basis for funding decisions. Current programs would have five years to maximize their performance on these outcomes, but after five years proposals from current sponsoring organizations and new organizations would be submitted to the Secretary and funds would be awarded on a competitive basis. Public schools, private schools, colleges (both two-year and four-year), and other entities would be allowed to compete for funds. An emphasis in selecting programs for funding would be on programs that have a good plan for subjecting their efforts to evaluation that includes success in sending students to college and in producing students that stay in college long enough to receive a degree.[99] The Secretary should emphasize the importance of data on college performance and graduation for all programs. Thus, programs that participate in longitudinal data collection systems of the type described below would have a competitive advantage.

Build State Longitudinal Data Systems[100]

We emphasize longitudinal data systems because the best outcome measure of college preparation programs is graduation from college. Schools cannot know whether they are having impacts on college completion unless they develop data systems capable of following their students into and through college. Some states have already taken modest steps in this direction. A prime mover in the attempt to build these data systems is Achieve, Inc., a bipartisan, nonprofit organization formed by governors and business leaders in 1996.[101] Achieve works with states to raise academic standards, improve assessments, and promote accountability. Among other goals, Achieve's American Diploma Project, in which 34 states now participate, is working to hold high schools accountable for graduating students who are ready for college or careers and who are capable of completing the requirements for a college degree.[102]

One of the most promising actions of the American Diploma Project is the development of a data system, already adopted by nine states and soon to be adopted by additional states, that tracks the progress of students from kindergarten through college graduation. According to Achieve's 2008 annual report, this data system will allow greatly improved assessment of the extent to which individual high schools are sending their students to postsecondary institutions and, equally important, of the success of students once they arrive on campus. Achieve and the American Diploma Project are now working with the Data Quality Campaign, the National Center for Higher Education Management Systems, and the states to create these data systems.[103] Given the many obstacles to building the systems, including costs, outdated systems that must be updated or replaced, and the difficulty of getting all states to agree to adopt compatible systems, it is to be expected that an arduous process requiring many years lies ahead. Several of these state data programs are receiving financial support from the Statewide Longitudinal Data Systems Grant Program being operated by the National Center for Education Statistics.[104]

An important benefit of building a comprehensive data system like the one Achieve and its collaborators are trying to create is that it would permit researchers to conduct studies of the relationship between student characteristics, experiences, and performance in high school and their postsecondary achievements, especially college enrollment and graduation. The field of helping poor and low-income students succeed in college is still not well developed and, as we have seen, has not yet created programs that are notably successful in boosting either college enrollment or graduation. Thus, correlational studies can provide useful information about the types of school programs and student performance that are associated with postsecondary achievement. Even better, the existence of a data system that could follow students into college clears the way for experimental studies based on random assignment that can provide gold standard evidence of the success of programs in preparing poor and low-income students for the rigors of college work.

SELECTING AND PAYING FOR COLLEGE

Research shows that low-income and minority students as well as students who are the first in their family to attend college have difficulty knowing which colleges they might be able to enter, how to pick a college from among the realistic possibilities, and how to obtain financial aid.[105] Students can become so frustrated or intimidated that they do not apply to colleges or, if they apply, fail to show up when classes begin. Most middle- and upper-income students have parents who have been through the process of selecting colleges and who can offer guidance. Many of these parents visit potential colleges with their children and accompany them to the campus admissions office so they can get a first-hand view of the campus and learn about possible courses of study. In fact, many wealthy parents hire experts in college selection and admission, and pay as much as $5,000 or more, to help their sons and daughters select good schools, prepare to take the SAT, and meet all the qualifications for admission.[106] However, poor and low-income students often find themselves caught in a swamp of information, doubts, and the feeling that they do not quite know whether they should attend college, which colleges to consider, or whether they could get the money needed to attend. They need help.

■ Improve College and Financial Aid Counseling in High Schools

Thus, every high school should have trained counselors and teachers who will help these students select and apply for colleges and financial aid. Schools should not overlook advantaged students, but helping poor and low-income students select a college and apply for financial aid should be a high priority. College preparation efforts should include information about a wide variety of colleges and universities

the students might attend as well as help in selecting schools and applying for both admission and student aid. Research shows that schools serving predominantly low-income and minority students have more than 1,000 students per counselor compared with the national average of about 500 students per counselor.[107] Learning the ropes of advising students about college preparation, college selection, and obtaining financial aid is a complex undertaking and requires specialized training. Even so, states and local school districts should do everything possible to ensure that poor and low-income students have access to competent counselors beginning at least by the ninth grade.

Advising poor and low-income students about college selection and financing is another area that has seen impressive innovation. Programs like the Coach program at Harvard and the Strive for College program founded at Washington University in St. Louis mobilize undergraduate students to advise public school students in college selection and receipt of financial aid.[108] The undergraduate "counselors," who have themselves recently endured the rigors of preparing college application and aid forms, work with high school students throughout the senior year to help them select a college and apply for aid. Although these programs have not been evaluated, their use of student counselors saves money. They can supplement the work of full-time guidance counselors who should be responsible for figuring out effective and efficient ways to use these student mentors. Another remarkable program aiming to supplement the efforts of public school counselors is the National College Advising Corps, which trains recent college graduates to work full-time in schools to advise poor and low-income students in college selection and financing.[109] The Advising Corps now has chapters on 13 college campuses in 12 states and plans to advise 30,000 low-income students in 2009. These and similar innovative and low-cost programs appear to be growing rapidly and have the potential to expand the reach of regular school counselors at a reasonable price. States and localities should take full advantage of these and similar programs.

