

# An Evaluation of Georgia's HOPE Scholarship Program

## Impact on College Attendance and Performance



June 24, 1998

### ***Executive Summary***

More students are seeking HOPE and that is good news for Georgia. Each year HOPE scholars are better prepared for college than the previous year. Once in college they perform better than their non-HOPE counterparts. HOPE gives Georgia students more incentive to improve their academic performance, and more students are meeting the challenge. To read a copy of the full report, visit our web page at <http://arcweb.gsu.edu/csp/>.

#### ***Who receives HOPE? (page 4)***

- From 1994 to 1997, the number of HOPE scholars has grown from 13,473 students (26.9% of entering class) to 18,098 students (36.9% of entering class). About 58% of all HOPE recipients are female. Just over 19% of HOPE recipients are African American.
- From 1994 to 1997, the percent of HOPE scholars who require learning support has declined from 19.9% to 14.9%. The percent with a college prep diploma has gone up from 87% to 97%. SAT scores are 35 points higher. The percent of HOPE students with a 3.0 in core courses has increased from 37% to 54% (Core course GPA will determine HOPE eligibility beginning in 2000).

#### ***Has the HOPE scholarship caused grade inflation? (page 6)***

- Since 1994, the number of HOPE recipients has increased, **and** the average SAT score has increased. Statistical analysis shows that as high school GPAs rise, SAT scores increase. If students were receiving HOPE due to inflated grades, we would not expect to see rising SAT scores.
- The number of students receiving a B or better GPA was increasing prior to the introduction of HOPE. From 1987 to 1992, the percent of Georgia high school students with a B or better GPA on their SAT application increased from 76% to 81.8%. From 1993 to 1996, the percent with a B or better average increased from 82.1% to 84.8%.
- The overall upward trend shows that the percentage of students with a B or better average has not accelerated since HOPE's inception.

#### ***What effect has HOPE had on African-Americans' academic performance? (page 8)***

- From 1994 to 1997, the number of African-American HOPE scholars increased by 32%.
- From 1994 to 1997, the percent of African-American HOPE scholars who required learning support has declined from 41.7% to 30.6%. The percent receiving a college prep diploma has increased from 88.0% to 97.7%. SAT scores have increased from 862 to 901. The percent with core course GPAs greater than 3.0 has increased from 28.4% to 42.5%.
- After three years of college, African-Americans who qualified for HOPE in 1994 are more than twice as likely as those who did not qualify to stay in college. They have higher cumulative college GPAs and earn more college credits.

***Does HOPE affect college attendance among low-income students? (page 9)***

- Available data suggest that more low-income students are attempting to go to college in Georgia. When the total resources from federal PELL grants and HOPE scholarships are considered, college funding for low-income students has increased since HOPE began.
- From 1993 to 1996, Georgia's PELL applications soared, and the number of Pell recipients increased by 16.8%, despite the fact that the number of high school graduates in Georgia remains nearly the same. Other southern states have shown declines or minimal growth in the number of applicants and recipients.
- The number of students from low-income families who receive PELL grants for tuition and fees and a HOPE scholarship for books has also increased from 3,717 to 5,359 in the past four years (HOPE gives PELL recipients \$100 per quarter for books).

***What effect has HOPE had on student performance in college? (page 12)***

- After three years of college, 1994 borderline HOPE scholars had one-tenth of a point higher college GPAs, earned about 7 more credit hours, and are more likely to stay in college (by 5.8 percentage points) than a matched sample of non-HOPE recipients.
- After two years of college, the 1995 cohort of borderline HOPE scholars had about 7 more credit hours and are more likely to stay in college (by 11.1 percentage points) than a matched sample of non-HOPE students.

***Are HOPE recipients retaining their scholarships? (page 19)***

- 75% of HOPE students who are on track to graduate in four years (those having at least 135 credit hours in their first three years of college) have a GPA high enough to keep their scholarship.
- 27% of HOPE students with fewer than 135 credit hours in their first three years of college are maintaining the 3.0 or better cumulative GPA.
- Overall, 31% of 1994 HOPE scholars have kept their scholarships. Despite losing their scholarships, HOPE students are staying in college at higher than expected rates.

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## ***Introduction***

In the fall of 1994, 13,473 first year college students received a HOPE scholarship to attend a Georgia public college or university. By 1997, the number who received HOPE for the first year of college increased to 18,098. More students are seeking HOPE and that is good news for Georgia. Each year HOPE scholars are better prepared for college than the previous year. Once in college they perform better than their non-HOPE counterparts. HOPE gives Georgia students more incentive to improve their academic performance, and more students are meeting the challenge.

After tracking students who enrolled in public colleges in 1994, we found that recipients of Georgia's HOPE scholarship are more likely to remain enrolled in college, have higher college grade point averages (GPA), and have earned more credit hours than students without the scholarship. For students who enrolled in 1995 (after the income limits for HOPE were removed), HOPE and non-HOPE college GPAs are similar, but HOPE scholars are more likely to remain in college and earn more credit hours.

HOPE has several grant and scholarship programs for students in Georgia's public and private institutions (see Table 1). This study is limited to HOPE scholars who are seeking degrees at Georgia's public colleges and universities. The public college scholarship provides top Georgia high school graduates with free tuition, fees, and a book allowance at public colleges and universities. HOPE scholars must have at least a 3.0 GPA in high school and must maintain a 3.0 in college to keep it.

## ***Key Findings***

HOPE's public college scholarship program has seen rapid growth in the last four years. That growth can be explained by three factors. First, relaxed eligibility requirements no longer limit HOPE by family income. Second, HOPE scholars are keeping their scholarship for more than one year. Third, the number of Georgia high school students who qualify for HOPE increases each year.

Students who received HOPE in 1997 arrived at college with a better level of high school preparation than HOPE students had three years ago. The number in learning support has dropped, while test scores and high school GPAs have increased.

HOPE scholars have demonstrated increased levels of preparation by their higher test scores. Since 1994, there are more HOPE recipients, and the average SAT score has increased. If students were receiving HOPE due to inflated grades, we would not expect to see rising SAT scores.

The number of African American students who attend public colleges in Georgia has not increased, but the number receiving HOPE has grown rapidly in four years. African American students who receive HOPE are better prepared in high school. The percent receiving a college prep diploma is up. SAT scores have increased. And core course high school GPAs have risen a full grade point. Once in college, African Americans with HOPE performed at higher levels than did those without the scholarship. They have higher college GPAs, have earned more college credit hours, and are more likely to remain in college.

More Georgian students are applying for and receiving federal PELL grants for low-income students. The number of applicants from Georgia continued to grow relative to other southern states. While the number of PELL recipients is leveling off in Georgia, other states have shown declines. Since the number of high school graduates in Georgia has not grown, a likely explanation is that more low-income students are attempting to go to college. We cannot say conclusively that HOPE is increasing the number of low-income students who attend college, but the available data are consistent with that hypothesis.

