

THE GEORGIA HOPE SCHOLARSHIP

By Victor Chen

Abstract: In 1992, Georgia unveiled the HOPE (Helping Outstanding Pupils Educationally) program, a merit-based scholarship for state residents funded entirely through a state lottery. Since then, the immense popularity of the program has induced many states to try and capture Georgia's success with their own lottery-funded scholarship program. While billed a success, there remain several questions about the effectiveness of the HOPE program. This article examines HOPE's impact and asserts that the program may not prove to be the unqualified success that many proponents claim.

INTRODUCTION

In 1992, Georgia introduced a new type of merit-based scholarship program that created incentives for student academic achievement at multiple levels. Georgia's HOPE (Helping Outstanding Pupils Educationally) program is a merit-based scholarship that was described by *The Chronicle of Higher Education* as "the most generous state student-aid program in the nation" (Zapler 1994, A34). By 2003, at least six other states had their own merit-based scholarship modeled on the Georgia program (Creech 1998).¹ Twenty-two other states "have placed [merit-based scholarships] on their policy agenda" (Henry and Rubenstein 2002, 93). In fact, some of these initiatives not only mirror the idea but also attempt to capitalize on the success of the Georgia scholarship by using the same name (Bugler, Henry, and Rubenstein 1999).

Interestingly, while the implementation of state merit-based scholarships may prove politically popular, the effectiveness of such programs is still relatively unproven (Rubenstein and Scafidi 2002). While the educational and social benefits of the program—in terms of rising college attendance by low-

income students and the increased number of Georgia high school graduates who attend Georgia colleges and universities—are significant, this article asserts that the overall gains attributed to the scholarship program may not be as great as advertised.

WHAT IS HOPE?

In 1991, the Georgia General Assembly amended the state constitution to permit state-run lotteries. The next year, the assembly passed the Georgia Lottery for Education Act to dictate how to spend the added revenue and established the Georgia Lottery Corporation to oversee this process. This corporation would use 65 percent of lottery revenues to cover operating costs and the state would use the remaining 35 percent to fund the construction of educational facilities, pre-kindergarten programs, technology for educational facilities, and merit-based scholarships. Since its inception in FY 1992, the percentage of lottery revenues for merit scholarships has risen from about 20 percent of total lottery revenues (less operating costs) to over 35 percent in FY 1999 (Brackett, Henry, and Weathersby 1999). What is politically attractive about HOPE is that it does not raise taxes, appealing to wealthier voters, and it is merit-based, thus more defensible than programs using other selection criteria.

The HOPE scholarship is distributed to Georgia students based on academic performance. Prior to HOPE, most student aid programs followed the federal pattern of need-based aid. The federal Higher Education Act of 1965 and the subsequent Higher Education Act of 1970 both attempted to address the

Victor Chen completed his Master of Public Policy degree, with a concentration in national security policy, from The George Washington University in May of 2004. He earned a Bachelor of Arts degree in history from the University of Michigan in 1993. Prior to returning to graduate school, Mr. Chen taught middle school in the Atlanta Metropolitan area.

hazards articulated by President Johnson of having a talented student “turned away [from college] because his family is poor” (Wolanin 2001, 4). As a result, most federal student aid programs, such as Pell Grants and Stafford Loans, focus on financial need. HOPE represents a shift away from this philosophy, creating incentives for students to perform academically, so that they can increase their chances of attending college. Currently, Georgia high school graduates with an overall B average (3.0 grade point average, or GPA, on a four point scale) in core academic courses receive the scholarship which covers tuition, fees and a \$150 per semester book allowance if they attend a Georgia public college or university² (Bugler, Henry, and Rubenstein 1999). An eligible Georgia high school student attending a Georgia private college or university receives \$3,000 per academic school year and an additional \$1,045 Georgia Tuition Equalization Grant (provided by funds outside of HOPE) (Georgia Student Finance Commission 2004). There are also programs for students wishing to attend Georgia public technical colleges and other non-traditional students choosing to return to school.

Once in college, the students are encouraged to maintain strong academic performance. HOPE scholars lose their benefits if they do not maintain a 3.0 GPA in college and complete the required number of credits per academic year. Students maintaining a B average during their college careers will pay nothing in tuition costs. At first, HOPE was only available for two years, but in 1994 the program was broadened to permit students to receive aid for four years.

Henry and Rubenstein capture the nature of the incentives by asserting that HOPE is another way of “paying for grades” (2002, 1). HOPE not only encourages students to perform in high school and college but also helps Georgia retain its most talented students by rewarding their choice to remain in the state for their higher education. If the top state colleges can attract better students, these schools will become stronger academic institutions. Presumably, these multiple benefits will justify the program.

HOW IS HOPE SUPPOSED TO WORK?

