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# Time for Change: A New Federal Strategy to Prepare Disadvantaged Students for College

*Ron Haskins and Cecilia Elena Rouse*

If more children from low-income families graduated from college, income inequality would fall and economic opportunity would increase. A major barrier to a college education for students from low-income families is that they are poorly prepared to do college work. Since the War on Poverty of the 1960s, the federal government has funded several programs to help prepare disadvantaged students to succeed in college. Evaluations show that these programs are at best only modestly successful. We propose to consolidate these programs into a single grant program, require that funded programs be backed by rigorous evidence, and give the Department of Education the authority and funding to plan a coordinated set of research and demonstration programs to develop and rigorously test several approaches to college preparation.

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To read the full report on postsecondary education in the United States, edited by Lisa Barrow, Thomas Brock, and Cecilia Elena Rouse, go to www.futureofchildren.org.

A college education offers substantial benefits, especially for children from poor and low-income families. Since the 1980s, the median family income of adults in their prime earning years has increased only for those with a four-year college or advanced degree. Equally important, young adults from families in the bottom fifth of income distribution (below about $20,000 per year) who achieve a four-year college degree are nearly 80 percent less likely to wind up in the bottom fifth themselves than are their peers who do not achieve a four-year degree. One of the most important strategies for reducing economic inequality and boosting economic opportunity, then, is to ensure that children from disadvantaged families who have the capacity to earn a college degree actually do so.

A primary reason that disadvantaged students have trouble both getting into college and completing a degree is that they are not academically prepared to do college work. One of the most striking aspects of the U.S. K–12 education system is the huge difference

in school achievement between white, Asian, and middle-income and upper-income students, on the one hand, and black, Hispanic, and lower-income students, on the other. Sean Reardon's careful analysis of data from nineteen nationally representative studies shows that the achievement gap between students from high-income and low-income families has grown in recent years and is now much larger than the gap between white and black students. This rising inequality in K–12 achievement based on family income parallels growing disparities in college enrollment and completion between students from high-income and low-income families. The Panel Study of Income Dynamics shows that only 34 percent of students from families with income in the bottom fifth enroll in college, compared with 79 percent from the top fifth and 68 percent from the next tier. Even worse, only 11 percent of students from the bottom fifth ever graduate, compared with 53 percent and 38 percent of students from the top two fifths.

## Preparing Students from Low-Income Families for College

Several strategies for boosting college preparation, enrollment, and graduation rates among students from low-income families have shown at least some evidence of success, including mentoring, counseling about college selection, help with finding financial aid, help with academic preparation for college, getting parents involved, and help with and counseling about coursework and other aspects of college life after students arrive on campus. Here we focus on academic preparation because we think better preparation for college coursework is the most direct strategy for boosting both college attendance and graduation rates of disadvantaged students. Without better academic preparation, other strategies will fall short.

In the Spring 2013 issue of the *Future of Children*, titled "Postsecondary Education in the United States," Andrea Venezia and Laura Jaeger use the National Assessment of Educational Progress to estimate the share of high school graduates who are prepared for college work. The National Assessment classifies student achievement as basic, proficient, or advanced. In 2009, only 21 percent of students eligible for the National School Lunch Program were proficient or advanced in reading, and only 10 percent were proficient or advanced in math. Among students from families with too much income to qualify for the school lunch program, 44 percent were proficient or advanced in reading, and 32 percent were proficient or advanced in math.