■ Simplify Application for Federal Aid and Provide Early Notification to Families[110]

Recall that the process of applying for student aid is initiated by the student completing the FAFSA, a complex and confusing form issued by the U.S. Department of Education. Usually the student and her family do not know how much aid they have received until the spring of the senior year of high school. The aid package they are eventually offered is usually substantial, thereby providing encouragement to pursue a college education—exactly the effect we are urging. Simplicity of application and timeliness of information about aid are important criteria and should have a much greater impact on the aid application process. Families can then understand that their aspirations for their child to attend college can become a reality.

One mechanism for promoting ease and timeliness is to simplify the application for aid and the complex set of federal aid programs, as recommended by both the Spellings Commission and the Rethinking Student Aid Study Group sponsored by the College Board. We propose scrapping the FAFSA and basing federal grants on only adjusted gross income (AGI) from tax forms and family size.[111] The Rethinking Student Aid group laid out detailed recommendations for eliminating the FAFSA and using information from the Internal Revenue Service (IRS) to qualify students for federal aid automatically. All families would need to do to initiate the student aid process is to send a simplified form to the Department of Education and include an authorization that the IRS release information from the families' tax documents.[112] In addition, the Rethinking Student Aid group recommends that the IRS be required to send an estimate to every family with a dependent child that files a tax return of how much federal aid the child would get if she were going to college. Receipt of timely information based on a greatly simplified student aid application form may increase the chances that poor and low-income families and students will take planning for college more seriously.

Reform The Pell Grant Program

Turning to the all-important grant programs themselves, we note that the Rethinking Student Aid group made several pertinent recommendations for reforming the Pell Grant. The Pell Grant is the centerpiece of federal grant aid and now provides about $15 billion per year for college expenses to low-income students (see Table 2). We support the Rethinking Student Aid group's recommendation that the Pell Grant provide its maximum benefit to families at 150 percent of the poverty level and below and then phase out the benefit between 150 percent and 250 percent of poverty. This structure of the grant, with a maximum payment of $5,000 in the 2008-2009 school year, ensures that benefits are confined to the neediest students. As the Rethinking group points out, these reforms would greatly simplify the Pell Grant and would allow families to easily estimate the amount of money they would receive. In fact, if Pell is based only on AGI and family size, families would know the amount of grant money for which they would qualify by looking at a simple table for families their size that has only two columns, one for AGI and one for the amount of the Pell award their child would receive.

Terminate Redundant Grant Programs

Another sensible and simplifying reform would be to increase Pell Grants by terminating the Supplemental Education Opportunity Grant, the Academic Competiveness Grant, and Smart Grant programs (Table 2). This action would not only simplify the federal grant application process, but would also save administrative costs and hassle for the federal government and colleges and universities. We would plough the approximately $1.4 billion of savings from ending these grant programs back into the Pell Grant. These funds could finance the simplification initiative proposed above as well as

the costs incurred by the IRS and Department of Education in sending Pell Grant information to parents. Remaining funds could raise the maximum Pell Grant above $5,000 with ripple effects for students receiving less than the maximum grant.

In addition to consolidating and simplifying existing programs, more resources will be needed to address the needs of poor and low-income students for help in attending college. Indeed, simplifying the application process will likely raise the demand for financial aid over time, and these demand increases should be met with more resources. The federal government should also consider making Pell Grants an entitlement for all qualifying individuals, rather than relying on annual appropriations increases to handle the greater flow of applicants who request them.[113]

■ Provide Stipends for Older Students

The federal and state governments should provide stipends to low-income individuals, especially working parents with children, who can benefit from college but cannot afford to lose work time in order to attend. For adults who return to two-year or four-year college as part of an effort to improve their workforce skills, a range of additional supports and services might be necessary to link them to the economic sectors and employers where they can make good use of these skills. This can be done by strengthening the workforce system funded by the Workforce Investment Act (WIA), perhaps in ways outlined in Holzer's 2007 paper for the Hamilton project.

■ Expand the Income-Based Loan Repayment System

Given the rising costs of college and the declining ability of grant aid to cover these rising costs, student loans are and will continue to be an important part of college financing for many students, especially students from poor families. Knowing that loans must be repaid, a low-income student about to graduate from high school may be intimidated by the idea of taking on $10,000, $15,000, or more in debt to complete a college degree.[114] A reasonable approach to convincing students in this situation that they are unlikely to be weighed down by debt is to highlight a repayment system that places a modest burden on students when they graduate and face repayment. In 2007, Congress created an income-based repayment (IBR) system in which payments are applied first to interest, then to loan fees (if applicable), and then toward reducing principal. An attractive feature of the IBR is that the maximum payment is capped at 15 percent of a student's monthly discretionary income.[115] Because discretionary income is defined as the difference between adjusted gross income and 150 percent of the poverty level for a family the size of the family maintained by the student, if the student has started or wants to start a family, he can count on his monthly payments being reduced. Further, because the maximum payment is tied to income, students do not need to worry about trying to find a high-paying job in order to repay their student loans. Another attractive

feature is that former students who maintain their payments can stop making payments after a maximum of 25 years. Even better, if the student enters a public service occupation such as teaching, the maximum repayment period falls to 10 years.