The effects of HOPE become clearer when viewed through the lens of consumer choice modeling. For most students, college is a family decision. Hence,

the family is the unit of analysis. The primary choice these families face is whether to send a child to college or not. Intuitively, this choice revolves around the price of schooling and how much a student/family wants a college degree. For the purposes of analysis, it is helpful to imagine three main types of families:

- (A) the family that not only wants to send a child to college but also can afford to do so;
- (B) the family that prefers not to send a child to college under current circumstances even though it is financially able to do so; and
- (C) the family that would like to send a child to college but is financially unable to do so.³

This model predicts that under current conditions family A will send its child to college while families B and C will not. While family B chooses not to participate in higher education, family C would do so if it had the resources. A reasonable conclusion is that if society wants to raise student achievement and increase college attendance, incentives must be offered to the latter two family types.

Essentially, HOPE is an incentive. Tuition payments act like a restricted grant that rewards student achievement. Under HOPE, family A (wealthy enough to send a child to college and the child wants to go to college) that already has the money to pay for tuition and books could purchase a more expensive education, use its wealth to purchase more consumer goods, or enjoy a combination of both. Family B (wealthy enough to send a child to college but the family chooses not to do so) now has greater incentives to send a child to college because it costs less with the scholarship. This family may reconsider the importance of higher education when offered HOPE money. Family C (not wealthy enough to send a child to college but the family would like to do so) would get a new educational opportunity. HOPE lowers the price of college for these lower-income families, making higher education more accessible.

DOES HOPE INCREASE COLLEGE ATTENDANCE?

Given this theoretical picture, the question is whether the HOPE scholarship delivers on its promises. As admission to and completion of college

requires some demonstrated academic ability, college attendance directly reflects a degree of student achievement at the secondary and college levels. Does HOPE raise the level of college attendance? The answer to this question revolves around the true distribution of college-bound students/families in Georgia. If a large number of families share characteristics with family B or C, then HOPE should increase college attendance across the state.

In fact, research indicates that the number of students attending Georgia colleges increased after the inception of HOPE by 6.0 to 7.9 percentage points (Cornwell, Mustard, and Sridhar 2003b; Dynarski 2000). This finding is tempered by the fact that approximately 75 percent of HOPE recipients lose the scholarship over four years of college and 40 percent of those students dropped out of college entirely (Bugler, Henry, and Rubenstein 1999). Critics point to these figures as an indication that HOPE has not radically improved Georgia higher education. Nevertheless, it is important to note that while many HOPE scholars do not finish college, a cohort of 1994 HOPE recipients experienced a 3 percent greater persistence rate for staying in school than non-HOPE students (Henry and Bugler 1997).

Additionally, Dynarski posits that “for some reason, an upward trend in relative attendance rates in Georgia began in 1992 and simply persisted when HOPE was put in place” (2000, 648). She cites a significant drop in overall attendance in the state in 1996 and suggests that attendance in Georgia is following a cycle that is independent of HOPE. This cycle may simply reflect the population explosion in Georgia in the 1990’s. Georgia’s population boomed from 6.5 million residents in 1990 to 8.4 million in 2001 and the unique characteristics of these new residents of Georgia could explain changes in college attendance rates (U.S. Census Bureau 2003). Moreover, Cornwell, Mustard, and Sridhar assert that two-thirds of Georgia’s increases in college attendance is attributable to students who would have gone to out-of-state schools without HOPE (2003). Essentially, they claim that much of this increase in college attendance represents a redistribution of the Georgia college-going population from out-of-state schools back to Georgia schools.

Proponents of the program answer these criticisms by claiming that HOPE encourages students to attend college in the first place and many students do not drop out even if they lose their funding. In other words, HOPE successfully gets students to consider and attend college and even if these students lose their scholarships, they will find alternative methods of financing their studies. Additionally, the incentives generated by the possibility of regaining the scholarship in future college years might prove enough to keep students from dropping out entirely (Henry and Rubenstein 2002). Evidence of this is clear in that around 40 percent of total HOPE scholars from 1993 to 1995 were still in college by the fourth year, regardless of whether they continued to receive the scholarship, while only around 33 percent of non-HOPE scholars were still in college after four years over the same period (Bugler, Henry, and Rubenstein 1999). Moreover, a smaller proportion of students appear to be losing the scholarship. By 1996, the percentage of students losing the scholarship after their first year of college dropped by over 6 percent (Bugler, Henry, and Rubenstein 1999).

Implicitly, HOPE is designed to increase educational opportunities for low-income students. These include African-Americans, who are disproportionately represented in lower-income groups. Critics assert that HOPE will crowd out these students as more middle-class students attend college (Dee and Jackson 1999, 2). However, there is evidence that HOPE has succeeded in getting more low-income students to matriculate. Presumably, prospective low-income students will seek the maximum financial aid available. Most of these students will apply for need-based, federal Pell grants. In the first four years of HOPE, the number of Georgia Pell grant recipients increased by 16.8 percent, while other states in the Southeast United States have shown decreases in the number of such recipients over the same period (Bugler and Henry 1998).