A comparison of student performance for those who entered college in 1994 and 1995 shows that HOPE students are more likely than non-HOPE students with similar backgrounds to have a higher GPA, to earn more college credits, and to remain in college longer. Even when we account for other factors that affect performance, HOPE makes a difference in the level of performance achieved in college.

About three-fourths of HOPE students who stay on track to graduate in four years keep their scholarship. Just over one quarter of students who are not on track to graduate in four years have a GPA high enough to retain their scholarship. Despite losing their scholarships, HOPE students are staying in college at higher than expected rates.

Six questions are answered in this evaluation: (a) Who receives HOPE? (b) Has the HOPE scholarship caused grade inflation? (c) What effect has HOPE had on African-American students' high school and (public) college performance? (d) Does HOPE affect college attendance among low-income students? (e) What effect has HOPE had on student performance in college? and (f) Are HOPE scholars keeping their scholarships in college?

### ***Who Receives HOPE to Attend Public Colleges and Universities?***

HOPE issues a number of grants for students who are seeking a diploma or certificate at a public institution (often Department of Technical and Adult Education Institutions), as well as for students earning a GED, or attending private colleges (see Table 1). HOPE now has a scholarship that pays up to \$3000 in tuition at private colleges for students who maintain a B average in high school. For most people in Georgia the most familiar HOPE program is the public scholarship requiring a 3.0 GPA in high school.

**Table 1. Distribution of HOPE Grants and Scholarships from 1994 through 1997**

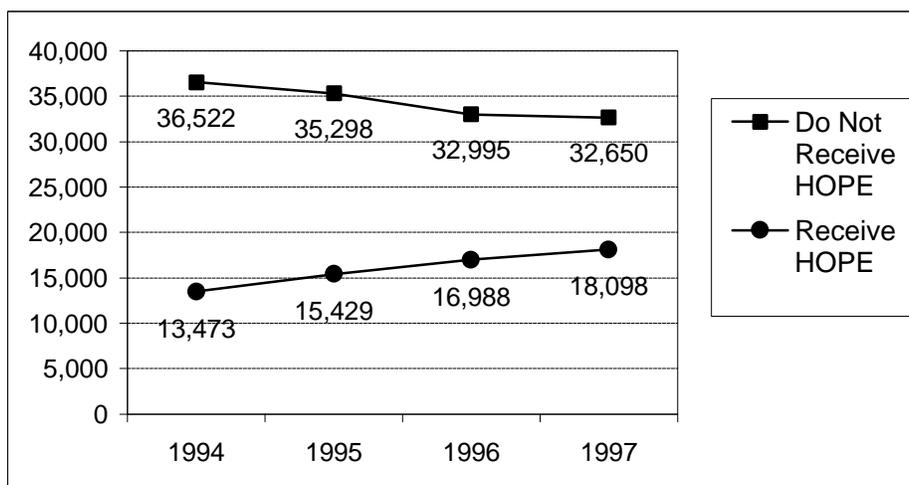
Year	Public College Scholarship (GPA>3.0)	Public Institution Grant	Grant for GED Students	Private College Grant	Private College Scholarship (GPA>3.0)
1994-95	31,880	NA	NA	NA	NA
1995-96	41,210	50,329	2,427	29,091	NA
1996-97	47,318	55,127	2,869	19,381	3,759
1997-98	54,160	55,686	2,686	10,196	17,410

The public college scholarship program has seen rapid growth, increasing over 58% in four years. In the fall of 1994, 26.9% of entering first year students at Georgia public colleges and universities were HOPE scholars. By the fall of 1997, 36.9% of entering students were HOPE scholars. Some of this growth can be attributed to changes in eligibility requirements. In 1994 HOPE was limited to students from families with incomes less than \$100,000, but income is no longer used to limit eligibility. Some of this growth can be attributed to students retaining their

scholarship for a second, third, or fourth year. Finally some of this growth stems from the increase in the number of Georgia high school students who qualify for HOPE (see Figure 1).

The number of Georgia high school graduates who attend Georgia public colleges and universities has remained steady over the past four years, but a growing percentage of students are receiving the HOPE scholarship. Overall, more women and African American students receive HOPE, but the proportion of HOPE recipients who are women or African American remains nearly constant. About 58% of all college students and of all HOPE recipients are female. While African American students comprise just over 22% of all public college students, only 19% of HOPE recipients are African American.

**Figure 1. Enrollments of 1<sup>st</sup> Year Students in Georgia Public Colleges 1994-1997**



Students who received HOPE in 1997 enrolled in college with better high school preparation than did HOPE students who enrolled three years prior (see Table 2). The percent who require learning support has declined from 19.9% to 14.9%. The percent of students with a college prep diploma has gone up from 87% to 97%. SAT scores are 35 points higher than they were just three years ago. Finally, the percent of students who would qualify for HOPE using the more rigorous eligibility standard of a 3.0 on their core courses has increased dramatically from 37% to 54% (this standard will be used for the entering class of 2000). Non-HOPE students also seem to be better prepared, but the three-year gains are not as clear. Fewer students require learning support, and their average SAT scores are higher, but fewer have a college prep diploma, and only 10.7% of the most recent first year students would qualify for HOPE based on core course GPAs.

**Table 2. Comparison of High School Preparation of Public College HOPE Recipients with Other Georgia Public College Students from 1994-1997**

Entered in :	Received HOPE				Did Not Receive HOPE			
	1994	1995	1996	1997	1994	1995	1996	1997
Require Learning Support	19.9%	18.0%	15.3%	14.9%	27.9%	24.6%	22.3%	18.0%
College Prep Diploma	87.4%	91.3%	93.0%	97.0%	38.1%	36.3%	36.3%	33.0%
Average SAT Score	976	987	1004	1011	750	754	755	909
Core Course HS GPA>3.0	37.1%	35.5%	46.0%	53.7%	12.3%	7.6%	8.0%	10.7%

Table 3 shows the comparison of college-level performance among HOPE and non-HOPE students over the last four fall enrollments. HOPE students are more likely to remain in college, and the difference between the two groups gets larger with each academic year. By staying in school, HOPE students earn more college credits per year than their non-HOPE counterparts. The average cumulative college GPA of HOPE recipients is higher than that of non-HOPE students. This is not surprising because the best students received HOPE, but GPAs for both groups remain steady over the four-year period. In summary, HOPE students seem to be more prepared for college, and HOPE appears to increase the likelihood that students will remain in and graduate from Georgia colleges.

**Table 3. Comparison of HOPE and Non-HOPE Students' College Performance 1994-1997**

Entered in:	Received HOPE				Did Not Receive HOPE			
	1994	1995	1996	1997	1994	1995	1996	1997
Still in College	70.7%	78.2%	92.3%	99.7%	37.4%	50.0%	68.3%	90.5%
College GPA	2.52	2.47	2.48	2.50	2.33	2.36	2.38	2.38
College Credits	81.1	59.6	32.8	11.4	48.1	37	21.9	8.3

### Has the HOPE Scholarship Caused Grade Inflation?

Along with the evaluation of potential positive impacts of the HOPE scholarship, potential side effects must also be monitored. One potential side effect is grade inflation. Because the HOPE scholarship has raised the importance of high-school grade point averages, many have speculated that grade point averages would rise, not due to higher performance but because of pressure on teachers to qualify borderline students for HOPE. Teachers may decide to raise a grade for a student to allow the student to receive the scholarship.

