



# *oppaga* Program Review

February 2003

Report No. 03-17

## Bright Futures Contributes to Improved College Preparation, Affordability, and Enrollment

### *at a glance*

Since the Bright Futures program was created in 1997, Florida's high school graduates have improved their academic preparation and more of them are going on to college in Florida. The largest gains have occurred among minority students. Bright Futures scholarships contribute to this improvement by offering students financial incentives for good academic performance and preparation. The Legislature has several options that could help control the growth of the program or encourage further improved preparation, including changing eligibility requirements, changing the award structure, and changing renewal requirements.

### Scope

This report summarizes the outcomes of the Bright Futures program, the state's largest financial aid program. Section 11.513, *Florida Statutes*, directs the Office of Program Policy Analysis and Government Accountability to complete a program evaluation and justification review for each state agency that is operating under a performance-based program budget.

This report is one of three that review Florida's Student Financial Assistance Program. The program is administered by the Office of Student Financial Assistance in the Department of Education and provides grants, scholarships, and

loans for students attending postsecondary educational institutions in Florida. Other reports in this series assess the performance of the Office of Student Financial Assistance and the extent to which the state's financial aid policies are meeting the financial needs of Florida's community college and university students.

### Background

Created in 1997, the Bright Futures program awards scholarships to Florida high school graduates who attain specified levels of academic achievement. Three types of awards are available to students, each paying a different percentage of tuition and fees based on academic performance (see Exhibit 1). To be eligible for the Florida Academic Scholars Award or the Florida Medallion Scholars Award, students must complete 15 credits of college preparatory courses. Four of these credits must be in English, three in math, three in the natural sciences, three in the social sciences, and two in a foreign language. The Florida Gold Seal Vocational Scholars Award has somewhat different course requirements. Each award has different high school grade point average and college entrance examination requirements.<sup>1</sup>

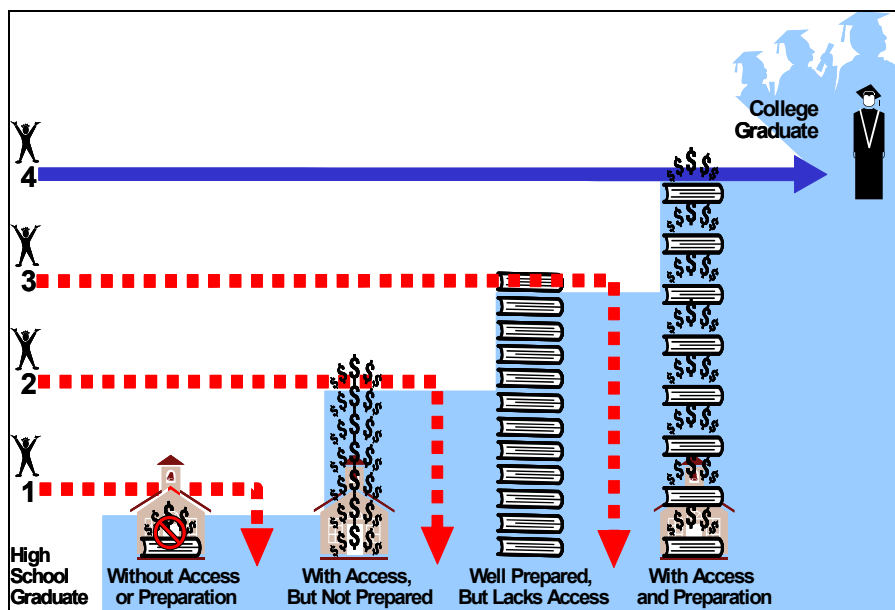
<sup>1</sup> The Office of Student Financial Assistance's Bright Futures website (<http://www.firn.edu/doe/brfutures/hsguid.htm>) has more detailed information on eligibility requirements and award levels.

**Exhibit 1**  
**The Three Bright Futures Scholarship Awards Have Different Award Levels and Eligibility Requirements**

Bright Futures Award	Minimum Weighted Grade Point Average	Minimum College Entrance Exam Scores	Award Level
Florida Academic Scholars Award	3.5	1270 – SAT 28 – ACT	100% of tuition and fees plus \$300
Florida Medallion Scholars Award	3.0	970 – SAT 20 – ACT	75% of tuition and fees
Florida Gold Seal Vocational Scholars Award	3.0	83 – Reading CPT 83 – Writing CPT 72 – Math CPT OR 440 – SAT Verbal 440 – SAT Math OR 17 – ACT English 18 – ACT Reading 19 – ACT Math	75% of tuition and fees

Notes: College Placement Tests (CPTs) are typically taken by community college students to determine whether they are ready for college.  
 Source: Office of Student Financial Assistance, Florida Department of Education.

**Exhibit 2**  
**Postsecondary Degree Production Is a Function of Both Preparation and Access**



Note: Sizes and shapes in graphic are for illustrative purposes only.  
 Source: OPPAGA.

**Program purpose**

The Bright Futures program was intended to encourage better student preparation and performance, help make college more affordable, and encourage more students to attend a Florida college.