Perhaps more importantly, the number of Pell applications for Georgians soared between 1993 and 1996. In 1993, the number of Pell applications from Georgia was 182,000 (slightly higher than nearby states). By 1996, the number of Georgia Pell applications had reached 250,000, while the nearby states’ applications leveled off at or below 200,000

(Bugler and Henry 1998). While this could be due to the previously discussed demographic changes, these figures hint that HOPE may be increasing the volume of low-income students going to college in Georgia.

Likewise, according to a study by Bugler, Henry, and Rubenstein, the number of African-American enrollees in Georgia colleges increased by 32.8 percent since HOPE (1999). Unfortunately, African-American students are less likely to retain HOPE than other students. From 1993 to 1996, almost 60 percent of African-American HOPE recipients lost their scholarships in the first two years of college, compared to 47.3 percent for all groups. However, African-American students also are less likely to drop out of college after losing HOPE than all groups except Asians and Hispanics. While the results of these studies are mixed, the program seems to have had a positive effect on the total number of poor and African-American Georgians going to college.

DOES HOPE INCREASE STUDENT ACHIEVEMENT?

A second relevant issue is whether HOPE raises academic achievement. As more students are encouraged to perform well in high school and college, it is logical to expect student achievement in high school to increase. Data on Georgia's graduating high school seniors show increases in GPAs since the implementation of HOPE. In the first five years of the program, the number of eligible high school students increased from 46.8 percent to 59.5 percent (Bugler, Henry, and Rubenstein 1999). Obviously, student high school grades are improving, with over half of Georgia's graduating seniors holding at least a cumulative B average. However, some assert that a program based on grades creates pressures on secondary school teachers to give higher grades. The resulting grade inflation exaggerates gains in student achievement and Georgia's gains in student achievement could prove illusory.

Although a great deal of research does not exist on the subject, at least one study rejects this claim. Standardized measures of achievement, such as the Scholastic Aptitude Test (SAT), should reflect achievement regardless of the presence of grade inflation. Indeed, the Georgia Council for School Performance reports that, since 1993, not only are

more Georgians taking the SAT but scores are also increasing significantly (Bugler, Henry, and Rubenstein 1999). From 1992 (the inception of HOPE) to 1998, the average SAT score for Georgia freshmen increased over fifty points, raising the average Georgia college freshman's score up to the national average (Cornwell and Mustard 2002b). Also, Cornwell and Mustard report that by the end of the 1990's, total Georgia high school SAT scores were steadily increasing (albeit still below national averages) while the national average remained stable (2002b). Whether these increases are due to HOPE requires further study but they do suggest that the scholarships had some positive effect on high school achievement.

For college, signs of student achievement are harder to ascertain. The number of students losing their scholarships within the first year is discouraging, leading some critics to claim that the B average requirement for maintaining eligibility is too difficult to achieve. Also, differences in grading schemes across various fields of study may result in grades that are not always equivalent across disciplines. For example, a study of HOPE scholars at the Georgia Institute of Technology finds students in natural science, engineering and computer science programs have lower GPAs than students of similar ability in other programs (Dee and Jackson 1999).

Nonetheless, the general success of HOPE scholars relative to other students may underscore the effectiveness of the HOPE program. Using a sample of recipients of the HOPE scholarship on the lower end of the achievement spectrum, the borderline HOPE scholars, and a sample of non-HOPE scholars, researchers concluded that the program is improving college-level student achievement. The borderline HOPE scholars tended to have higher GPAs, more credit hours completed, and higher rates of college persistence than the matched sample of non-HOPE scholars. Borderline HOPE scholars' GPAs are approximately .17 points higher than non-HOPE scholars. Also, borderline HOPE scholars are almost twice as likely to graduate than non-HOPE scholars. Finally, borderline HOPE scholars accumulate about twelve more credit hours over two years than do non-HOPE scholars (Bugler and Henry 1998). This suggests that HOPE had some positive effect on student achievement at the college level.

Interestingly, Cornwell, Lee, and Mustard concluded that HOPE scholars (especially those whose GPAs put them on the cusp of losing HOPE) are liable to “game” the system by taking easier courses, taking fewer courses, withdrawing from courses, and spreading more courses to summer terms (2003, 14). Using a sample from the University of Georgia, the study utilized non-resident students as a control group. While the strategic behavior is not unexpected, the contradictory results between this study and the Bugler and Henry study are puzzling. The differences may result from the different samples used in the two studies and the fact that non-resident students may not accurately represent non-HOPE scholars. Regardless, it is clear that there is no definitive answer to this question at this time.