The number of public high school students who qualify for HOPE has increased each year. Since graduation rates have remained stable, the percentage of high school graduates who receive HOPE is also increasing as shown in Table 4. Are these increases the result of better performance in high school by students who want HOPE, or are they due to grade inflation? One way to answer this question is to examine the relationship between students' high school grades and their performance on SAT exams. If performance is rising, we should see increasing SAT scores.

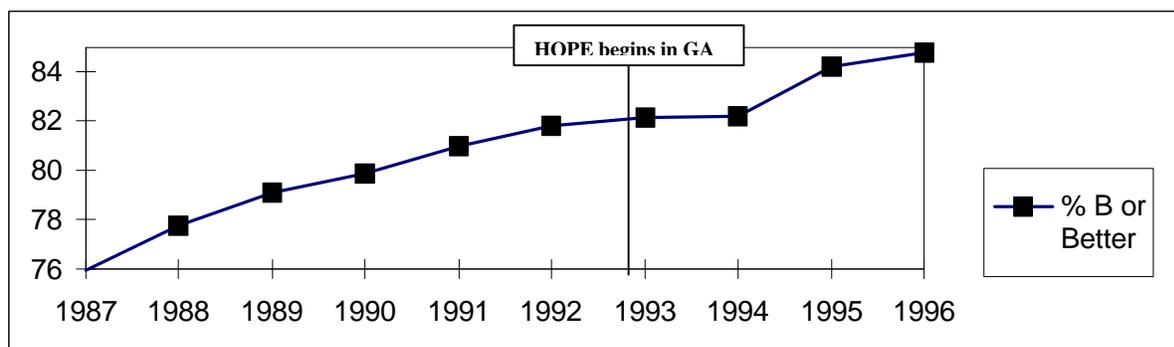
**Table 4. Number and Percent of Students Eligible for HOPE (Public High Schools Only)**

Academic Year	Number Eligible for HOPE	Georgia High School Graduates	Percent of Graduates Eligible for HOPE
1992-1993	27,863	59,520	46.8%
1993-1994	30,804	58,315	52.8%
1994-1995	32,713	59,736	54.8%
1995-1996	33,212	59,444	55.9%
1996-1997	35,347	61,004	57.9%

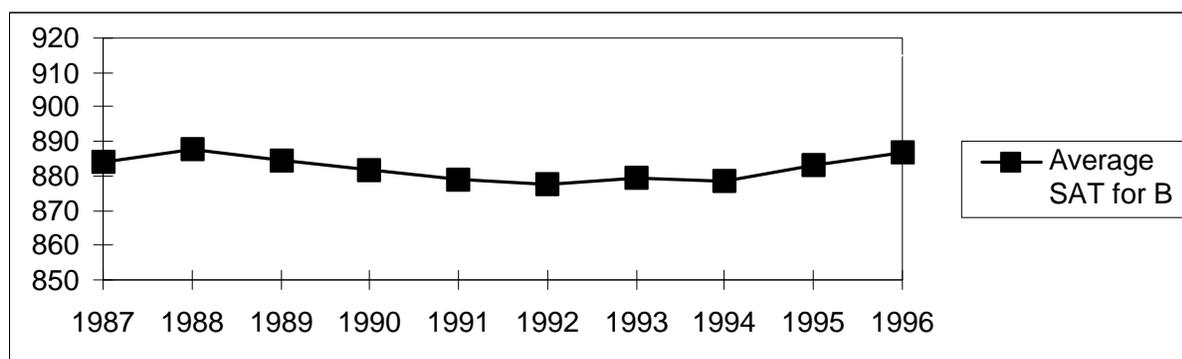
When students take the SAT, the College Board asks them to indicate their current high school GPA. From 1987 to 1992 the percent of Georgia students who indicated that they have a B or better average increased from 76% to 81.8%. From 1993 (the first graduating class eligible for HOPE) to 1996 the percent who indicated they had a B or better average increased from 82.1% to 84.8%. Figure 2a shows that the percent with a B or better average levels off the first year after HOPE was introduced in Georgia and rises the second year after HOPE. The overall

trend, however, shows that the percentage of students with a B or better average has not accelerated since HOPE's inception. There was a rising percentage of B or better students each year before HOPE, and HOPE did not change the trend. In addition, the SAT scores for the students with a B or better has slightly increased (see Figure 2b). If grade inflation caused the first trend, we would expect less qualified students to lower the SAT score averages.

**Figure 2a. Percent of Georgia Students Taking SAT Reporting a B or Better Average**



**Figure 2b. SAT Scores for Georgia Students Reporting B or Better Average**

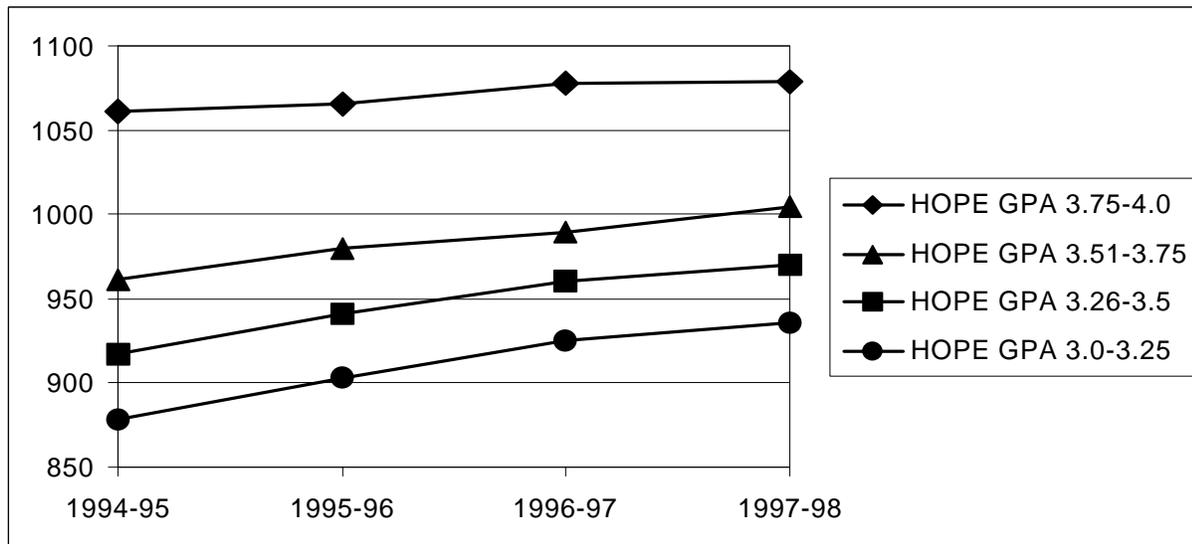


By combining data from the Board of Regents and the Student Finance Commission, it is possible to examine the relationship between overall high school GPA and SAT scores for HOPE students attending Regent institutions. We divided each year of HOPE students into four quartiles based on overall high school GPAs and examined their SAT scores (see figure 3). For each quartile of students, SAT scores have been rising. If grade inflation were occurring on a large scale in Georgia, we would expect SAT scores to decline. Students who received inflated grades should not do as well on the SATs when compared to students who had similar but less inflated GPAs.