The Rethinking Student Aid Study Group has recommended two changes in the IBR that we support. Total debt, regardless of the buildup of interest if students cannot make their payments due to unemployment, disability, or other causes, should be capped at 150 percent of the original loan. This feature provides yet another reassurance to students from poor families who must borrow to complete their education because even failure to repay their student debt in timely fashion will not throw them into a hopeless pit of debt. The second change is to reduce the maximum repayment period from 25 years to 20 years. Again, this change provides further limits on the total amount of money students must repay, thereby increasing low-income students' confidence in the wisdom of borrowing money to obtain a postsecondary degree.

Reform State Financing of Postsecondary Education

Finally, we support a radical proposal offered by Haveman and Smeeding.[116] In recent years, four-year colleges and universities have tended to admit more students and provide them with assistance based on merit, an admissions approach that tends to raise the share of students from wealthy families because these are the students who earn the highest grade point averages in high school and receive the highest scores on standardized tests. In response, Haveman and Smeeding recommend that state legislatures shift the state funding provided to colleges and universities away from lump sum payments and toward vouchers for low-income students that could be used only at in-state colleges and universities. This approach would push institutions of higher learning to attract low-income students by providing them with additional aid and attractive curriculum opportunities. The federal government could stimulate use of higher education vouchers of this type by offering matching payments to states that provided, say, 25 percent of their appropriations for state colleges and universities in the form of vouchers for low-income students. We recommend that Congress create an initial $500 million pot for federal matching payments to states that adopt this recommendation; states would be eligible for subsidies in proportion to their share of all low-income students in the nation they support at their state colleges and universities.

STAYING IN COLLEGE

Even if junior and senior high schools improve the academic performance of poor and low-income students, the process of large-scale improvement is likely to be slow and there will always be students who arrive at the college door with inadequate academic skills. Their lack of skills is a major reason so many poor and low-income students drop out of postsecondary institutions before receiving a terminal degree. Thus, an essential component of a plan to increase the share of students from low-income families achieving a college degree is to develop programs that help them stay in college.[117] Table 7, based on recently available data, shows what many people have long suspected; namely, that most schools are doing a poor job of graduating black students. Only 2 percent of over 1,000 reporting institutions graduated 90 percent or more entering black students while 64 percent graduated 50 percent or fewer.[118] Similar results apply to students from poor families.

TABLE 7 **Four-Year Colleges and Universities with the Best, Average, and Lowest Graduation Rates for Black Students, 2006**

Institution	2006 Six-Year Graduation Rate		
	Black Students	White Students	Black-White gap
Best			
University of Michigan	71	90	-19
College of New Jersey	57	88	-31
University of Wisconsin	57	79	-22
Michigan State University	54	78	-24
The Citadel	53	72	-19
Average			
Saint Xavier University	46	66	-20
Villa Julie College	45	65	-20
Seton Hall University	40	60	-20
Geneva College	39	60	-21
Gwynedd Mercy College	38	79	-41
Lowest			
Medaille College	13	39	-26
Friends University	11	48	-38
East-West University	10	50	-40
Felician College	10	44	-34
Davenport University	7	28	-21

Source: Carey, 2008, p. 10.

Because of these and similar data, a number of postsecondary institutions, especially community colleges, are developing innovative programs designed to reduce the dropout problem. One of the most extensive of these programs was established in 2003 by the Lumina Foundation for Education. Called "Achieving the Dream: Community Colleges Count," the initiative focuses on students with the highest dropout rates—those from low-income families and minorities. At most recent count, 82 institutions in 15 states had joined the initiative.[119] Each participating school creates its own program, typically after a group of faculty and administrators have studied transcripts and talked with students and professors to better understand the problem.

In one such program conducted at Kingsborough Community College in Brooklyn, participating freshmen are placed in groups of about 25 students to form a "learning community." They take at least three of their courses together, usually including remedial English, another course, and a special one-credit freshman orientation course. The instructors work together to integrate the courses, often giving common homework assignments. Students also receive a voucher to purchase books. The first group of students in the learning community achieved higher passing rates than did students in the control group, and in interviews said they felt more integrated into college life. Students who failed both the reading and writing tests given at entry to Kingsborough were more than twice as likely to pass both tests at the end of the first year if they were in the learning community group, although they dropped out after one year at the same rate as control students. Even so, in the last semester of the two-year follow-up, more learning community students than controls were still enrolled.[120]

