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Testimony

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HIGHER EDUCATION

Grants Effective at Increasing
Minorities' Chances of
Graduating

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Mr. Chairman and Members of the Subcommittee:

We are pleased to be here today to discuss our ongoing work on the relationship between changes in student financial aid and low-income student persistence in pursuing higher education. As college tuition has risen dramatically over the past 15 years, grant aid to students has not kept pace, and loans account for an ever-increasing proportion of student aid. These trends have raised concerns that access to higher education is diminishing for low-income students. Being disproportionately represented among this group of students, minorities may be adversely affected despite the efforts that colleges make to recruit and retain them.

The policy goal of promoting access to higher education is inextricably related to facilitating student persistence. Initial enrollment increases among certain groups has limited value if those students never complete their educations. Our work focuses on persistence; specifically, how increases in different types of financial aid affect the willingness and ability of minority students to remain in college from semester to semester and eventually graduate. The results we are presenting today are based on our analysis of data from the High School and Beyond data set, a large, nationally representative sample of students who graduated from high school in 1980. The data set includes a wide range of variables describing the student and his or her family, as well as information on postsecondary schooling, costs, and financial aid. It also incorporates follow-up information for these students from 1982, 1984, and 1986.

In summary, our preliminary results indicate that supplying additional grant aid will generate higher graduation rates for some minorities; however, increasing loan aid will not. For example, on average, providing an additional \$1,000 grant in a given semester would lower the probability of an African-American or Hispanic student dropping out of school in that semester by about 7 and 8 percent, respectively; the same increase in loan aid would not influence their likelihood of dropping out.

The shift in federal funding from grants toward loans may initially save budget dollars but cost the economy in the long run. Both grants and loans reduce the current outlay required of the student and his or her family. However, because of principal and interest repayment, unlike grants, loans do not reduce the net cost of education to the student over time. While the federal cost of a grant exceeds that of a loan of an equivalent amount, grants may be more cost-effective if they better encourage students to finish their college education and, as a result, increase their earnings potential.

We specified a hazard regression model to analyze student persistence, estimating the probability of a specific event--in this case, dropping out of college--occurring over a period of time. We followed students from the time they first enrolled in college to the time they either graduated or dropped out. The

probabilities that appear in the results relate to the probability of dropping out, and we estimated the effects of certain financial aid, student, and family variables on that probability. Our analysis was limited to those students who entered a 4-year college immediately after graduating from high school; we did not look at the initial decision to enroll. We analyzed data on whites, African-Americans, and Hispanics separately to determine whether the factors affecting persistence vary by group.¹ We focus our discussion here on the results for African-Americans and Hispanics, with occasional comparisons to the results for whites.

BACKGROUND

The promotion of equal educational opportunity--access to and choice among schools--is the most widely cited federal role in postsecondary education. Student aid programs constitute the federal government's chief tool for achieving this equity goal. In the past 15 years, direct federal student aid has increased by over 25 percent in real (inflation-adjusted) terms and currently exceeds \$25 billion. Despite this extensive intervention, the percentage of minorities graduating college continues to lag behind that of whites. For example, in a nationwide sample of high school seniors graduating in 1980, 21 percent of whites, 10 percent of African-Americans, and 7 percent of Hispanics had earned bachelors degrees 6 years later. Other data show that among 25- to 29-year-olds, 25 percent of whites, compared with only 16 percent of minorities, had completed at least 4 years of college education in 1991.