Figure 3 shows that for every level of high school GPA, SAT scores have increased. Those in the lowest quartile have had the largest increase in SAT scores. Furthermore, higher GPAs are correlated with higher SATs, and the correlation has grown stronger with each year of HOPE. As GPAs rise, SAT scores increase. If students were receiving HOPE due to inflated grades, we would not expect to see rising SAT scores.

At Georgia's public colleges, this analysis suggests that at minimum HOPE has not increased grade inflation. Students who receive HOPE have demonstrated increased levels of preparation by their higher test scores. What this analysis cannot answer is what effect HOPE has had on GPAs among students at private colleges, DTAE institutions, or out-of-state schools that have seen decreases in Georgia students. The analysis shows that more students qualify for the HOPE scholarship and that the performance of those students, as measured by the SAT, has increased since HOPE began.

**Figure 3. SAT Scores of HOPE Scholars at Four Overall GPA Levels**



### ***What Effect Has HOPE Had on African Americans' Academic Performance?***

One of the intended consequences of HOPE is to increase the number of students from under-represented groups who attend and complete college. Some HOPE critics feared that students who were traditionally under-represented in college would not be helped by HOPE's performance requirements. While it is true that the number of African American students who attend public colleges in Georgia has not increased, the number of African Americans receiving HOPE has increased 32% from 1994 to 1997 (see Table 5).

**Table 5. Effect of HOPE on African American Students' High School Performance**

Entered in Fall of:	Received HOPE				Did Not Receive HOPE			
	1994	1995	1996	1997	1994	1995	1996	1997
Number	2,606	2,967	3,281	3,453	9,192	8,743	8,173	7,983
Require Learning Support	41.7%	37.1%	31.8%	30.6%	46.7%	40.8%	36.5%	31.8%
College Prep Diploma	88.0%	90.5%	88.8%	97.7%	39.5%	38.3%	38.5%	38.2%
Average SAT Score	862	868	886	901	626	646	628	782
Core Course HS GPA>3.0	28.4%	26.7%	35.3%	42.5%	7.7%	3.6%	3.9%	5.0%

Of the African Americans receiving HOPE, the percent requiring learning support has declined from 41.7% in 1994 to 30.6% in 1997, and the percent receiving a college prep diploma has increased from 88.0% in 1994 to 97.7% in 1997. SAT scores have increased 39 points from 862 to 901 in three years. There has been a fourteen percentage point increase in students who have core course GPAs greater than 3.0 from 1994 to 1997. These results suggest that African-American students who go to college and receive HOPE are better prepared for college. HOPE deserves some of the credit for this improvement.

The research results also show that African Americans with HOPE performed better than did those students without the scholarship. Table 6 shows the comparison of college-level performance among African American students with and without HOPE over the last four fall enrollments. African-American HOPE recipients who entered college in 1994 are more than twice as likely as those students without the scholarship to remain in school after three years of study. Cumulative college GPAs are higher among HOPE recipients. Those with HOPE earn more credit hours each school year. The differences between HOPE and non-HOPE students grow larger with each passing academic year. HOPE appears to motivate African Americans to higher levels of performance in high school and college. HOPE has increased college persistence levels among African Americans. With increased persistence, more African-Americans can be expected to finish college.

**Table 6. Effect of HOPE on African American Students' College Performance**

Entered in Fall of:	Received HOPE				Did Not Receive HOPE			
	1994	1995	1996	1997	1994	1995	1996	1997
Still in College	68.5%	78.3%	94.5%	99.8%	33.4%	46.0%	70.8%	89.4%
College GPA	2.19	2.20	2.20	2.23	1.84	1.89	1.95	1.93
College Credits	76.7	54.8	29.1	9.4	35.7	28.8	17.2	6.6

### ***Does HOPE Affect College Attendance Among Low-income Students?***

Some analysts feared that HOPE would only help middle class students while doing little for students from low-income families. These fears increased when the family income limits were removed. The intended outcome of HOPE is to provide all Georgia high school students with an added incentive to improve their performance regardless of family income. Any students achieving a B average will have their college tuition and fees covered at any Georgia public college or university.

A typical financial aid package for students from low-income families would include federally funded PELL grants based on financial need. If low income Georgia students earn a B average in high school **and** receive a PELL grant for tuition and fees, they will receive only \$100 from HOPE to buy books. Some highlight the smaller awards given to PELL grant recipients as proof that the program only benefits middle class students. If HOPE motivates students to improve high school performance and consider attending college, however, it should be considered a program that benefits all students of all income levels.

While PELL grants have been offered for many years, they are probably less well known than are HOPE scholarships among Georgia high school students and their parents. HOPE has been a widely publicized and popular program in Georgia. Students with college aspirations and B averages were likely to hear about HOPE from parents, teachers, and counselors, as

well as Georgia Student Finance Commission and Board of Regents information campaigns. Until they actually begin the college application process, most students do not understand college financial aid in enough detail to know that they may receive PELL grants and will not need HOPE scholarships to cover tuition and fees.

One can expect to see increases in the number of PELL applicants and recipients because more students are motivated to attend college by the HOPE scholarship, and to get HOPE most are required to fill out a PELL application. Receipt of a PELL grant instead a HOPE scholarship for tuition and fees does not diminish the incentive provided by HOPE. It does, however, make it difficult to measure HOPE's effect on college attendance by low-income students.

There are no direct measures of HOPE's effect on college attendance among low-income students. HOPE maintains income data for HOPE recipients only if they apply for PELL grants. Since students from families with incomes greater than \$50,000 need not apply for PELL, HOPE income data are not extensive enough to determine who is needy and who is not. Georgia Student Finance Commission data on HOPE recipients includes the students who receive only the \$100 book allowance, but maintains no other data that identifies who receives PELL funding. The Board of Regents Student Information System does not maintain income records for students. Despite these limitations, some analysis can be made using HOPE and PELL data.

If HOPE is causing more low-income students to apply for college, several results should emerge. More students should be applying for and receiving PELL grants. Since fully funded PELL students receive a \$100 HOPE book allowance, more students should be receiving the \$100 book allowance as their only HOPE funding. These results were revealed in the available data as shown below. While they are not conclusive, the available data are consistent with the hypothesis that HOPE is motivating more low-income students to attend college.