Another achievement indicator cited by HOPE supporters is the boon to Georgia’s colleges and universities since the program began. Arguably, the retention of high-caliber students within Georgia should improve in-state achievement and increase the overall quality of students in Georgia colleges. Using data from neighboring states, the number of Georgians attending out-of-state schools has dropped dramatically. The ten most common out-of-state destinations for Georgia students report that the number of Georgia enrollees has dropped from 17 percent in 1992 to 9 percent in 1998 (Dynarski 2000). The data also reveal that since HOPE began, many top students remain in Georgia to take advantage of the scholarship. According to the Georgia Council for School Performance, “colleges from Georgia’s border states report fewer top-flight Georgia students” (Henry and Bugler 1997, 5). The timing of this diminished migration implies that many Georgians are staying in state to take advantage of HOPE.

Moreover, high achievers are opting for prestigious in-state institutions such as the University of Georgia, the Georgia Institute of Technology, Emory University, and Georgia State University. Because these universities are now more attractive to some of Georgia’s top academic talent, their institutional reputations are improving. In referring to the University of Georgia, *The Chronicle of Higher Education* asserts, “few universities have become so much more competitive so quickly” (Healy 2003, A32). The *Chronicle* uses empirical evidence to

support this claim. First, the number of students in the freshman class at the University of Georgia with a GPA of at least a 3.9 increased from 331 in 1992 to 853 in 1997. Second, the average GPA of all incoming freshman at the University of Georgia increased from 3.33 in 1992 to 3.52 in 1997. Third, the average freshman SAT scores at the University of Georgia, Georgia Institute of Technology, and Georgia State University rose from 1039 to 1073 between 1992 and 1996 (Henry and Bugler 1997).

Additionally, there are signs that these students are performing well when they arrive at college. Data indicate that the average undergraduate GPA at the University of Georgia has increased since HOPE began. In 1996, the average GPA for all classes of undergraduates boasted at least a .05 increase when compared to the pre-HOPE classes (Healy 2003). Critics claim that the increases in college academic performance are due to grade inflation, with pressure on teachers to help students retain their scholarships. There is little empirical data to support this claim but many cite anecdotal evidence from faculty members who felt pressured to give good grades or they would “lose students” to other programs and courses (Healy 2003, A34). While such claims may hold some truth, current research indicates that HOPE has positively affected educational quality at Georgia’s top institutions.

WHAT ARE THE DISTRIBUTIONAL CONSEQUENCES OF HOPE?

Perhaps the greatest potential shortcoming of HOPE relates to the distributional consequences. All high school students in the state could conceivably benefit from merit-based scholarships. However, the key question is who ultimately pays for the program. First, the HOPE program is funded entirely through the Georgia lottery, requiring no additional direct taxation. However, according to Rubenstein and Scafidi, many studies “find lotteries to be highly regressive revenue generators” (2002). They assert that “while lower-income households may bear a disproportionately large share of the tax burden from implicit lottery taxation, they may also receive a disproportionately small share of the benefits from lottery-funded programs” (2002, 226-27).⁴

The costs of this implicit tax are significant. By March 2003, the HOPE program paid out \$2 billion in total benefits to nearly 700,000 students (Georgia Student Finance Commission 2004). This figure excludes the pre-kindergarten program, the construction projects, and the technology funding promised by the Georgia Lottery for Education Act (Brackett, Henry, and Weathersby 1999). HOPE benefits between 1993 and 2003 comprised approximately 29 percent of the total spent on education from lottery revenues. Hence, the total amount spent on lottery-funded educational projects from 1993 to 2003 was approximately \$6.5 billion. Given the Georgia Lottery Corporation formula, total revenue generated by the lottery over the years is about \$18.57 billion.⁵ This approximates the amount that individuals spent on lottery games over the past decade to fund the Georgia Lottery for Education Act. If the studies are correct about the regressive nature of the lotteries, the bulk of this cost was borne by the lower income groups.

Another noteworthy issue is that there are concerns about the stability of using lottery funds over time. Georgia is fortunate in that it is an exception to the rule, as its lottery is just one of two lotteries in the United States that showed increasing sales over the first six years of operation (Brackett, Henry, and Weathersby 1999). Moreover, the Georgia Lottery Corporation reports increased revenues through 2002 (Georgia Lottery Corporation 2003).

Ultimately, the true distribution of benefits is difficult to determine. In examining lottery-based merit scholarships, a Florida study found a "positive net benefit (direct benefits minus household lottery expenditures) for all groups except those in the lowest income category and that net benefits generally rise with income" (Rubenstein and Scafidi 2002, 227). Furthermore, Dynarski asserts that her estimate of the income effect of HOPE on middle and high-income family college choice is "surprisingly" high (2000, 653). Consequently, many middle and upper-class families are taking advantage of HOPE. Dynarski states,

there are two possible explanations. First,...a larger proportion of upper than lower-income students may be close to the

margin of college attendance. A given subsidy may therefore cause a relatively large share of high-income students to spill over the margin into college. Second, particular characteristics of Georgia and the HOPE Scholarship may intensify the program's effect. (2000, 653)