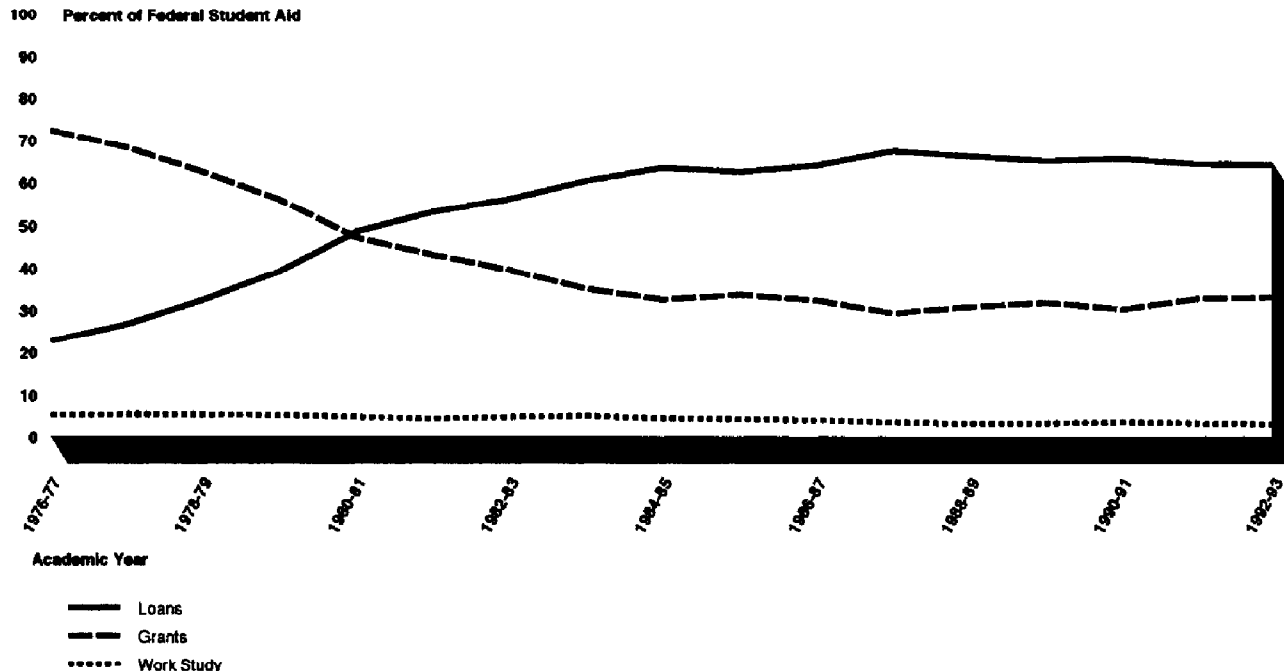
Two recent phenomena have converged to place an increasing financial burden on students and their families. First, college tuitions increased greatly at both public and private schools during the 1980s. Between 1980 and 1990, the average cost of attendance at public and private colleges rose by 109 and 146 percent, respectively. These increases substantially surpassed the rise in the consumer price index (about 59 percent) and outpaced gains in the median family income (about 73 percent) during the same period. Second, federal student financial assistance has shifted from being mostly grants to mostly loans since the late 1970s. In fact, since 1985, loan aid has been about twice as much as grant aid each year (see fig. 1).² Of an estimated \$25 billion in federal student financial assistance in academic year 1992-93,

¹Because the numbers of Asian-Americans and Native Americans in the sample were not sufficiently large to generate reliable statistical results, we did not analyze data pertaining to these groups.

²The biggest decreases in grants have come in two specially directed programs, social security benefits and benefits for veterans, which together accounted for 45 percent of federal student aid in academic year 1977-78 and 4 percent in academic year 1992-93.