To help low-income and minority children better prepare for college, many schools, nonprofit groups, and governments at all levels have developed programs to augment the education provided by elementary and secondary schools. Though many of these efforts are similar or complementary, we focus our attention on federal programs, for two reasons. First, through its TRIO programs (Upward Bound, Talent Search, Upward Bound Math-Science, Student Support Services, and a few smaller programs), the federal government is a dominant presence among sponsors of programs that aim to prepare disadvantaged students for college. The TRIO programs are designed to augment disadvantaged students' academic preparation, give them direct experience with college work, or help them apply to colleges or seek financial aid. Together, all the federal college-preparation programs (including another major program, GEAR UP) cost more than $1 billion a year, a modest sum by federal program standards but surely the largest investment in college-preparation programs from any single source. Second, if we're going to spend $1 billion a year, we should accomplish a lot. If these programs are not successful, they should be reformed. In this section, we review how these programs developed and how they have been evaluated. In the section that follows, we recommend more productive ways to use the federal investment.

Like so many programs that aim to reduce poverty and boost opportunity, federal college-preparation programs expanded greatly during President Lyndon B. Johnson's War on Poverty. Johnson appointed John Gardner—who later became secretary of the Department of Health, Education, and Welfare—to lead a task force to recommend ways to help more students from low-income families enroll in college. The task force proposed giving these students grants to attend college and creating programs to ensure that they were academically prepared. The resulting legislation, contained in the Economic Opportunity Act of 1964 and the Higher Education Act of 1965, authorized the Upward Bound and Talent Search programs, as well as financial aid programs like the Educational Opportunity Grants.

The federal government later added several other college-preparation programs, including Upward Bound Math-Science in 1990 and GEAR UP in 1998, among others.

Though these programs differ in modest ways, the similarities are far more striking. All aim to help disadvantaged students graduate from high school, enter college, and complete a degree. The four programs provide funds primarily to colleges, but most also permit local education authorities and nonprofits to participate, especially as part of a consortium that includes a college. Further, all the programs' funds flow through competitive grants in which eligible institutions try to submit proposals that will impress reviewers and win the funding competition. The interventions that the programs use to prepare disadvantaged students for college differ in some ways, but all use a mixture of instruction, tutoring, and counseling. Upward Bound Math-Science focuses intensely on math and science preparation; most of the Upward Bound programs offer a summer school experience, often taught by college professors.

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## Evaluation of College-Preparation Programs

All of the major federal programs we discuss here have been evaluated, although the quality of the evaluations varies. The best evaluation is that of the oldest program, Upward Bound. In 1991, Mathematica Policy Research randomly assigned 1,500 students to an experimental group eligible to participate in the Upward Bound program and 1,300 students to a control group that was not eligible to participate. Data collection began in 1992 and continued periodically until 2004. Mathematica reported that, on average, Upward Bound had "no detectable effect" on whether students enrolled in college, the type or selectivity of the institution they attended, or the likelihood that they would apply for or receive financial aid. For some subgroups of students, however, there were significant effects on enrollment or completion. For example, Upward Bound students who did not expect to complete a four-year degree when interviewed at baseline, usually in their middle school years, enrolled in college and finished their degrees more often than did similar students who did not participate in Upward Bound. The Institute of Education Sciences (IES)—the research arm of the U.S. Department of Education—gave the Mathematica evaluation its highest rating, "meets evidence standards without reservations." Thus, in the best evaluation to date of a federal college-preparation program, Upward Bound had no detectable effect for most students.

Mathematica also evaluated the Upward Bound Math-Science (UBMS) program. Beginning in 1998, the researchers selected a random sample of UBMS students participating in the program between 1993 and 1995 to serve as the experimental group. These students were then matched with students who applied for the regular Upward Bound program but did not participate. The group selected from the UBMS program exceeded the matched comparison group on nearly all the important outcomes of college-preparation programs. Specifically, UBMS students were more likely to enroll in four-year schools, more likely to enroll in more selective schools, more likely to enroll in math and science courses, and more likely to graduate from four-year schools (although not with majors in math or physical science). However, the IES What Works Clearinghouse examined the evaluation and concluded that it "does not meet evidence standards." The IES rating reflects the inherent problems in using a matched comparison design to judge a program's impact.