Table 7 shows that the number of students who receive only the book stipend (and are presumably PELL students) has increased from 3,717 to 5,359 in the past four years. This may show an increase in low-income students who qualify for HOPE, but do not receive tuition and fees from HOPE because they receive PELL funds. The majority of students receiving only the book allowance are enrolled in University System of Georgia (USG) institutions.

**Table 7. HOPE Recipients with Maximum Grant of \$100 Book Allowance per Quarter (PELL Grant Recipients) 1994 through 1997**

Year	Students w/ Book Allowance	% Female	% African American	% in USG Institution	% in DTAE
1994	3717	NA	NA	97.6%	2.4%
1995	3860	70.6%	18.1%	96.8%	3.2%
1996	4256	73.0%	22.8%	97.2%	2.8%
1997	5359	73.4%	21.3%	86.0%	13.7%

Table 8 shows that when compared to the nation as a whole, Georgia has seen large increases in the number of students applying for and receiving PELL grants. There appear to be more students applying for PELL funding, in part due to HOPE. In the years when HOPE required recipients to apply for PELL, 1992-1996, there was a marked increase in the number of applicants. During this same time period, the number of public high school graduates held

steady, and the number of PELL recipients rose slowly. Georgia did not have more students, but more students were applying for PELL grants. This may reflect the number of students who applied every year as part of their HOPE application, but the number receiving PELL also increased. This suggests that more low-income students were attempting to go to college.

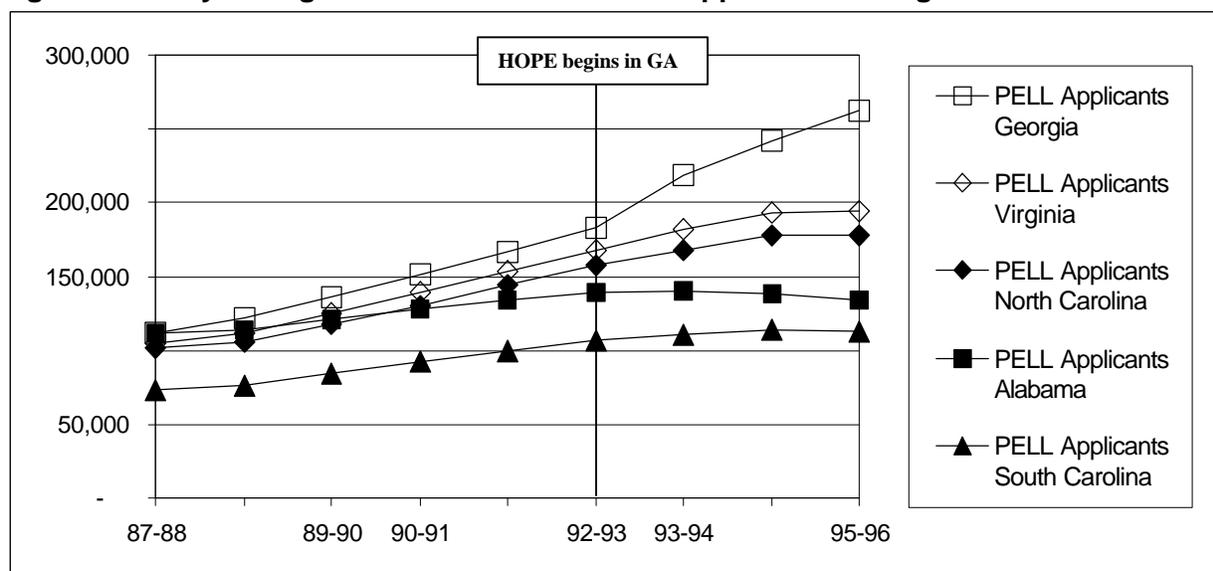
Figure 4 shows the annual change in the number of PELL applicants among five Southern states. In the 1987-88 school year, Georgia, Virginia, Alabama, and North Carolina all had about the same number of PELL applicants. In 1993-94, when the HOPE scholarship program was just beginning to fund a large number of students, Georgia's PELL applications soared

**Table 8. Comparing Georgia and U.S. PELL Applicants and Recipients**

1 <sup>st</sup> Year College	Georgia Public HS Graduates (previous spring)	Georgia PELL Applicants		U.S. PELL Applicants	
		Number of Applicants	% increase (decrease)	Number of Applicants	% increase (decrease)
	60,018	111,905		6,185,680	----
	61,765	121,996		6,288,288	1.7%
	56,605	151,022		7,467,001	18.7%
	59,723	182,748		8,248,141	10.5%
	59,520	218,871		8,770,409	6.3%
	58,315	241,886		8,493,456	-3.2%
	59,736	262,578		8,658,014	1.9%
		PELL Recipients		U.S.	
91-92	60,088			3,786,230	
92-93		87,386	12.9%		3.4%
93-94		87,043	-0.4%		-10.3%
94-95		88,217	1.3%		2.2%
95-96		90,456	2.5%		-1.8%

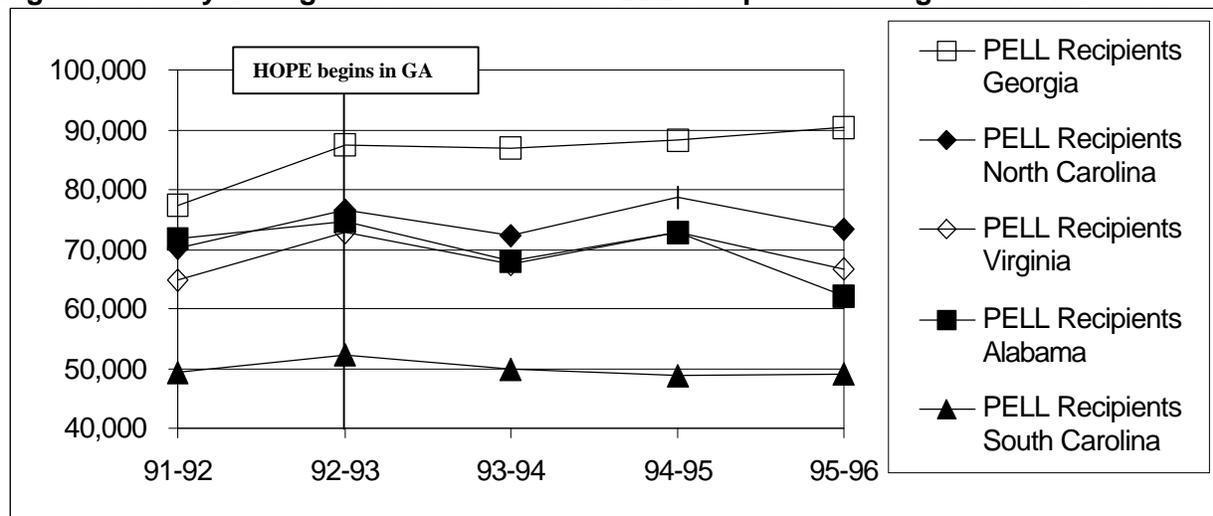
when compared to the other states. The number of applicants from Georgia continued to grow Georgia's continue to climb.