An even more impressive program is the Louisiana Scholarship Program operated at two community colleges in New Orleans: Delgado Community College and Louisiana Technical College-West Jefferson. Students at these two schools were offered a $1,000 reward for each of two semesters if they attended school at least half time and earned at least a C grade-point average. Students who received the payments were more likely to enroll full time, passed more courses and earned more credits, and had higher rates of continuing enrollment in the second and third semesters after payments began.[121]

Not all the good news about retention and progress toward degrees comes from community colleges. One of the most impressive programs in the country is at Florida State University (FSU), a large Division I university.[122] The FSU program is aimed at reducing the disparity in graduation rates between blacks and whites. FSU has established a new center, called the Center for Academic Retention and Enhancement (CARE), with the exclusive responsibility of recruiting and preparing poor and low-income students to enter the university and then to perform well when they arrive. The program is initiated by identifying promising poor and low-income students as

early as the sixth grade. FSU officials then begin meeting with the students' counselors to encourage them to help the students take college preparatory courses. They also encourage the students to attend summer programs at the FSU campus to provide additional instruction in basic subjects and to acclimate them to the college environment. In the summer before their freshman year, admitted students attend a free summer session of six weeks duration. Throughout the academic year, the students become part of what students refer to as a "family" as they participate in social events, award ceremonies, and bi-monthly discussions of topics such as adapting to college and keeping up with homework.

The result of this all-encompassing effort is that FSU has a graduation rate for black students that exceeds the state average for black students—including a historically black college located only one mile from the FSU campus—by 17 percentage points and the national average by 30 percentage points. Although the program has not been well evaluated, the graduation rate of its students seems to indicate the program is successful.[123]

■ Provide Federal Incentive Grants for Innovative College Persistence Programs

The CARE program at FSU, like the Kingsborough Community College program in New York, shows the potential impacts of programs that seek to disseminate information about the academic requirements of college to young students in secondary schools, as well as efforts to foster improved social supports and networks for lower-income students while they attend college. We recommend that the federal government provide incentive grants to selected states willing to make some of their funds for colleges and universities contingent on college completion rates. All states provide major funding for postsecondary institutions, yet no state now makes its funding contingent on performance. In an age of increasing expectations of accountability for performance of public programs, providing lump sums to postsecondary institutions without requiring measures of effectiveness is an anachronism. We recommend that the Secretary of Education be provided with $200 million to negotiate with selected states and provide grants to states that are willing to provide some of their postsecondary funding to institutions based on their graduation rates of poor, low-income, and minority students. The details of the selection process, the benchmark graduation rates, the size of expected improvements, and the size of subsidies should be left up to the Secretary, with the caveats that the Secretary be required to establish rigorous and reliable criteria for performance data on admission and graduation rates as well as evidence that institution standards were not lowered to increase graduation rates.

The evidence reviewed here on campus-based programs shows that it is possible for colleges themselves to help students compensate at least partially for knowledge and skills they missed in high school. However, reviewing the literature on the impacts of programs once students reach college leads to the impression that truly powerful results will require better preparation before students arrive at college. Even so, we strongly support campus-based programs and believe the evidence indicates that greater success is possible.

CLARIFYING FEDERAL POLICY AND RESEARCH

As Kane argued in 1999, a major problem with the nation's policy on postsecondary education is that our goals are not clear. We strongly endorse Kane's suggestion that a major goal "would be to increase the college enrollments of low-income youth," with the caveat that we think graduation rates are just as important as enrollment.[124] To put Kane's recommendation into action, we recommend that the Secretary of Education make promoting college enrollment and completion by poor and low-income students an official goal of the nation's education policy. Two actions would put the force of federal authority behind the goal. The first is to begin an annual series of reports based on the best data available to draw attention to annual progress in meeting the goal. The annual report should be issued by the Office of the Secretary and should be given wide circulation, initiated by a high-profile press conference at which the Secretary would release the annual report. The second action is to direct the Institute of Education Sciences to launch a research program to determine the impacts of federal grant, loan, and tax programs on the college enrollment and graduation rates of poor and low-income students. At the top of the list of priorities should be research on the impact of Pell Grants. Many highly skilled researchers have already conducted impressive studies of the impacts of grant programs. With adequate resources, they would teach us a great deal about the strengths and weaknesses of the programs designed to equalize educational opportunity for poor and low-income students and suggest new ways to fulfill the nation's traditional promise of opportunity for all.

ENDNOTES

[1] These returns are based on family income rather than individual earnings because family income is the usual basis for measurement of intergenerational mobility and because family income reflects other sources of non-earned income as well as patterns of household formation. However, the differences in income across educational groups and their trends over time are very similar to those that appear when we focus on individual earnings.

[2] Duncan, Kalil, Mayer, Tepper and Payne, 2005 and Rothstein, 2004.

[3] Ashenfelter, Harmon and Oosterbeek, 2000.

[4] The rate of return is the ratio of money gained or lost on an investment compared with the amount of money invested. The rate of return is usually given as the annual rate. For example, if an investment of $100 returned $5 per year, the rate of return would be 5 percent.