Given the conclusion that lower-income groups fund a large portion of HOPE, Dynarski claims that upper-income families are taking advantage of the regressively funded program and are receiving a greater share of the benefits relative to their contributions. Research indicates that students with college-educated parents are more likely to attend college (Plug and Vijverberg 2003). College-educated parents also are more likely to be in the higher-income groups. Consequently, higher-income students are more likely to go to college even without aid (Brackett, Gordon, and Henry 1999). In the model presented in this article, these families are type A (wealthy enough to go to college, wants to go to college). Many contend that most of these students "would have attended college even in the absence of the program" (Bugler, Henry, and Rubenstein 1999, 3). If this is true, the entire HOPE initiative has resulted in a significant redistribution of resources from the poorer groups to the wealthier groups. The 1995 decision to remove the \$100,000 income cap on HOPE eligibility exacerbates this disparity by permitting upper-income groups to participate in the program (Georgia Student Finance Commission 2004).

From the advertising campaign to the simplicity of the one-page application, the entire HOPE program was designed to be accessible. In fact, the initial longitudinal studies indicate that general public awareness of the availability of HOPE funds is widespread (Brackett, Gordon, and Henry 1999; Henry et al. 1998). Thus, it is unlikely that lower-income groups are missing out due to lack of information. However, the transactions costs are greater for low-income families. Under HOPE, families with adjusted gross incomes lower than \$50,000 also must fill out the Free Application for Federal Student Aid (FAFSA). The FAFSA adds transactions costs in the form of four pages of requests for a variety of detailed financial information about

applicants and their families (Dynarski 2000). Many of these low-income families must fill out FAFSA anyway in order for their students to become eligible for the need-based federal Pell grants. However, when HOPE was enacted, students receiving Pell grants would lose an equivalent amount of HOPE money. Many of these students would only qualify for the HOPE book allowance, as their Pell aid would offset the tuition portion of their HOPE grant (Bugler and Henry 1998). Thus, the families with the greatest need in Georgia would receive few benefits from the HOPE program, instead receiving benefits doled out by federal funds. This effect is mitigated by the policy change in 2001, which permits these low-income families to take advantage of both HOPE and Pell funds.

Another potential problem with HOPE is the tendency of institutions of higher learning to raise tuition or curtail benefit packages to students receiving aid. In increasing tuition, colleges can attempt to capture the subsidy provided by the state of Georgia (Dynarski 2000). For public institutions, this effect is potentially offset because the state sets tuition rates. Nevertheless, between 1993 and 1998, the costs of higher education increased by 21 percent in Georgia as opposed to 8 percent for the rest of the United States (Dynarski 2000). On the other hand, the prediction that HOPE would create large increases in private school costs in Georgia has not materialized. However, when the tuition increases from the Georgia HOPE are coupled with the tuition increases from the HOPE federal tax credit, which provides tax credits for tuition expenses, enacted in 1997, the result is an above average increase in college costs in the state of Georgia (Burd 2003). Ultimately, these costs push college farther out of reach for lower-income students who do not qualify for HOPE scholarships but do not significantly limit access to upper-income students.

LESSONS OF GEORGIA'S HOPE EXPERIENCE

While generally considered beneficial to students and their families, state use of lottery-funded merit-based scholarships requires careful consideration. Many questions about the efficacy of the program are still unanswered. Preliminary research indicates that since HOPE's creation, more Georgia students are attending Georgia colleges. Also, overall student

achievement in high school and in college is increasing. There is still debate as to how much of these gains are attributable to HOPE but many agree that the program has had positive effects. However, if Dynarski is correct in concluding that a great portion of Georgia's gains are attributable to other demographic factors or Cornwell, Mustard, and Sridhar are correct in concluding that the total number of Georgians attending any college anywhere are largely unchanged, HOPE may not be the solution to state educational goals. Nevertheless, lottery-funded scholarships are popular and the potential political windfall generated by these programs has encouraged other states to follow.

An interesting phenomenon, not fully elaborated in this article, is that some proponents assert that providing HOPE recipients with greater financial resources will give these families greater spending power which could in turn stimulate the overall economy. Cornwell and Mustard's study concludes that the increased buying power of Georgia college-going families has increased the number of cars purchased since HOPE's creation (2002a). Their estimate suggests "a doubling of a county's HOPE recipients, on average, [will] lead to a 2 percent rise in the number of registered cars" (2002a, 16).

The major drawback of HOPE relates to its distributional consequences. The regressive funding source channels much of the benefit to wealthier families while charging the costs to poorer families. Furthermore, inflationary tuition costs, generated in part by the Georgia HOPE and exacerbated by the HOPE federal tax credit, may ultimately hurt many low-income students who are not eligible.

Given the political success of the program, it seems unlikely that elected officials would consider the outright elimination of HOPE. Nevertheless, minor changes, like the 2001 decision to permit lower-income families to benefit from both HOPE and Pell funding, helps rectify some of the equity problems. While many students unquestionably benefit from HOPE, the crucial question is whether the effect on low-income groups is worth the gains to the rest of Georgia.