**Figure 4. Yearly Changes in the Number of PELL Applicants among Southern States**



As shown in Figure 5, Georgia has experienced slow growth in PELL recipients, but rapid growth in PELL applicants. The number of recipients in Georgia has increased by 16.8% from 1991-92 to 1995-96. Other states, however, have shown declines or minimal growth in the number of PELL recipients compared to Georgia's modest growth. More students have qualified for PELL in Georgia, despite the fact that the number of high school graduates remains steady.

**Figure 5. Yearly Changes in the Number of PELL Recipients among Southern States**



HOPE appears to be facilitating an increase in the number of students who apply for PELL. Many of the applicants do not qualify for an award from PELL, but an increasing number do. Since the number of high school graduates in Georgia has not grown, a likely explanation is that more low-income students are attempting to go to college. The result is that the number of PELL recipients has grown and the number of PELL students receiving HOPE book allowances has also increased. When the total resources from both sources are considered, funding for low-income students to attend college has increased since HOPE began. These results are consistent with the hypothesis that HOPE increases the number of low-income students attending college, but they do not conclusively prove this hypothesis.

### **Comparing HOPE and non-HOPE Students: What Effect Has HOPE Had on Student Performance in College**

If HOPE makes no difference in college, two students with similar high school preparation who attend similar institutions should earn about the same number of credits, have similar GPAs, and stay in school at equal rates. If HOPE does provide an incentive for students to perform better in college, differences should be evident when comparing matched samples of HOPE and non-HOPE students.

To assess the effect of HOPE on performance in college, we selected two cohorts of matched HOPE and non-HOPE students from Georgia public colleges and compared their college

college in 1994. For this cohort, we analyzed three years of data. The second cohort graduated from Georgia high schools in 1995 and enrolled in college in 1995 after the income

Several other factors also affect college performance, such as institution type, sex, race, and high school preparation, and are included in this analysis. We use regression estimates to

section at the end of this section). The following sections of this report detail findings from the matched sample regression estimates.

**(“borderline**

with a cohort of non-HOPE students who had similar characteristics. By matching HOPE and non-HOPE students on similar characteristics, we were able to isolate the effect of HOPE on

academic courses only) and the type of institution attended<sup>1</sup> group did not receive the HOPE scholarship because they did not apply or applied and did not meet the eligibility requirements.

years of study, number of college credits earned, and the cumulative college GPA. For both cohorts, persistence is defined as whether the student is enrolled in a USG institution in the fall

years for the 1995 cohort. College credits consist of cumulative or total quarter credit hours obtained through the summer quarter of 1997. Finally, college GPA is the cumulative grade

Our analysis techniques attempt to isolate the effects of each factor that is included in our regression model. Results of regression estimates using the matched sample cohorts show the

- more credit hours, and higher persistence rates than a matched sample of non-HOPE recipients.  
After two years of study, the 1995 cohort of borderline HOPE scholars had more credit
- earning higher college GPAs and more college credits. They are also less likely to drop out of college.  
For both cohorts, students who are required to take learning support courses have lower
- For both cohorts, students in Georgia’s national universities have higher college GPAs, are less likely to drop out, and earn more credit hours than their counterparts in Georgia’s regional and state institutions.

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universities, state universities, and two-year colleges. National universities are Georgia State University, Georgia Institute of Technology, and University of Georgia. Regional universities are Georgia Southern and Valdosta State. State universities include Albany State, Clayton State, and others.

- For the 1994 cohort, female students have higher college GPAs, more college credits, and are less likely to drop out than male students. For the 1995 cohort the only difference between the sexes is a higher GPA among females.
- In both cohorts, African American students earn more college credits than other races, have higher persistence rates, but have lower college GPAs.

***Comparing HOPE and non-HOPE Students: What Effect Has HOPE Had on College GPAs?***

For the 1994 cohort, borderline HOPE students have slightly higher college GPAs after three years of college after controlling for all other factors. The difference is less than one-tenth of a point on a 4-point scale. This difference is not found in the 1995 cohort. HOPE and non-HOPE students have no significant differences in GPA after controlling for other factors.

Other factors that affect college performance are included in the analysis. For both cohorts, high school preparation affects college GPAs. Students who have higher SAT scores tend to have higher college GPAs, while students who are required by Board of Regents policies to take learning support courses have lower GPAs. In this sample, students with college prep diplomas had lower GPAs (by nearly four-tenths of a point for both cohorts) than do those who did not acquire the college prep seal. This difference may be due to the type of courses taken in college. College prep may be more likely to qualify for and to take more difficult courses.

Female students have higher GPAs than males. In the 1994 cohort, African American students have lower GPAs than other students, but in the 1995 cohort there is no difference by race. In the 1994 cohort, those who transfer to other USG institutions have lower college GPAs, but there is no difference in the 1995 cohort. Finally, after controlling for these other factors, students who attend Georgia's national universities have higher GPAs than do students at other institutions. The differences are small, however, usually between one-tenth and two-tenths of a grade point.

***Comparing HOPE and non-HOPE Students: What Effect Has HOPE Had on college credits earned?***

After three years of college, the 1994 borderline HOPE students have earned about 58.6 credit hours compared with 45.7 for their matched non-HOPE students. After two years of college, the 1995 borderline HOPE students have earned about 12 more credit hours than the non-HOPE students. When controlling for all other factors, the difference that can be attributed to HOPE is slightly more than 7 credit hours.

Other factors also affect the number of credit hours earned. Those with higher SAT scores earn more credits in both cohorts. For the 1995 cohort those who had to take learning support courses earned 7 fewer credit hours than those who did not. After three years of college, the 1994 cohort did not show a significant difference in earned credit hours between learning support students and other students. The type of institution the student attends also affects the number of college credits earned. For both cohorts, students at state and regional universities and state two-year colleges earn fewer credit hours than students at national institutions. Those who transfer to other institutions earn about 6 fewer credit hours for both cohorts. In the 1995 cohort, African-American students earn 3.47 more credit hours than other students do; in the 1994 cohort, the difference increases to 8.3 more credit hours for African Americans. Female students earn 3.1 more credit hours than their male counterparts in the 1994 cohort. There is no difference between males and females in the 1995 cohort.

***Comparing HOPE and non-HOPE Students: What Effect Has HOPE Had on Persistence in College?***

Last year, 60.8% of the 1994 cohort of HOPE students were still in school after two years of study, compared to 51.1% of their comparison group. After a third year of study, 46.8% of the 1994 HOPE students are still in school versus 38.8% of their comparison group. The 1995 cohort has done even better. Of the borderline HOPE students, 65.7% are still in school after two years of study compared to 52.4% of their comparison group. Not only is HOPE helping students stay in school, the 1995 cohort is doing better than the 1994 cohort. When all other factors are controlled, the 1995 cohort of HOPE students is 11.1% more likely to remain in school when compared to their comparison group. For the 1994 cohort, borderline HOPE students are 5.8% more likely to be in school after three years of study.