[5] Among the factors complicating estimates of returns to education are tuition costs, taxes, uncertainty, and the distribution of earnings gains (some individuals will gain more from college than others). Although researchers have provided some estimates of how these factors alter rates of return to schooling, the results are not yet definitive. Still, even after taking account of many factors, authors generally find very high rates of return to education. See Carneiro, Hansen and Heckman, 2003; and Heckman, Lochner, and Todd, 2008.

[6] Wolfe and Haveman, 2002.

[7] Isaacs, Sawhill and Haskins, 2008.

[8] Freeman, 1976.

[9] These calculations use estimates of the "elasticity of substitution" between college and non-college workers, along a stable demand function, to estimate the effects of shifting relative labor supply on the relative earnings of these groups. According to Hamermesh (1996), a reasonable estimate of this elasticity is 1/5. However, these estimates remain quite uncertain, and most are based on studies that have lumped all workers with some college less than a bachelor's degree together with high school graduates and dropouts.

[10] Goldin and Katz, 2008.

[11] Haskins, 2008a, Figure 6. To increase the reliability of the income measure in both the adult and child generations, we average incomes across five years within each group, parents in the late 1960s and early 1970s and their adult children in the late 1990s and early 2000s. Based on inflation-adjusted 2006 dollars, the figure portrays the incomes of adult children with parents in the lowest income quintile (below $40,300), the second quintile (between $40,300 and $62,000), the middle quintile ($62,00 to $84,000), the fourth quintile ($84,000 to $116,700), and the top quintile (above $116,700).

[12] Kane and Rouse, 1999.

[13] In addition to the college enrollment and completion gaps by race, ethnicity, and income group that we examine in this report, a new "gender gap" has emerged. Young women are more likely than young men to enroll in and complete college in every major racial and ethnic group, with the largest gaps found among African Americans. These gaps appear to reflect disparities between the sexes in test scores and grades that develop long before college, along with behavioral issues affecting lower-to-middle income boys. Because these gaps are not well understood by social scientists, and because they seem to develop quite early in life, the policies we propose do not explicitly address these issues. However, we should continue to explore the causes and consequences of the new gender gap in higher education, and consider efforts that target the specific barriers and disincentives experienced by low-income boys wherever they occur. See Hill, Holzer, and Chen, 2008.

[14] There appears to be modest improvement in student persistence in working toward a college degree. If persistence is defined as still being in college five years after enrollment, there is a slight increase in five-year persistence. Students may be decreasing their college dropout rates but taking longer to complete their degree (perhaps even more than five years). However, the data provide no more than a suggestion. Those interested in increasing educational opportunity for poor and low-income students should still be greatly concerned about the college dropout rate. See Horn and Berger, 2004.

[15] Haskins and Sawhill, forthcoming.

[16] Ellwood and Kane (2005, p. 294) also analyzed the postsecondary enrollment of students by parents' income quartile and high school test scores for any postsecondary enrollment (two-year college, four-year college, and vocational training). The results showed the same patterns as the results using enrollment only in four-year colleges shown in Figure 5; namely, higher enrollment by students from families with higher income; higher enrollment by students with higher test scores; and at each given level of test scores, students from families with higher income had higher percentages of enrollment than students from lower-income families. For students performing in the top test score tertile, for example, from the lowest to the highest family income quartile the postsecondary enrollment percentages were 82, 90, 95, and 96.

[17] Completing even one year of college generally improves the student's long-term earnings, and thus it might be better for students to enroll in college without completing it than never to enroll at all. Nonetheless, we believe, as Ellwood and Kane's 2005 study suggests, that a number of potentially good students from poor families could complete college and go on to make solid contributions to the economy and their own economic mobility if they were better prepared for college and received help selecting a college at which they could perform well.

[18] Charles Murray (2008) has recently argued that too many American youngsters go to college. He thinks most of them lack the ability to profit from the rigors of a proper college education and that they should instead acquire skills that would allow them to earn a decent living through apprenticeships and other experiences in the labor market and in short-term training. Murray would then have the nation focus more attention and resources on the roughly 20 percent of youngsters who are gifted. He would reform the educational system so that it demands more from the top 20 percent. We agree that apprenticeships and other training and work experiences that lead to skilled employment are important. But we also believe that a much higher share than 20 percent of youngsters can profit from college and can graduate and qualify for jobs with high pay. Further, we want to ensure that the vast majority of young Americans are pushed toward college and given the experiences and resources necessary to obtain a college education if they want one and are willing to work hard. Sacrificing some efficiency in exchange for increasing opportunity for all and second chances is a worthwhile bargain.

[19] Goldin and Katz, 2008. The argument that the levels of college education affect the productivity and competitiveness of the economy, over and above the returns to individuals with those degrees, assumes that educated workers generate positive "externalities" for the economy. See, for instance, Berry and Glaeser, 2005.

[20] Bowen, Kurzweil, and Tobin, 2005 and Organisation for Economic Co-Operation and Development, 2007, p. 38.

[21] Spellings Commission, 2006, p. 3.

[22] Friedman, 1962.

[23] A surprising report by investigative reporter Matthew Quirk (2005) explains the tactics used by top colleges to deter poor students and attract rich students to maximize tuition payments while maintaining high standards.

