
Evaluating HOPE-Style Merit Scholarships ¹

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Since the early 1990s, there has been a proliferation of state-sponsored, merit-based college scholarships. Eligibility for the awards typically involves satisfying a grade-point-average requirement in high school, and retention usually depends on meeting a similar GPA standard in college. Another standard feature of these scholarships is that they do not impose means tests. The model for these new state programs has been Georgia's HOPE (Helping Outstanding Pupils Educationally) Scholarship.

State policymakers commonly defend "HOPE-style" merit aid by arguing that it will increase access to colleges and universities, keep the best students from attending college out of state, and encourage academic achievement in high school and college. We evaluate the policymakers' arguments in terms of the empirical support from Georgia for each of these effects. We also examine whether merit scholarships like HOPE increase college stratification by student quality.

THE GEORGIA MODEL

Georgia's HOPE Program was introduced in 1993, financed by a state lottery. The program distributes two types of financial aid—the merit-based scholarship and the HOPE Grant. To qualify for the scholarship, a student must graduate from a Georgia high school with at least a B average in core-curriculum courses. The scholarship covers tuition and fees and provides a \$300 book allowance at degree-granting public institutions. Currently, the value of the award is about \$4,600 at the state's top universities, accounting for over 40 percent of the total cost of attendance. HOPE scholars at degree-granting private institutions receive a fixed payment of \$3,000. Once in college, students must maintain at least a B average with a minimum number of credits to retain the award. In contrast, the HOPE Grant has no merit requirements, but its coverage is limited to tuition and fees associated with nondegree

programs offered by two-year and technical schools. Since its inception, the program has paid out more than \$3.5 billion in financial aid to over 900,000 students. Forty-five percent of all awards and 60 percent of total aid go to scholarship recipients attending four-year colleges and universities.

As discussed in Cornwell and Mustard (forthcoming), lottery sales far outpaced early projections, leading to a significant expansion of the HOPE program in terms of coverage and generosity. The most important changes were the elimination of the income cap and of the Pell "offset." Initially, the scholarship was restricted to students from households with incomes less than \$66,000, but the income cap was raised to \$100,000 in 1994 and removed entirely in 1995. In the beginning, HOPE payments were also reduced dollar-for-dollar by any Pell aid the student received. This offset ended in 2001; now students who qualify for both Pell and HOPE can "stack" their awards, providing an even more powerful incentive to attend a Georgia college or university. Most of the states with recently established HOPE-style merit scholarships have generally followed Georgia in leaving out means tests and allowing merit awards to be stacked with Pell aid.

ENROLLMENTS AND THE "BRAIN DRAIN"

Cornwell, Mustard, and Sridhar (forthcoming) examine HOPE's effect on enrollments and the "brain drain" by comparing enrollments in Georgia with those in other southeastern states before and after the program's introduction. Using Integrated Postsecondary Education Data System (IPEDS) data from the National Center for Education Statistics covering the period 1988–97, they show that HOPE raised enrollment in Georgia's colleges and universities and reduced the number of students leaving the state to attend college elsewhere.

Table 1 reports the percentage increases in freshman enrollment attributable to HOPE, broken down by race and institution type, as estimated by Cornwell et al. First, the overall enrollment effect is 5.9 percent, which translates into almost 2,900 extra students per year. Second, the gains are concentrated heavily in four-year schools, with the greater percentage gain in private colleges. Indeed, the magnitude of private-school increase is surprising. One explanation is that the small, moderately selective liberal arts colleges, which comprise a large fraction of the state's private schools, face relatively elastic demand because many similar substitutes operate in proximity to Georgia. Third, the percentage increases of blacks exceed those of whites, with the greater enrollment response for blacks appearing in four-year public colleges. The black enrollment gains are accounted for in part by the students who, instead of leaving the state, chose from the many relatively large, historically black colleges and universities in Georgia, which has the fourth-largest black population and population share in the United States. There is also a program-induced rise in technical school enrollment for blacks (where there is none for whites).

Analyzing the IPEDS student residency and migration data, Cornwell, Mustard, and Sridhar find that HOPE reduced the number of Georgians attending college out of state by about 560 per year. This is a pure scholarship effect because the migration data cover only freshmen in four-year schools who recently graduated from high school. The reduction in "leavers" from the state makes up roughly two-thirds

of the total enrollment effect for this group, which accounts for almost 77.5 percent of all first-time freshmen in Georgia's four-year colleges. However, recently graduated freshmen represent only roughly 40 percent of the total four-year-school enrollment rise, implying that the greater enrollment response occurred among freshmen who delayed matriculation for a year after high school graduation.

Finally, the overall enrollment increase reported by Cornwell, Mustard, and Sridhar represents only 15 percent of freshmen scholarship recipients between 1993 and 1997 and an even smaller fraction of all first-year program (scholarship plus grant) beneficiaries. This should not be surprising because programs like HOPE primarily affect where, not whether, a student goes to college.