For the 1994 cohort, after controlling for other factors, a one-point increase in college GPA (on a four-point scale) translates into a 15% increase in college persistence rates, and a 20.6% increase for the 1995 cohort. Students who are doing well stay in school. Students who transfer are also more likely to stay in school, which may offset their lower GPAs and fewer numbers of earned credits. It is likely that a number of these students have attended two-year institutions and are transferring at this point to continue their baccalaureate studies.

Students with higher SAT scores are more likely to remain in school. Developmental courses also seem to help students remain in school. Students who are required to take non-credit learning support courses are more likely to be in school after two and three years than those who do not. Students who take learning support courses appear to stay in school longer and by the third year have made up any deficits in the number of credits earned.

Finally, it is important to note that after controlling for receipt of HOPE, high school preparation and other influences on performance, African Americans are more likely to persist in college after two years. Persistence among African Americans is nearly 11 percentage points higher than other racial groups in both cohorts. While the 1994 cohort shows that females are seven percentage points more likely to stay in school than males, the 1995 cohort shows no difference between the sexes.

***Comparing HOPE and non-HOPE Students: Does HOPE Allow Students Greater Choice in Selecting a College or University?***

One of the most highly publicized impacts of HOPE is that it has increased the likelihood that Georgia residents will attend Georgia institutions. Colleges from Georgia's border states report enrolling fewer top flight Georgia students. Apparently, the most competitive high school graduates have chosen to remain in the state, thereby increasing first-year student enrollments at national universities in the state (University of Georgia, Georgia Institute of Technology, and Georgia State University) from about 6,200 in the 1991-92 school year to about 6,700 in the 1995-96, and increasing the average SAT test scores of enrolled students during the same time period from an average combined score of 1039 to an average combined score of 1073.

However, the main focus of this section is on the range of choice facilitated by HOPE for students who attend college within the state. There are two means by which HOPE could expand students' choice of institutions of higher education. The HOPE scholarship may increase access to higher education for those students who had previously been excluded due

to financial limitations. In addition, students who might have attended a nearby institution to defray room and board expenses may be able to afford an institution farther away, since these expenses can now be partially offset. It may be that some of these students will be able to choose a more competitive institution in Georgia and live on-campus rather than at home.

For the samples of students used in this study, HOPE students differ from non-HOPE students in significant ways (see Table 9). A comparison of HOPE and non-HOPE students revealed that the non-HOPE students are most likely to attend state two-year colleges (46.0% and 48.2% for 1994 and 1995 non-HOPE students respectively versus 24% and 20% for HOPE students) than HOPE students. HOPE students are most likely to attend state universities (42.8% and 48.4% for 1994 and 1995 HOPE versus 32.1% and 32.3% for 1994 and 1995 non-HOPE samples, respectively). HOPE students are more likely to attend one of Georgia's national universities than are non-HOPE students, and the differences are increasing. For the 1994 cohort, 17.6% of HOPE students went to national universities versus 15.5% of non-HOPE students. In the 1995 cohort, there is an eight percentage point difference in the rate of attendance at national universities between the two groups.

**Table 9. Effect of HOPE on Institutional Choice (Borderline HOPE and non-HOPE Samples Matched on Core High School GPA)**

	Percent Attending		SAT Scores		Learning Support	
	HOPE	w/o HOPE	HOPE	w/o HOPE	HOPE	w/o HOPE
<b>Institution Type (Enroll 1994)</b>						
National University	17.6%	15.5%	1018	1016	29.8%	22.6%
Regional University	15.6%	6.4%	852	827	34.2%	44.7%
State University	42.8%	32.1%	868	816	36.1%	44.4%
State Two-year	24.0%	46.0%	830	765	40.2%	49.0%
<b>Institution Type (Enroll 1995)</b>						
National University	20.1%	12.3%	1013	1022	33.4%	21.4%
Regional University	11.5%	7.2%	868	851	28.9%	38.6%
State University	48.4%	32.3%	884	819	29.0%	37.9%
State Two-year	20.0%	48.2%	845	790	33.0%	50.2%

Overall, when looking at the SAT averages, we see an increase from the least to most competitive institutions. HOPE students have higher SAT scores than do the non-HOPE sample in all types of institutions. Fewer HOPE students required learning support courses in all institutional types except the national universities.

This analysis suggests that more competitive students were able to attend more competitive state and regional universities. HOPE scholarship recipients seem to exercise greater choice in selecting their institution than other graduates with similar core course GPAs. This is especially true with respect to choosing two-year institutions, which tend to attract students who have a limited range of choice.

### ***How comparable are the groups of HOPE and non-HOPE students in this study?***

In both cohorts, HOPE students are more likely than the matched non-HOPE sample to have a college prep diploma, are less likely to need learning support, and are less likely to be female (see Table 10). HOPE students transfer between Georgia colleges at a slightly higher rate in 1994 and a slightly lower rate in 1995.

A major concern in this matched group design is that differences exist between the groups that are not related to the program. To reduce this possibility, the research design included other factors that may affect college level performance in the analysis presented above. Three types of variables were used in our final statistical models. The models controlled for the following effects: (a) the effects of institutional choice (variables for type of institution attended and whether or not the student transferred during the years covered in this study); (b) level of high school preparation (SAT scores, type of high school degree, college prep diploma, and required learning support courses); and (c) demographic variables that have been shown to relate to college performance (race and sex). After controlling for these factors, HOPE remained a significant impact on college GPA, credits earned, and persistence.

**Table 10. Comparisons of Borderline HOPE and Non-HOPE Samples Matched by Core High School GPA and Type of Institution Attended**

	<b>With HOPE Enrolled 1994</b>	<b>Without HOPE Enrolled 1994</b>	<b>With HOPE Enrolled 1995</b>	<b>Without HOPE Enrolled 1995</b>
<b>Demographics</b>	N=2058	N=2033	N=2014	N=2009
Female students	51.8%	57.0%	51.5%	55.5%
African-Americans	29.5%	30.5%	29.4%	33.8%
<b>High School Prep.</b>				
Learning support	35.7%	42.0%	30.7%	38.2%
College prep degree	93.2%	72.4%	94.9%	71.9%
<b>Choice of Institution</b>				
Transferred Colleges	13.6%	11.5%	10.0%	11.6%
<b>Performance in College</b>				
Still in school	48.6%	38.8%	65.7%	52.4%
Cumulative college GPA	1.86	1.85	1.96	1.92
Total college credits	58.6	45.7	46.7	34.8

### ***How do the borderline HOPE students compare to top HOPE students?***

The HOPE students used in this study were drawn from borderline recipients. These students have average performance levels that are lower than the average for top HOPE students, and they exhibit different rates of attendance at Georgia institutions. In all cases, the performance of the top HOPE scholars exceeds the performance of the borderline students. In addition to differences in enrollment patterns, we expect the borderline HOPE students to have lower achievement levels.