[24] Bowen, Kurzweil and Tobin, 2005.

[25] This count is based on 6 general grant programs based primarily on family income, 5 grant programs for veterans, 8 loan programs, and 12 tax programs. See Baum and Payea, 2008; Smole and Loane, 2008, especially Figure 1; Loane, 2008; and Jackson, P., 2007.

[26] Baum and Payea, 2008, p. 6.

[27] Spellings Commission on Higher Education, 2006, p. 3.

[28] For a discussion of the gradual expansion of the federal power in addressing social programs, often at the expense of the states, see Haskins, 2008b.

[29] Bound and Turner, 2002.

[30] Veterans Administration, State of Virginia, www.gibill.va.gov/GI_Bill_Info/history.htm.

[31] Bound and Turner, 2002, p. 785.

[32] Smole and Loane, 2008 and Loane, 2008.

[33] Johnson, 1966, p. 1.

[34] Gillette, 1996; Caro, 1990; and Dallek, 2004.

[35] Baum and Payea, 2008, p. 14.

[36] Rethinking Student Aid Study Group, 2008, p. 13.

[37] The American Recovery and Reinvestment Act of 2009, otherwise known as "The Stimulus Package," provides $15.6 billion to increase the maximum Pell Grant to $5,350 in 2009–2010 and to $5,550 in 2010–2011. President Obama's budget for 2010 indicates that the administration intends to continue these Pell increases.

[38] Baum and Payea, 2008, p. 14, Figure 12c.

[39] Statistical Abstract of the United States, 2009, p. 447, Table 677.

[40] There is a potential problem with the federal concept of "expected family contribution." What if a given student's family decides not to pay, as indeed many do? This family decision leaves a hole in the middle of the federal financial package that the student herself must fill, usually either by working or by taking out a loan—or a bigger loan that would have been required if the family had paid up. Worse, in many cases it means the student does not attend or must withdraw from college (if the family stops paying its expected contribution).

[41] Baum and Payea, 2008, p. 6; see also Smole and Loane, 2008.

[42] Smole and Loane, 2008, p. 17.

[43] National Association of State Student Grant and Aid Programs, 2008.

[44] Baum and Payea, 2008, p. 15.

[45] Institute for Higher Education Policy, 2005; Baum and Payea, 2008, p. 6.

[46] State Higher Education Offices. *State Higher Education Finance: Early Release FY 2008*, http://www.sheeo.org/finance.

[47] Haveman and Smeeding, 2006.

[48] For economists, the costs of college should include earnings foregone by attending school but should not include room and board, which would be required wherever the student lived. Although these two components may or may not offset each other, we use the conventional cost measures in this paper.

[49] Burtless and Haskins, 2008.

[50] In a virtual repeat of the intention of the Clinton Administration upon assuming office in 1992, in its 2010 budget the Obama administration proposed to make all new loans direct federal loans and to work toward abolishing the more expensive loans under the FFELP. This bold move has caused a fight in Congress as banks and their lobbyists try to save private loans that are so lucrative for private lending institutions. For interesting reviews of the battle between those who support the FFELP and those who favor direct loans, see New America Foundation, 2008; Wright, 2005; and U.S. General Accounting Office, 2003.

[51] Congressional Budget Office, 2005; U.S. General Accounting Office, 2003.

[52] In its 2010 budget, the Obama administration has proposed to substantially expand the Perkins loan program.

[53] Jackson, P., 2007.

[54] As is the case with the general support for state colleges and universities that we described earlier, these tax credits appear to be motivated by the desire of Congress to help the middle class. Middle-class parents are highly motivated to send their children to college and many of them help with costs. Thus, with costs rising at a remarkable pace, more and more middle-class parents put pressure on their elected officials to do something about college costs. President Clinton and Congress responded by enacting the tax credits. But as the analysis by Burman and his colleagues (2005) shows, in doing so they provided

virtually no help to students from poor and low-income families. These tax credits are in part regressive because they do not reach families with incomes too low to pay income taxes and partly progressive because they phase out at high incomes.

[55] Most recent data available are for 2006. See Internal Revenue Service, 2006, Table 1.3.

[56] An above-the-line deduction is subtracted from a tax filer's income to arrive at "Adjusted Gross Income" (AGI). A below-the-line deduction is subtracted from AGI. The former is generally more valuable because it will always reduce a filer's tax bill (assuming they have non-zero income taxes), but a below-the-line may not. If filers simply claim the standard deduction, below-the-line deductions do not help them.

[57] In the American Recovery and Reinvestment Act of 2009, the Obama administration and Congress replaced the Hope credit with a new tax credit that is partially refundable. The Obama proposed budget for 2010 shows that the administration hopes to continue this new credit.

[58] Burman and others, 2005, Tables 3 and 4.

[59] Baum and Ma, 2007, p. 11.

[60] College Board, 2008, Table 1. For data on median family income, see U.S. Census Bureau, "Historical Income Tables – Families." (http://www.census.gov/hhes/www/income/histinc/f07AR.html.)