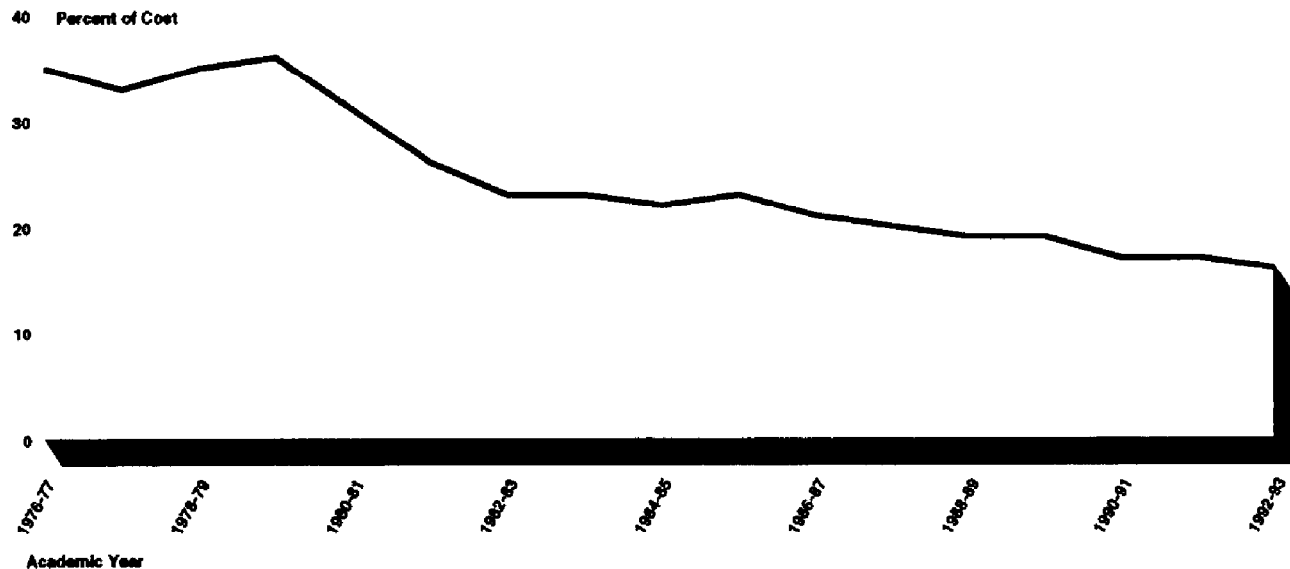
\$8 billion were grants and \$16 billion loans. The remainder, less than \$1 billion, was for work study.

Figure 1: Loans Now Make Up Greater Share of Federal Student Financial Aid Than in the Late 1970s



Pell grant awards, the basic federal grant program for low-income students, remained approximately level in constant dollars from 1980 to 1987, although in more recent years total awards have increased. Combined with tuition increases, the result has been an erosion in the ability of Pell grants to pay for tuition. In 1981, the maximum Pell grant covered 31 percent of the average cost at a private 4-year school, while coverage dropped to 16 percent in 1993 (see fig. 2).

Figure 2: Maximum Pell Grant Covers Decreasing Percent of Cost at an Average Private 4-Year College



Prior research has examined the effects of grants on the decision to enroll in college. Several studies have found that grant levels have no clear effect on enrollment for African-Americans or low-income students.³ However, less research has been conducted on the question of persistence--that is, once students begin college, what factors influence their decision to remain in college until they graduate?

ADDITIONAL GRANTS INCREASE PERSISTENCE;
MORE LOANS HAVE NO EFFECT

Our work to date suggests that increasing grant aid is more effective than increasing loan aid in reducing a minority student's probability of dropping out. Our results predict lower dropout rates for African-American and Hispanic students who receive grant awards above the mean level, but dropout rates are not significantly affected by commensurate increases in loans. These

³See Manski, Charles F., and David A. Wise, College Choice in America (Cambridge, MA: Harvard University Press, 1983), and Kane, Thomas J., "College Entry by Blacks Since 1970: The Role of College Costs, Family Background and the Returns to Education" (mimeo, Harvard University, 1992).

estimates control for other factors, such as student ability and family background.

Additional Grants Are Effective in Increasing Persistence

Minority students receiving additional grants in a semester have a lower probability of dropping out in that semester. For example, for a given semester, an African-American student who receives a grant \$1,000 greater than the average grant level has a 7-percent lower probability of dropping out than one receiving the average grant award.⁴ Similarly, a Hispanic student has an 8-percent lower probability of dropping out in a semester if grant aid is increased by \$1,000. These differences are both statistically significant.