Ironically, as *The Chronicle of Higher Education* suggests, the greatest threat to HOPE may be that it is a "victim of its own success" (Selingo 2003, A38). At the time of this writing, financial pressures threaten

to significantly alter the scholarship program. Faced with rising tuition costs and a steady supply of eligible high school graduates, projections indicate that HOPE will run a \$434 million deficit by 2008 (Selingo 2003). A state commission charged with weighing alternatives suggested eliminating payments for books and fees and “tightening the definition of a B average to include only students who earned at least a 3.0 [GPA]” (Jacobson 2003a, 26). This would exclude those students who hold a GPA from 2.5 to 2.99, which is nominally still a B average. Additionally, Georgia Governor Sonny Perdue advocates setting a minimum SAT score for HOPE recipients. Yet another proposal recommends standardizing grades across Georgia’s 159 county school systems to mitigate the effects of grade inflation (Selingo 2003).

Not surprisingly, all of these proposals bring consequences. For instance, eliminating payments for books and fees is politically controversial and may reduce college attendance by raising costs. According to the U.S. Department of Education, a minimum SAT requirement may hurt minority and low-income students (Selingo 2003). Furthermore, the task of standardizing grades across school systems is not a simple one. Interestingly, all of these proposals will probably reduce current college attendance, which is the opposite of what the HOPE program is designed to achieve.

Regardless of what alternative Georgia ultimately selects, it is clear that in its present form HOPE may not be sustainable. As many states attempt to emulate Georgia’s success by creating their own HOPE-type program, this article’s findings suggest that further investigation and improved measures of Georgia’s social gains from HOPE are necessary and can provide considerable help in determining whether lottery-funded education initiatives are worth their costs.

NOTES

¹ These include Florida’s Bright Futures Scholarships, Louisiana’s Tuition Opportunity Program for Students, Kentucky’s Educational Excellence Scholarships, Maryland’s Science and Technology Scholarship Program, South Carolina’s Palmetto Scholarships, and Tennessee’s HOPE Scholarships. At the time of this writing, Oklahoma was slated to

vote on its own lottery-funded scholarship program in November 2004 (Arnone 2003).

² The cumulative 3.0 GPA requirement for core academic course requirement was initiated with the graduating class of 2000. Prior to that point, minimum eligibility was set at a 3.0 GPA in all courses.

³ This can be modeled graphically with a consumer choosing between a “level of education” and “all other goods.” Differences in indifference curves and budget constraints can represent the three different situations. Family A and C differ in their budget constraints and Family A and B differ in their indifference curves. A family’s eligibility for a HOPE scholarship would simply shift the budget constraint (Cordes, Kirby, & Buddin 1995).

⁴ In addition to Rubenstein and Scafidi, a detailed literature review of the regressive nature of lottery funding is available from Cornwell and Mustard (2001).

⁵ This figure is a rough estimate based on the average of lottery revenue spending on the four designated areas: pre-kindergarten programs, educational construction projects, educational technology projects, and scholarships. The \$6.5 billion figure is based on scholarships accounting for 29% of total spending and the other three projects accounting for the remaining 71%. Given that the Georgia Lottery Corporation uses 65% of lottery revenues to cover the costs of operating the lottery, \$6.5 billion accounts for approximately 35% of lottery revenues generated from 1993 to 2003. Hence, \$18.57 billion is the corresponding estimate of total revenues generated by the Georgia lottery over the same period.

REFERENCES

Andrew Young School of Policy Studies. Study: HOPE Scholars Make Better Grades, Graduate Sooner Than Peers. http://www.gsu.edu/~wwwsps/news/release/hope_grades.htm (accessed March 15, 2003).