[61] Economists often note that the costs of college attendance include the opportunity costs of earnings foregone by students as well as the direct costs of tuition and other expenses. Our discussion below focuses only on the latter. While foregone earnings are likely to be higher for the non-poor than the poor (because the former often have higher earnings capacity), the value or importance of these foregone earnings may be greater to those from poor families who have greater needs for income and lower savings on which to depend while their earnings are foregone.

[62] None of these figures includes the cost of room and board. Surprisingly, the cost of room and board is very similar for students at public two-year colleges and public four-year colleges, $7,340 for the former and $7,750 for the latter in 2008–2009. Adjusted for inflation, the cost of room and board had increased by 13 percent over the previous decade for two-year colleges and 27 percent for four-year colleges. The cost of room and board at the average private four-year college was $8,990 in 2008–2009, which represented an increase of 16 percent over the previous decade. See Baum and Ma, 2008, p. 11.

[63] Bound and Turner, 2002; Dynarski, 2003; Kane, 2003; and Dynarski, 2000.

[64] Dynarski, 2003.

[65] Dynarski, 2000.

[66] A subsequent unpublished study conducted by Cornwell, Mustard and Sridhar (2004) and his colleagues at the University of Georgia reported that the HOPE program increased college attendance by black students, an effect the authors attribute in part to the presence of many historically black colleges in Georgia. The major effect of the HOPE scholarship was to increase the share of high school graduates attending in-state colleges rather than leaving for colleges in other states. As for the effect of programs like Georgia's HOPE scholarship in boosting college attendance by youth from low-income families, the authors are clear in stating that the program has its major impact on students who would have attended college without the financial aid—again not the group of primary focus in this paper.

[67] Dynarski, 2003, p. 286. Other studies that review the literature on the effects of subsidies on college attendance include Kane, 1999, especially chapter 4 and pp. 114-119; Leslie and Brinkman, 1988, especially chapter 7 and appendix Table 6.

[68] Seftor and Turner, 2002.

[69] Hansen, 1983, p. 93.

[70] Kane 1999, p. 118 and Kane, 1994.

[71] Kane, 1999 and Turner, 2007.

[72] Kane, 1999, p. 152.

[73] Heller, 2008; Leslie and Brinkman, 1988; and Campaigne and Hossler, 1998.

[74] Heller, 2008, pp. 42–43 and Table 1.

[75] Baum and Payea, 2008, p. 11.

[76] Baum and Schwartz, 2006.

[77] Heller, 2008, p. 50.

[78] Campaigne and Hossler, 1998; Heller, 1997; and Perna, 2000, p. 137.

[79] Price, 2004; Monks, 2001; and Heller, 2008.

[80] Long, 2004.

[81] Holzer, 2007; Haskins and Sawhill, forthcoming; and Lerman, 2007.

[82] Another population whose attendance at college might be increased to promote economic mobility is the large pool of young high school dropouts whose current economic prospects are poor. Some new approaches, like the Gateways program in Portland, try to "recover" these young people and directly reattach them to programs at community colleges where they would finish their high school work and then move directly into college coursework. Unfortunately, the basic skills of these young people remain quite poor, and their ability to handle anything but remedial curricula is questionable. Still, if they can even obtain community college certificates in certain high-demand fields like health care, their employment prospects would improve considerably. At a minimum, we should encourage states to experiment with these kinds of programs, and provide rigorous evaluation evidence of their effects.

[83] Thernstrom and Thernstrom, 2003; Rothstein, 2004; and Chubb and Loveless, 2002.

[84] Parsad and Greene, 2003.

[85] Breneman and Haarlow, 1998.

[86] Roderick, Nagaoka, and Coca, 2009.

[87] Massey, Charles, Lundy, and Fischer, 2003, p. 206.

[88] Both the American Recovery and Reinvestment Act and President Obama's 2010 budget contained funds to expand preschool programs, Head Start, and Early Head Start.

[89] See, for example, Knedsen, Heckman, Cameron, and Shonkoff, 2006.

[90] Lee and Burkam, 2002.

[91] Campbell et al, 2002.

[92] Hussar and Bailey, 2008.

[93] Roderick, Nagaoka, and Coca, 2009.

[94] Jackson, C., 2007. Jackson uses non-experimental "difference-in-difference" methods in which college enrollment changes for program participants are compared to those of similar students who did not participate.

[95] Roderick, Nagaoka, and Coca, 2009.

[96] What Works Clearninghouse, 2007, p. 1.

[97] A typical example from the Program Assessment Rating Tool (PART) conducted by the White House Office of Management and Budget is OMB's conclusion about evidence supporting the Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) program: "The program, at this time, does not have sufficiently valid and reliable performance information to assess (whether directly or indirectly) the impact of the Federal investment." (http://www.whitehouse.gov/omb/expectmore/detail/10001037.2003.html.)

[98] In its 2010 budget proposal, the Obama administration promised to cut or eliminate programs with records of low performance.