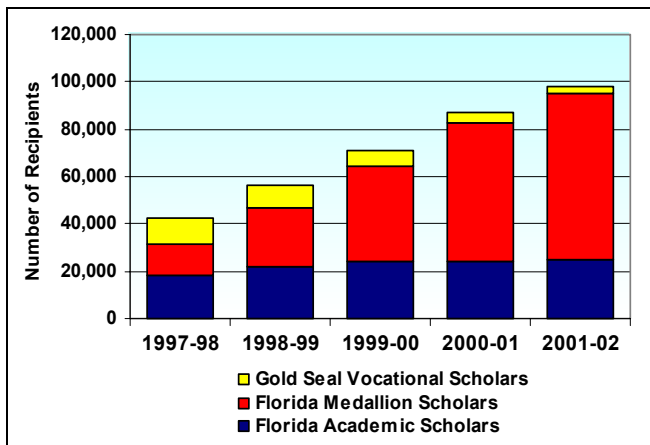
Historically, Florida has lagged behind the rest of the nation in the production of baccalaureate degrees. The number of high school graduates who go on to college and ultimately earn a baccalaureate degree is a function of three factors: physical access, financial access, and academic preparation. That is, there must be a college or university with enough openings to accommodate demand, students must be able to afford college, and students must be academically prepared for college work. Exhibit 2 shows the general relationship between these three factors. The Bright Futures program is intended to increase baccalaureate production by addressing two of these factors by making college more affordable and encouraging better academic performance.<sup>2</sup>

<sup>2</sup> One study (*Answers in the Tool Box: Academic Intensity, Attendance Patterns, and Bachelor's Degree Attainment*, U.S. Department of Education, Office of Educational Research and Improvement) has shown that increased academic preparation in high school has a significant effect on the likelihood of a student completing a bachelor's degree.

### Program recipients

As of Fiscal Year 2001-02, 98,294 students were receiving scholarships through the Bright Futures program. Over the last five years the number of recipients has more than doubled. Most of the growth has been within the Florida Medallion Scholars (FMS) program, while the number of Florida Academic Scholars (FAS) has remained stable. The number of Gold Seal Vocational awards has declined (see Exhibit 3). In all, 72% of recipients receive a FMS award, 25% a FAS award, and 3% the Gold Seal award (see Exhibit 3).

**Exhibit 3**  
The Number of Bright Futures Recipients Has Increased Over the Past Five Years, Mostly Among Florida Medallion Scholarships



Source: OPPAGA analysis of DOE data.

Exhibit 4 shows that the racial distribution of the Bright Futures recipients varies depending on the type of award.

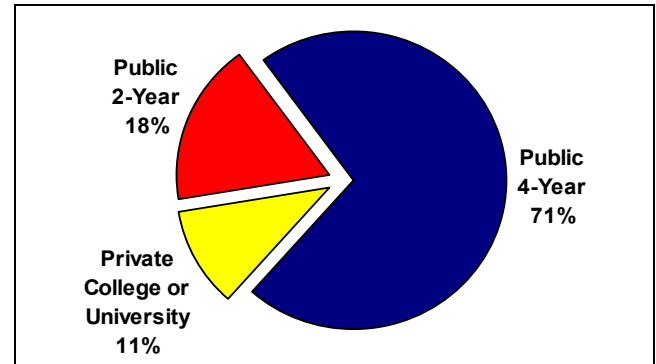
**Exhibit 4**  
Racial Distribution of Bright Futures Scholars

	Academic Scholars	Medallion Scholars	Gold Seal
African-Americans	3%	8%	14%
Hispanics	8%	13%	12%
Asians	6%	4%	3%
Whites	80%	72%	70%
Other	3%	3%	1%

Note: Data are based on the students in our graduation cohorts.  
Source: OPPAGA analysis of DOE data.

Exhibit 5 shows that 73% of recipients attend a public four-year institution, 18% attend a public two-year college or vocational center, and 11% attend a private college or university.

**Exhibit 5**  
Most Recipients Attend a Public Four-Year University

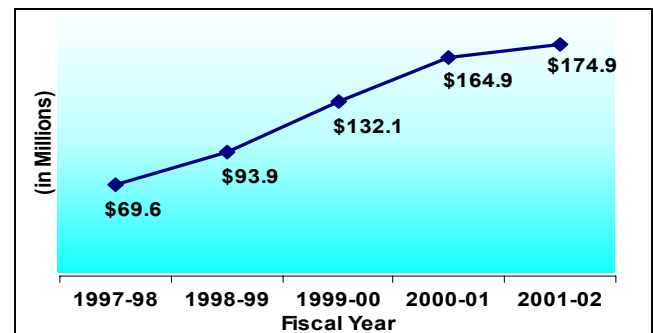


Source: OPPAGA analysis of DOE data.