- Arnone, Michael. 2003. States Once Again Look to Lotteries for Scholarship Dollars. *The Chronicle of Higher Education*, May 23.
- Brackett, Margaret H.H., Gary T. Henry, and Jeanie Weathersby. 1999. Report on the Expenditure of Lottery Funds, Fiscal Year 1999. *Georgia Council for School Performance*. <http://www.arc.gsu.edu/csp/default.htm> (accessed March 20, 2004).
- Brackett, Margaret H.H., Craig S., Gordon, and Gary T. Henry. 1999. HOPE Longitudinal Study: Year 2 Results. *Georgia Council for School Performance*. <http://www.arc.gsu.edu/csp/default.htm> (accessed March 20, 2004).
- Bugler, Daniel T. and Gary T. Henry. 1998. An Evaluation of Georgia's HOPE Scholarship Program, Impact on College Attendance and Performance. *Georgia Council for School Performance*. <http://www.arc.gsu.edu/csp/default.htm> (accessed March 20, 2004).
- Bugler, Daniel T., Gary T. Henry, and Ross Rubenstein. 1999. An Evaluation of Georgia's HOPE Scholarship Program: Effects of HOPE on Grade Inflation, Academic Performance and College Enrollment. *Georgia Council for School Performance*. <http://www.arc.gsu.edu/csp/default.htm> (accessed March 20, 2004).
- Burd, Stephen. 2003. Some Private Colleges May Cut Awards to Students Receiving Hope Scholarships. *The Chronicle of Higher Education*, Jan. 9.
- Cordes, Joseph J., Sheila Kirby, and Richard Buddin. 1995. Thinking About School Vouchers: Theory, Evidence, and Rhetoric. In *Readings in Public Policy*, ed. J. M. Pogodzinski, 237–267. Boston: Blackwell Publishers.
- Cornwell, C., K. Lee, and D. Mustard. 2003. The Effects of Merit-Based Financial Aid on Course Enrollment Withdrawal and Completion in College. *Terry College of Business, University of Georgia*. <http://www.terry.uga.edu/hope/research.html> (accessed March 24, 2004).
- Cornwell, C., D. Mustard, and D. Sridhar. 2003. The Enrollment Effects of Merit-Based Financial Aid: Evidence from Georgia's HOPE Scholarship. *Terry College of Business, University of Georgia*. <http://www.terry.uga.edu/hope/research.html> (accessed March 24, 2004).
- Cornwell, C. and D. Mustard. 2001. The Distributional Impacts of Lottery-Funded, Merit-Based Scholarships: Evidence from Georgia. *Terry College of Business, University of Georgia*. <http://www.terry.uga.edu/hope/research.html> (accessed March 24, 2004).
- . 2002a. Merit-Based College Scholarships and Car Sales. *Terry College of Business, University of Georgia*. <http://www.terry.uga.edu/hope/research.html> (accessed March 24, 2004).
- . 2002b. Race and the Effects of Georgia's HOPE Scholarship. *Terry College of Business, University of Georgia*. <http://www.terry.uga.edu/hope/research.html> (accessed March 24, 2004).
- . 2002c. Who Should We Help? The Negative Social Consequences of Merit Scholarships. *Terry College of Business, University of Georgia*. <http://www.terry.uga.edu/hope/research.html> (accessed March 24, 2004).
- Creech, Joseph D. 1998. State-funded Merit Scholarship Programs: Why Are They Popular? Can They Increase Participation in Higher Education? 1998 Benchmarks Series. Atlanta: Southern Regional Education Board.
- Crosnoe, Robert, Rashmita S. Mistry, and Glen H. Elder, Jr. 2002. Economic Disadvantage, Family Dynamics, and Adolescent Enrollment in Higher Education. *Journal of Marriage and Family* 64(August):690-702.
- Davis, Marcia, Thad E. Hall, and Gary T. Henry. 1999. Evaluating the Georgia HOPE Scholarship Program. *Georgia Council for School Performance*. <http://www.arc.gsu.edu/csp/default.htm> (accessed March 20, 2004).