Mathematica also evaluated Talent Search, using data from Talent Search programs in Florida, Indiana, and Texas. Again, the evaluation used a matched comparison design to compare students participating in Talent Search with students from the same or other high schools who did not participate. The sample included more than 6,000 students who

participated in Talent Search in the three states and more than 54,500 matched comparison students. Mathematica found several important differences between students who enrolled in Talent Search and those who didn't. Talent Search students in Florida, Indiana, and Texas were 68 percent, 33 percent, and 90 percent more likely, respectively, to become first-time applicants for financial aid; they were 38 percent, 13 percent, and 55 percent more likely to enroll in a public college or university. In addition, Talent Search students in Florida and Texas, though not in Indiana, were more likely to complete high school. The IES What Works Clearinghouse concluded that the evaluation met standards, but "with reservations." The findings are impressive, but because the evaluation was based on a matched comparison design and not random assignment, we should exercise caution when interpreting its results.

The final federal program we consider here is GEAR UP, which offers competitive six-year grants to states and school districts to provide college-preparation services in high-poverty schools. Starting no later than seventh grade, all students in a school participate in the program as a grade-level cohort. Services may include tutoring, mentoring, college field trips, teaching students about careers, counseling, teacher training, and educating parents about access to college. The program has been evaluated several times, but none of the evaluations offers data on college enrollment or completion. Perhaps the best study was the one by Jennifer Bausmith of the College Board and Megan France of Santa Clara University. They selected 173 GEAR UP schools and an identical number of matched non-GEAR UP schools and compiled seven years of cohort data for all of them. They compared the improvement in scores on three measures of college readiness (the Preliminary Scholastic Aptitude Test, the Scholastic Aptitude Test, and Advanced Placement) for the two groups of schools. The results were not consistent across tests or cohorts. Further, several problems in the research design make it hard for us to interpret the results, including the fact that the data are based on all students in a given school and not just disadvantaged students.

Unfortunately, our review shows that only one evaluation of a federal college-preparation program meets the IES standard for top-tier evidence without reservations, and this study shows no major effects on college enrollment or completion. Studies based on second-best designs seem to show a few effects, but the rules of social science say that we should think of these studies as suggestive rather than definitive.

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## What to Do

Half a century and billions of dollars after these federal college-preparation programs began, we are left with mostly failed programs interspersed with modest successes. Preparing disadvantaged students for college is still a major challenge, with no well-tested solutions in sight. That said, there are hints in some of the programs about what could make a difference: summer programs, mentoring, tutoring, parent involvement, and similar activities have sometimes been associated with higher college enrollment. These may be the threads from which we can begin to weave together a new kind of intervention program.

The Obama administration has been funding and expanding social programs that have good evidence of success and reforming or terminating programs that have proven unsuccessful—a major strand of innovative social policy. The administration has formulated evidence-based social initiatives to prevent teen pregnancy, boost parenting skills, enhance employment and training, encourage community-based social innovation, and reform education. We need intense evidence-based solutions to help prepare disadvantaged students for college as well. Thus we recommend a dramatic change in the way federal

college-preparation programs are funded, using an approach similar to that of the Obama administration's other evidence-based initiatives. We propose a five-step reform. First, we propose that the $1 billion the federal government spends annually on college-preparation programs be consolidated into a single grant program. In this sense, the change we propose is similar to the Obama administration's reform of Head Start, in which every Head Start grantee in the country risks losing its money if it does not perform at a high level. Similarly, in order to keep their federal funding, those who receive college-preparation grants would need to show, based on rigorous analysis of their performance, that they are helping disadvantaged students enroll in and graduate from college. The administration argues that accountability for results should infuse the nation's social policy; we are proposing another step in that direction.

Second, the U.S. Department of Education should publish a funding announcement stating that any two-year or four-year college, any local education authority, or any nonprofit or for-profit agency with a record of conducting education interventions is qualified to compete for grants from the college-preparation funds. Sites with existing programs could apply for funds, but their applications would be considered on a competitive basis like everyone else's.