COLLEGE STRATIFICATION BY STUDENT ABILITY

In addition to reducing the number of leavers, HOPE has changed their composition. Figure 1 plots the SAT series for freshmen enrolled in Georgia's public colleges and universities, Georgia high school seniors, and U.S. high school seniors. Since HOPE began, Georgia's freshman SAT scores have increased by a remarkable 60 points. By comparison, the scores of Georgia and U.S. high school seniors rose by only 30 and 20 points, respectively. Further, between 1993 and 2000, Georgia's retention rate of students with SAT scores greater than 1500 climbed from 23 percent to 76 percent.

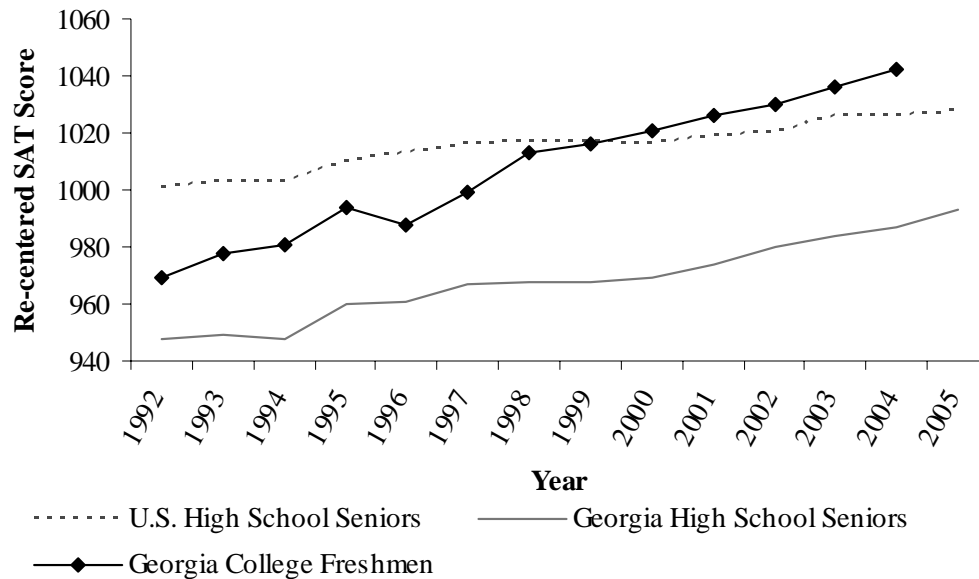
Table 1: Percentage Increases in Freshmen Enrollments Attributable to HOPE by Race and Institution Type, 1988–97

Group	Overall	4-Year Publics	4-Year Privates	2-Year Publics	2-Year Publics + Techs
All	5.9	9.0	13.0	ns	ns
Whites	3.6	4.4	9.2	ns	ns
Blacks	15.8	26.0	16.8	ns	11.6

Note: 'ns' indicates the estimated effect is not statistically significant.

Source: Cornwell, Mustard, and Sridhar (forthcoming).

Figure 1: SAT Scores of Georgia College Freshmen vs. U.S. High School Seniors and Georgia High School Seniors, 1990–2003



Source: Cornwell and Mustard (forthcoming).

The gains depicted in figure 1 obscure how students are sorted across institution types. Resources available early in life are important in determining a student's prospects for admission to a selective college or university. Thus, to the extent that merit is correlated with household income, programs like the HOPE Scholarship will further stratify higher education by student ability.

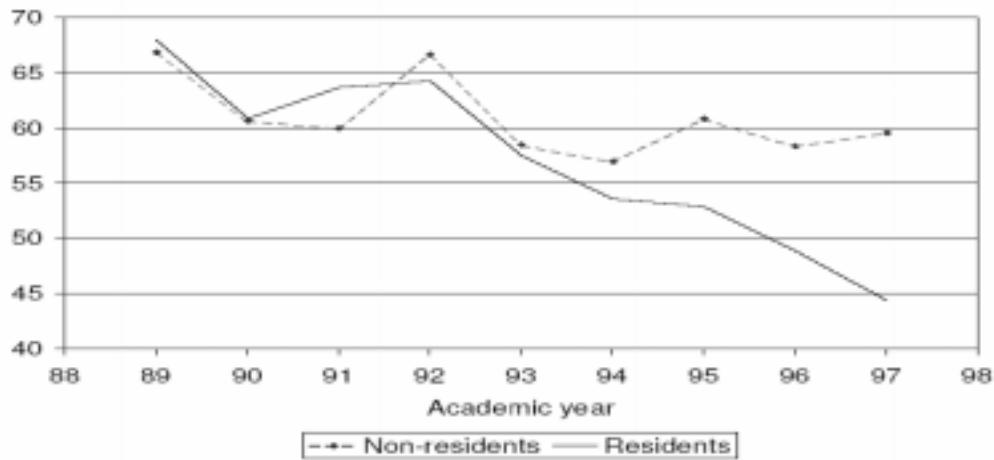
Cornwell and Mustard (2005) address the stratification question using data covering the period 1989–2001, obtained from *Peterson's Guide to College*, to compare student quality in Georgia colleges with that of their southeastern U.S. counterparts. First, we find that in the state's most selective universities, SAT verbal and math scores jumped by 14.3 and 9.4 points because of HOPE. The scholarship also increased these schools' share of students from the top 10 percent of their high school class by 7.6 percentage points. In contrast, the least-selective schools experienced no statistically significant effect from HOPE on any measure of student quality. Second, we show that HOPE reduced the variance of SAT math and verbal scores in the most-selective institutions, but had no impact on the variances at any other institution type. Taken together, these results strongly suggest that HOPE has exacerbated the stratification of enrollment by student quality.