The semester-by-semester effects are cumulative across the 4 or 5 years typically needed to obtain a college degree. For example, an African-American student receiving the average grant award has a 25.2-percent chance of dropping out within the first 3 years of college--that is, the student has only a 74.8-percent probability of still attending at the beginning of the fourth year. If the grant level is raised by \$1,000 per semester over the first six semesters, he or she has about a 76.3-percent probability of still attending into the fourth year. This approximate 1.5-percentage-point increase would translate into about 5,500 additional African-American students from the 1992-93 entering class remaining in college into their fourth year, given the approximately 370,000 African-American students beginning college in that academic year.⁵

For Hispanics, the results are similar. At the average grant level, 66.6 percent of Hispanic students persist to begin their fourth year in college. Increasing grants \$1,000 per semester for six semesters, raises the probability to 68.8 percent. Because about 240,000 Hispanic students entered college in 1992-93, these results would translate into about 5,400 additional Hispanic

⁴All dollar figures have been converted to 1993 dollars.

⁵These projections are based on certain assumptions about the student: The baseline assumptions are that the student is a male full-time student in a 4-year college, attended high school in a nonurban area in the south, had As and Bs for high school grades, came from a family with four members and family income of less than \$12,000 per year, and had parents with less than a college-level education. The base-year test and the percent of high school class going on to college, as well as tuition, grants, and loans, were all held at mean values. The actual effect would be different as the results are evaluated for each specific category of student--for example, for men and women and for students from families of different sizes and income levels.

students from that year's entering class persisting into their fourth year.

Additional Loans Do Not Affect Persistence

Our results show that increasing loan aid does not significantly influence the probability of a minority student's dropping out. An African-American student receiving a \$1,000 increase in loans above the mean level in a semester actually has a slightly higher probability of dropping out relative to one receiving the average loan amount. A Hispanic student has a lower probability of dropping out if loans are increased. However, neither difference is statistically significant. For whites, by comparison, additional loans do significantly reduce the dropout probability, but by a lesser amount than a grant increase of the same size.

Other Factors Contributing to Student Persistence

Student preparation for college and family background were other important predictors of dropout probability. Factors contributing to student persistence for all groups included

- high test scores,
- good high school grades, and
- graduating from a high school that sent a high percentage of its graduates to college.

In addition, some family background factors significantly reduced dropout percentages. For example, Hispanic and white students from families with income of over \$67,000 were both more than 50 percent less likely to drop out in a given semester than those with family incomes under \$12,000. For African-Americans, parents' education was significant: having at least one parent who graduated from college decreased the dropout probability by 34 percent.