Table 11 shows the differences between the borderline HOPE students and top HOPE students for each of the two cohort groups. As a group, top HOPE students are more likely than the study group to be female, white, enrolled in national universities and not required to take learning support. Naturally, the achievement levels of the top HOPE students overall are much higher than the study sample. In high school, their SAT scores and GPAs were higher, and they are less likely to need learning support in college. These differences persist throughout college. The HOPE students who are excluded from this study have higher college GPAs, have earned more college credit hours, and are more likely to be in college after two and three years of study.

**Table 11. Comparison of Borderline HOPE students with top HOPE students**

	<b>HOPE HS GPA&gt;3.2 (Enroll Fall 94)</b>	<b>Borderline HOPE HS GPA 3.0-3.2 (Enroll Fall 94)</b>	<b>HOPE HS GPA&gt;3.18 (Enroll Fall 95)</b>	<b>Borderline HOPE HS GPA 3.0-3.18 (Enroll Fall 95)</b>
<b>Choice of Institution</b>				
Attend national	36.4%	17.6%	32.1%	20.1%
Attend regional	15.7%	15.6%	14.8%	11.5%
Attend state university	27.5%	42.8%	31.6%	48.4%
Attend state two year	20.4%	24.0%	21.5%	20.0%
<b>High School</b>				
Learning support	14.6%	35.7%	14.1%	30.7%
Combined SAT scores	1009	883	1013	901
Core Course HS GPA	2.53	1.86	2.49	1.96
<b>Demographics</b>				
Female students	62.5%	51.8%	61.0%	51.5%
African-American	16.1%	29.5%	16.6%	29.4%
<b>Performance in College</b>				
Cumulative college GPA	2.69	1.86	2.61	1.96
Total college credits	88.0	58.6	63.2	46.7
Still in college/university	74.9%	48.6%	80.8%	65.7%

### ***Selection of borderline HOPE recipients for the matched sample design***

Data used in this study were extracted from the Georgia Student Finance Commission's database and from the Board of Regents SIRS database. Study population for the 1994 cohort included 13,473 HOPE Scholars who first enrolled in a public college in 1994, and for the 1995 cohort 15,429 HOPE Scholars who first enrolled in a public college in 1995. After excluding those students listed as transfers or having incomplete data, and limiting the overall High School GPA to 3.0 to 3.2 for the 1994 cohort, and 3.0 to 3.18 for the 1995 cohort, there remained 2,058 borderline HOPE students for 1994 and 2,014 borderline HOPE students for 1995. On core courses these students had a GPA of 1.2 to 4.0 (for 1994) and 1.0 to 4.0 (for 1995). The HOPE recipients with lower GPAs were selected because these students are less likely perform sufficiently well to maintain their scholarship. In addition, with a program that is available to all of those who meet the eligibility requirements it is impossible to find a group that is similar in all respects to use for comparison. While it is nearly impossible to find good comparisons at the upper ranges of performance, it is possible to select a reasonably matched group at the lower levels of HOPE eligibility.

### ***Selection of matched comparison group for the matched sample design***

For the 1994 cohort, the study population consists of 39,597 non-HOPE students who enrolled in college in the summer and fall of 1994. When we eliminated transfer, graduate, and non-traditional students, 12,328 students remained. These students were matched with the 2,058 HOPE students by core course GPA and the type of institution attended, yielding 2,033 students (at state universities there were 25 fewer non-HOPE students with a core course GPA of 2.5 to 2.8, so our analysis used weighted averages to account for the difference in sample size). We included institution type attended as a matching criterion because of

different rates of institutional enrollments among borderline HOPE students and matched non-HOPE students.

In the 1995 cohort, the study population consists of 37,692 non-HOPE students who enrolled in the summer and fall of 1995. After eliminating transfer, graduate, and non-traditional students, 10,459 students remained. These students were matched with the 2,014 HOPE students by core course GPA and the type of institution attended, yielding 2,009 students (at state universities there were 5 fewer non-HOPE students with a core course GPA of 2.5 to 2.6, so our analysis used weighted averages to account for the difference in sample size).

### ***Analysis used in the matched sample design***

After matching the two groups in each cohort, simple percentages and averages are calculated to assess differences within cohorts between HOPE and non-HOPE students. Because the matching program does not control for all pre-existing differences, a number of variables were included in least squares regression equations to control for observable differences. Those results are presented in the narrative discussions on HOPE's impact on college GPAs, college credits, and persistence in college. The regression equations are also used to provide estimates of the impact of the other factors on each of the three outcomes that were analyzed. All regression analyses used weighted scores because of the differences in sample sizes between the HOPE and non-HOPE samples.

### ***Are HOPE Scholars Keeping Their Scholarships in College?***

HOPE students who began college in 1994 are on track to graduate in four years if they complete at least 135 credit hours in their first three years of college. Of those who are on track after three years, 75% have a GPA high enough to retain their scholarship. Of those who are behind, that is, those that have acquired fewer than 135 credit hours, 27% are maintaining the 3.0 or better cumulative GPA. Overall, only 31% of 1994 HOPE scholars have retained their scholarship after three years of study.

**Table 12. Comparing Borderline HOPE Students to HOPE Students Overall: Percent of Students Retaining HOPE (GPA>3.0)**

<b>Credit Hours Earned</b>	<b>Borderline HOPE HS GPA 3.0-3.2 (Enroll Fall 94)</b>	<b>HOPE students HS GPA&gt;3.2 (Enroll Fall 94)</b>	<b>Borderline HOPE HS GPA 3.0-3.18 (Enroll Fall 95)</b>	<b>HOPE students HS GPA&gt;3.18 (Enroll Fall 95)</b>
Less than 45 hrs	1.4% (n=1203)	10.6% (n=3429)	2.6% (n=1004)	10.9% (n=3708)
45-89 hrs	5.8% (n=414)	38.7% (n=1451)	12.2% (n=896)	35.0% (n=6082)
90-134 hrs	17.2% (n=348)	40.0% (n=3317)	33.3% (n=114)	74.3% (n=2150)
135-179 hrs	31.9% (n=91)	74.9% (n=1802)	--	100.0% (n=2)
179 or more hrs	0.0% (n=2)	90.5% (n=21)	--	--

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Total hrs	6.3% (n=2058)	36.1% (n=10020)	8.6% (n=2014)	34.6% (n=11942)
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As shown in Table 12, for the 1994 borderline HOPE scholars in this study, only 6.3% have the required average. For HOPE students from 1995, the percentage of students retaining HOPE after two years of study is almost identical to the 1994 HOPE scholars. Even though 70% of HOPE scholars lost their scholarship, they are staying in college at higher than expected rates.

**Council for School Performance**

The Council for School Performance is housed in the Applied Research Center in the School of Policy Studies at Georgia State University. Council studies include three assessments of the HOPE scholarship program and many other studies on lottery-funded programs and on educational performance in Georgia.

The mission of the Council for School Performance is to provide impartial and accurate information so that schools and the communities they serve will have appropriate benchmarks for performance and accountability. The Council will be a positive body to promote quality and progress in all schools, helping communities attain local, state and national education goals by sharing innovative educational practices and local successes.

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