ELIGIBILITY REQUIREMENTS AND ACADEMIC ACHIEVEMENT

The requirements for HOPE eligibility and retention effectively put a premium on maintaining a 3.0 GPA in high school and college. Does this promote academic achievement or encourage other choices that can hinder learning? To the extent the GPA standards for eligibility and retention increase effort and time spent on schoolwork, they enhance learning. If, on the other hand, they cause students to enroll in fewer classes, withdraw from classes more frequently, select courses with higher expected grades, or choose certain majors, their salutary effect on learning may be seriously weakened.

Using data from the longitudinal records of all undergraduates who enrolled at the University of Georgia between 1989 and 1997, Cornwell, Lee, and Mustard (2005a) estimate the effects of HOPE on course-load adjustments by comparing the decisions of in-state and out-of-state students before and after HOPE was implemented. Nonresidents cannot receive the scholarship and therefore constitute a control group. This approach is illustrated in figure 2, which shows the trends in the percentage of resident and nonresident freshmen completing full course loads. From 1992 (the year before HOPE started) to 1997, the resident full-load completion rate dropped almost 20 percentage

Figure 2: Percentage of Freshmen Completing a Full Load Residents vs. Non-Residents, 1989–97



points, while the nonresident rate remained fairly stable around 60 percent.

The broader findings of the Cornwell, Lee, and Mustard study can be summarized as follows: First, HOPE decreased full-load enrollment and increased course withdrawals among resident freshmen. The combined result of these responses is a 9.3 percent lower probability of full-load completion and an almost one-credit reduction in annual course credits completed. Consequently, between 1993 and 1997, resident freshmen completed more than 3,100 fewer courses because of the HOPE Scholarship. Second, the scholarship has the greatest influence on the course-taking behavior of students who are just meeting or falling below the GPA requirement. Third, the scholarship's impact has grown with the lifting of the income cap; by 1995, virtually all resident freshmen entered as HOPE Scholars, while only 35 percent did in 1993. Fourth, HOPE caused Georgia residents to divert course-taking from the regular academic year to the summer, when grades are generally higher, even though the typical summer-school enrollee has a lower SAT score and high school GPA. After HOPE was introduced, summer-course credits increased by an average of 63 and 44 percent in the first two summers following matriculation.

Cornwell, Lee, and Mustard (2005b) go beyond course-load adjustment to examine HOPE's effect on course and major selection. Using the same University of Georgia student-record data, they show that resident freshmen and sophomores completed roughly 1.2 fewer math and science core-curriculum

credits because of the scholarship. In addition, they present evidence suggesting HOPE increased the likelihood of a typical resident freshman choosing an education major by 1.2 percentage points, with an even greater impact on women and whites. The scholarship's influence on declared majors is potentially costly because earnings are so closely tied to that choice.

The average GPA of University of Georgia resident freshmen rose 5 percent relative to their out-of-state counterparts during the HOPE period. The results of the Cornwell, Lee, and Mustard study suggest that more than just greater effort or time spent studying may be at work. Rather, HOPE's grade-based retention requirements lead to behavioral responses that partially undermine the scholarship's objective to promote academic achievement.

CONCLUDING REMARKS

Our findings concerning the effects of HOPE-style merit aid are obviously confined to the Georgia experience. The degree to which they generalize to the other states that have adopted similar programs depends on how closely they have followed the HOPE model. Those that have will likely see enrollment effects that largely involve college choice rather than access (with its implication for stratification), because such merit awards target students who will probably attend college anyway. The pattern of enrollment gains will be a function of the number and quality of its schools, notably its four-year institutions. This is particularly important for reducing the "brain drain" because students do not typically leave

the state to attend two-year colleges. As far as academic achievement is concerned, relying heavily on grade-based eligibility and retention criteria will lead to student responses that undermine that objective. Many of the scholarships started in the mid-1990s have this characteristic, although the most recent limit the number of semesters or academic years they can be used, reducing the incentive to lower per-semester course loads.

Finally, we speculate that the proliferation of HOPE-like scholarships, especially in the southeast, may take on the characteristics of an “arms race.” In the limit, each state competes to retain its best students, with the students allocated to schools that would, if not for the scholarship, be less attractive to them.

ENDNOTE

¹ Christopher Cornwell based his remarks at the conference on this paper.

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