Third, the department would make clear that evidence supporting the proposed intervention would be a crucial factor in determining the awards. Applicants would have to:

- Demonstrate that they were using evidence-based interventions. Reviewers would closely examine the rigor of any evaluation studies the applicants cite as evidence.
- Demonstrate that their organization has a history of conducting programs that improve some measure or measures of college preparation, for example, by raising high school achievement scores, boosting performance on any of the college-readiness tests, or increasing college enrollment or completion. Again, applicants would have to explain the source of their data and the research design used to show that their program works.
- Present a detailed plan for evaluating the program, including how they would use data as feedback to improve it.

IES researchers would review evidence from the applications. The funding announcement would make it clear to applicants that more rigorous evidence qualifies for more money.

Fourth, the department would be able to decide how to distribute the money among various approaches to helping disadvantaged students prepare for college. It would have the flexibility to use up to some maximum percentage of the funds (perhaps 20 percent) to support approaches, such as the current Student Support Services program, that help disadvantaged students once they arrive at college. The department would make it clear in its funding announcement that it intends to fund promising approaches that have at least some evidence of success, and that it intends to fund a broad variety of approaches (for example, summer programs, mentoring, supplemental course work, tutoring, help picking colleges or applying for financial aid) to establish a set of evidence-based methods that other organizations could replicate.

Finally, the department would use up to 2 percent of its annual funds ($20 million) to plan a coordinated program of research and demonstration, featuring large-scale random-assignment studies, that would determine whether well-defined interventions or specific activities (such as mentoring, tutoring, etc.) actually increase college enrollment and completion. Unless we invest in a coordinated set of research and demonstration programs, college-preparation programs are likely to continue their poor performance, as the fifty-year history of these programs shows. All entities that received funds under the grant program would have to agree to participate in the department's demonstration and research programs, although the department would be able to recruit education agencies or third-party research organizations to perform research and demonstration as well.

Some will think our recommendations harsh. But social policy should be based on evidence, and everything we know leads to the view that many, if not most, social programs produce modest or no effects. The Obama administration's reform of Head Start shows that a major ingredient of evidence-based policy is to reform or terminate ineffective programs. We should apply the same tough-minded approach to college preparation.

## Additional Reading


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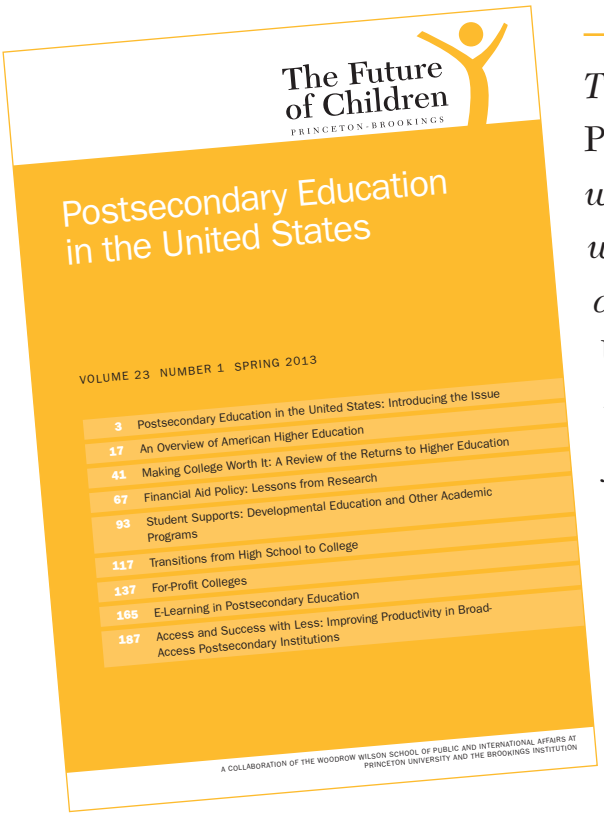


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