[99] Efforts to strengthen curriculum at the high school level are laudable so long as they incorporate a broad approach to skill development, including the types of skills required for success in the workplace, skills emphasized in the 1991 report of the Secretary's Commission on Achieving Necessary Skills (SCANS). Course requirements should be demanding in ways that ensure that young people are prepared to become productive in the workplace, to succeed in occupational training, and to enter and complete college. Students should be able to document one or more of these sets of skills. See Secretary's Commission on Achieving Necessary Skills, 1991.

[100] The American Recovery and Reinvestment Act provided $250 million to expand longitudinal data systems.

[101] See "About Achieve," at www.achieve.org/AboutAchieve.

[102] Efforts to increase the rigor of the curriculum show promise, but there is some concern about whether the approach taken by the American Diploma Project is too narrow and inappropriately mandatory. Some of the requirements for high school graduation are not used widely in the workforce, while other skills that are necessary for success in the workplace are rarely measured, taught, or evaluated by high schools. Among those in the latter group are skills documented in the SCANS report, including problem-solving, teaching others, teaming and collaboration, allocating resources, interpersonal skills, personal responsibility, communication skills, ability to produce high-quality products, and self-direction. The opportunity to achieve high-level occupational skills should also be incorporated in the move toward increasing rigor. See Secretary's Commission on Achieving Necessary Skills, 1991.

[103] See www.dataqualitycampaign.org and www.nchems.org.

[104] See http://nces.ed.gov/programs/slds/.

[105] Roderick et al, 2008.

[106] Hu, 2008; see also www.getintocollege.com; www.college-connections.com; and www.college-pathways.com.

[107] Ramsey, 2008.

[108] See http://www.hks.harvard.edu/service/programs.htm and http://www.striveforcollege.org.

[109] See http://www.advisingcorps.org.

[110] In his 2010 budget, President Obama proposed to simplify the student aid application process although the exact nature of his proposal is not clear by the time this report was published.

[111] The Rethinking Student Aid Study Group recommends that the IRS compute a moving 3-year average of income to help smooth year-to-year variation in income.

[112] Rethinking Student Aid Study Group, 2008.

[113] In the American Recovery and Reinvestment Act, the Obama administration expanded Pell Grants and now appears to be intent on trying to convert the Pell Grant from an appropriated program to a mandatory program that could avoid the annual appropriations battle.

[114] The average student who graduates from college is $20,000 in debt; see Spellings, 2008.

[115] See www.finaid.org/loans/ibr.phtml. For an extensive analysis of income-based, income-sensitive, and income-contingent repayment systems, see Schrag, 2007.

[116] Haveman and Smeeding , 2006.

[117] Thanks to legislation enacted by Congress in 1990, there is now good information on college graduation rates broken down by sex and race. The legislation was designed primarily to force colleges and universities to report graduation rates for athletes because Senator Bill Bradley, a former Rhodes Scholar and All-American and All-Pro basketball player, came to realize that many major universities were admitting athletes only for their athletic ability and were ignoring—or even obscuring—their qualifications for college admission and their education once they reached the college campus. Bradley and many others in Congress believed that making public the strikingly low graduation rates of athletes at many colleges and universities would embarrass the schools and force them to be more responsible. The legislation also required the schools to report graduation rates by sex and race. The first complete set of data, released in 2006, reported the percentage of full-time students in various categories who graduated within six years after entering as freshman.

[118] Carey, 2008, p. 2.

[119] Brock et al. 2007.

[120] Scrivener et al, 2008.

[121] Brock and Richburg-Hayes, 2006 and Brock et al. 2007.

[122] Carey, 2008.

[123] Carey, 2008; Colavecchio-Van Sickler, 2007; and Maxwell, 2007.

[124] Kane, 1999, p. 89.

RESOURCES

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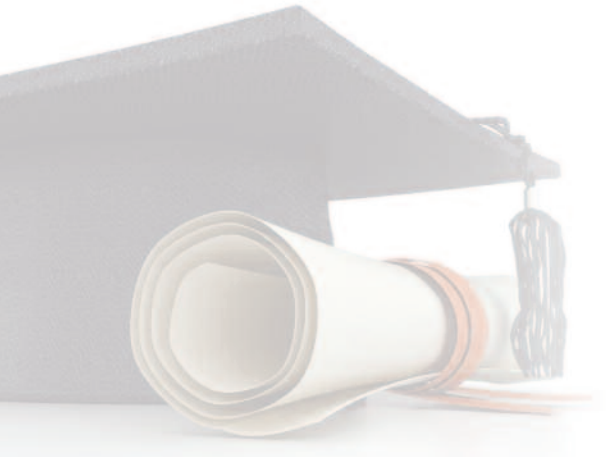
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ABOUT THE PROJECT

The Economic Mobility Project is a unique nonpartisan collaborative effort of The Pew Charitable Trusts that seeks to focus attention and debate on the question of economic mobility and the health of the American Dream. It is led by Pew staff and a Principals' Group of individuals from four leading policy institutes—The American Enterprise Institute, The Brookings Institution, The Heritage Foundation and The Urban Institute. As individuals, each principal may or may not agree with potential policy solutions or prescriptions for action but all believe that economic mobility plays a central role in defining the American experience and that more attention must be paid to understanding the status of U.S. economic mobility today.

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