- Dee, Thomas, and Linda A. Jackson. 1999. Who Loses HOPE? Attrition from Georgia's College Scholarship Program. *Southern Economic Journal* 66(2).
- Dynarski, Susan. 2000. Hope for Whom? Financial Aid for the Middle Class and its Impact on College Attendance. *National Tax Journal* 53(3): 629-661.
- Gehring, John. 2001. Georgia Scholarship Keeps Students in States. *Education Week* 20(20): 8.
- Georgia College and State University. 2003. Financial Aid Cost of Attendance. http://www.gcsu.edu/acad_affairs/enrl_srvcs/fin_aid/Cost.html (accessed March 20, 2004).
- Georgia Council for School Performance. 1998. HOPE Statistical Report. http://www.gsfc.org/Hope/Hope_support/html_summary_grant_all_cov_H.htm. (accessed March 20, 2004).
- Georgia Department of Technical and Adult Education. 2003. HOPE, Helping Outstanding Pupils Educationally. <http://www.dtae.org/hope.html> (accessed March 24, 2004).
- Georgia's HOPE Scholarship. *Terry School of Business at the University of Georgia*. <http://www.terry.uga.edu/hope/gahope.html> (accessed March 20, 2004).
- The Georgia Lottery Corporation. 2001. Georgia Lottery, 2000 Annual Report. <http://www.galottery.com/gen/aboutUs/lotteryReports.jsp?focus=aboutus> (accessed March 20, 2004).
- . 2002. Georgia Lottery, 2001 Annual Report. <http://www.galottery.com/gen/aboutUs/lotteryReports.jsp?focus=aboutus> (accessed March 20, 2004).
- . 2003. Georgia Lottery, 2002 Annual Report. <http://www.galottery.com/gen/aboutUs/lotteryReports.jsp?focus=aboutus> (accessed March 20, 2004).
- Georgia Student Finance Commission. 2004. Georgia's HOPE Scholarship Program. <http://www.gsfc.org/HOPE/index.cfm> (accessed March 20, 2004).
- Healy, Patrick. 2003. HOPE Scholarships Transform the University of Georgia. *The Chronicle of Higher Education*, Nov. 7.
- Henry, Gary T. and Daniel T. Bugler. 1997. Evaluating the Georgia HOPE Scholarship Program, Impact on Students Attending Public Colleges and Universities. *Georgia Council for School Performance*. <http://www.arc.gsu.edu/csp/default.htm> (accessed March 20, 2004).
- . 2002. Is Hope Enough? Impacts of Receiving and Losing Merit-Based Financial Aid. *Annual Research Conference of the Association for Public Policy and Management*. Dallas. Nov.
- Henry, Gary T., Steve Harkreader, Philo A. Hutcheson, and Craig S. Gordon. 1998. HOPE Longitudinal Study, First Year - Results. *Georgia Council for School Performance*. <http://www.arc.gsu.edu/csp/default.htm> (accessed March 20, 2004).
- Henry, Gary T. and Ross Rubenstein. 2002. Paying for Grades: Impact of Merit-Based Financial Aid on Educational Quality. *Journal of Policy Analysis and Management* 21(1):93-109.
- Jacobson, Linda. 2003a. Georgia Panel Would Tighten HOPE Grade Requirements. *Education Week* 23(13):13.
- . 2003b. Georgia Panel Recommends Cuts for HOPE Program. *Education Week* 23(10):26.
- . 2003c. Georgia Eyes HOPE Scholarship Changes. *Education Week* 23(7):18.
- . 2003d. Georgia's Pre-K Program Feels Fiscal Strains. *Education Week*, 23(4): 22.
- Micceri, Theodore. 1999. A Florida Perspective on Enrollment Impacts That Will Result from Recent Financial Aid Trends. *Annual Meeting of the Association for Institutional Research (AIR)*. Seattle. May 30 – June 3.
- Nora, Amaury. 2001. How Minority Students Finance Their Higher Education. *ERIC Clearinghouse on Urban Education*. New York: Columbia University.

- Plug, Erik and Wim Vijverberg. 2003. Schooling, Family Background, and Adoption: Is it Nature or Nurture? *Journal of Political Economy* 111(3):611.
- Reid, Karla Scoon. 2001. Report: HOPE Offers Little Help to Poor Students. *Education Week* 20(37):37.
- Rubenstein, Ross. 2000. Provision of an Equitable Public School Finance Structure in Georgia. *Fiscal Research Program, Andrew Young School of Public Policy Studies, Report No. 43*. Atlanta: Georgia State University.
- Rubenstein, Ross, Dwight R. Doering, and Larry R. Gess. 1998. The Equity of Public Education Funding in Georgia, 1988-1996. *Fiscal Research Program, Andrew Young School of Public Policy Studies, Report No. 26*. Atlanta: Georgia State University.
- Rubenstein, Ross and Benjamin Scafidi. 2002. Who Pays and Who Benefits? Examining the Distributional Consequences of the Georgia Lottery for Education. *National Tax Journal* 45(2):223-238.
- Selingo, Jeffrey. 2003. HOPE Wanes for Georgia's Merit-Based Scholarships. *The Chronicle of Higher Education*, Nov. 21.
- . 1999a. Seeking Dollars to Further Their Dreams, Scholarship Supporters Push for Lotteries. *The Chronicle of Higher Education*, Apr. 16.
- . 1999b. Colleges Hope 1999 Legislatures Will Provide Financial Security. *The Chronicle of Higher Education*, Jan. 8.
- Online Athens, Athens Banner-Herald. Students Keep Grades Up and HOPE Alive. http://www.onlineathens.com/stories/111602/new_20021116046.shtml (accessed March 20, 2004).
- The University of Georgia. 2000. Terry College Economics Professors Receive NSF Grant to Take Closer Look at the Impact of Georgia's HOPE Scholarship. <http://www.uga.edu/news/newsbureau/releases/2000releases/hopestudy.html> (accessed April 2, 2003).
- . Tuition and Fees at the UGA. <http://www.uga.edu/isl/apply/apptuit.html> (accessed April 14, 2003).
- U.S. Bureau of the Census. 2003. State and County QuickFacts. <http://quickfacts.census.gov/qfd/states/13000.html> (accessed March 20, 2004).
- Wolanin, Thomas E. 2001. Rhetoric and Reality, Effects and Consequences of the HOPE Scholarship. Washington: The Institute for Higher Education Policy.
- Wright, Scott W. 2001. Study Questions Merit of Georgia's Popular Scholarship Program. *Black Issues in Higher Education* 13(3): 12.
- Zapler, Michael. 1994. Half the Recipients of Georgia's HOPE Scholarships Fail to Perform Well Enough to Retain Awards. *The Chronicle of Higher Education*, Sep. 28.