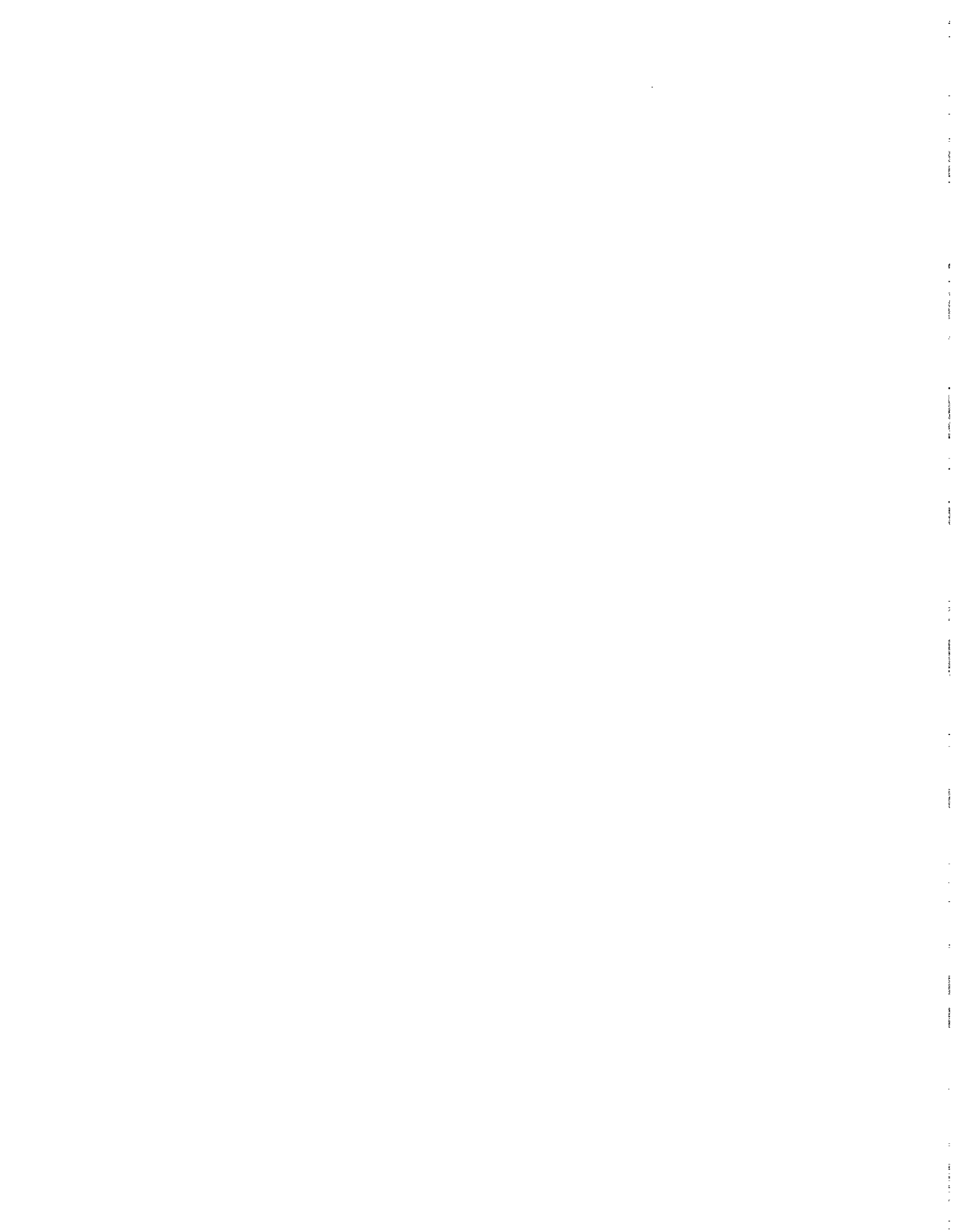
OBSERVATIONS

The result that additional grants are more effective than additional loans in encouraging minority student persistence has intuitive appeal. It supports anecdotal evidence that students are increasingly worried about debt accumulation and do what they can to avoid extensive borrowing. This response potentially has a direct effect--reluctance to borrow to cover tuition costs--or an indirect effect--working excessive hours during the school year and being unable to complete academic work--and may lead to dropping out of college altogether. In addition, because parents' educational attainment and family income are significant predictors of persistence for some students, failure to complete college by one generation may have consequences for the next generation, leading to inequalities that persist over time.

Our ongoing work will explore these issues further. In addition to more detailed results from the analysis discussed here, we anticipate providing results of two other studies. First, we are conducting an analysis that will suggest whether or not the timing of grant aid plays a role in student persistence--that is, can persistence be encouraged by using more grant money in the student's first year or two and then providing loans as the student approaches graduation? Second, we are analyzing interviews of students and discussion group sessions with financial aid officers from 12 colleges and universities around the country. The results will allow us to gain insight into the reasons for students making certain decisions related to borrowing, working, and persistence. We expect to issue a final report this fall.

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This concludes our statement. We will be glad to answer any questions you may have.



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