### Program resources

The Bright Futures Scholarship Program is Florida's largest state-funded financial aid program. In Fiscal Year 2001-02, the program awarded \$174.9 million in scholarships, accounting for 52.4% of state financial aid administered by the Office of Student Financial Assistance.<sup>3</sup> Since its inception in 1997, program expenditures have increased 151% as more students have been awarded scholarships and have continued in college (see Exhibit 6).

**Exhibit 6**  
Bright Futures Scholarship Program Awarded \$174.9 Million in 2001-02



Source: Office of Student Financial Assistance, Florida Department of Education.

<sup>3</sup> This represents the amount awarded; the amount appropriated for the most recent fiscal year, 2002-03, is \$218,970,000.

## Findings

Our review of the Bright Futures program addressed four questions.

- How has Bright Futures affected college affordability?
- Have high school graduates increased their college preparation and grades, and are more students going on to college in Florida?
- How has the preparation and continuation of minority and at-risk students changed?
- What options exist for controlling the cost of the Bright Futures program?

To address these questions, we analyzed financial need information on all Bright Futures recipients enrolled in a state university or community college in the 2000-01 academic year. We also analyzed the academic performance of Florida high school graduates between 1996-97 and 2000-01. For each cohort we examined the types of high school courses taken, their grade point averages and standardized college entrance exam scores, and the rate of high school graduates continuing their education. We also solicited the opinions of high school guidance counselors through focus group interviews and a statewide random sample survey. See Appendix A for more information about our research methodology.

### How has Bright Futures affected college affordability?

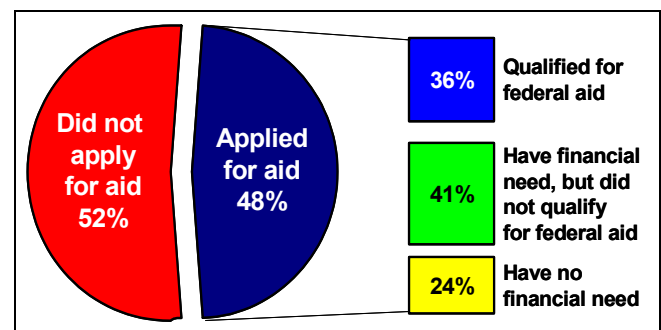
**Although Bright Futures scholarships are awarded on the basis of merit rather than financial need, these scholarships have made college more affordable for many families.**

Our analysis of the financial aid records of Bright Futures recipients enrolled in Fiscal Year 2000-01 showed that 76% of the students we could assess had financial need (the need remaining after including the student's expected family contribution and federal grants).<sup>4</sup> We could not

<sup>4</sup> The data on cost of attendance, expected family contribution and other federal grants are derived from the Free Application for Federal Student Aid (FAFSA).

assess the financial need for 52% of the 2000-01 Bright Futures recipients at public institutions because they did not apply for financial aid. However, of the students who did apply, about 36% qualified for some form of federal aid.<sup>5</sup> An additional 41% had some level of financial need before receiving Bright Futures but did not qualify for federal aid (see Exhibit 7). For these students, Bright Futures helped make college more affordable. The remaining 24% had no financial need.

**Exhibit 7**  
**Many Bright Futures Recipients Have Unmet Need**



Note: Financial need is determined by including expected family contribution and any federal grant aid. It does not include any aid provided by a state or local entity. Percentages do not add due to rounding.

Source: OPPAGA analysis of DOE data.

The Bright Futures scholarship recipients with financial need typically have family incomes of up to \$75,000 (see Exhibit 8).<sup>6</sup> Most of these students fall into the middle and lower income range and many do not qualify for need-based aid but still have some unmet need. Among community college students, for whom the cost of attendance is relatively low, those with family incomes under \$60,000 typically have some financial need. Since the cost of attendance is higher at a state university, recipients with family incomes of up to \$75,000 typically have some financial need.

<sup>5</sup> This equates to 17% of all Bright Futures recipients. A similar percentage (22%) of all non-Bright Futures recipients also qualified for need-based financial aid. This indicates that Bright Futures recipients are about as likely as other students to qualify for need-based aid.

<sup>6</sup> This analysis is based only on students completing a FAFSA.

**Exhibit 8  
Bright Futures Recipients With Family Incomes of up to \$75,000 Have Financial Need**

Income	Community Colleges		State Universities	
	Median Financial Need	Percentage of Students	Median Financial Need	Percentage of Students
\$0 - \$15,000	\$5,407	5%	\$8,890	5%
\$15,001 - \$30,000	4,435	8%	8,419	8%
\$30,001 - \$45,000	3,709	8%	8,362	9%
\$45,001 - \$60,000	1,769	5%	7,350	8%
\$60,001 - \$75,000	---	4%	4,022	7%
\$75,001 and up	---	4%	---	14%
Total – Applied for Aid		33%		51%
Did Not Apply for Aid		67%		49%

Note: Financial need is determined by including expected family income and any federal grant aid. It does not include any aid provided by a state or local entity.

Source: OPPAGA analysis of DOE data.

## Have high school students increased their college preparation and grades, and are more going on to college?

The Bright Futures program provides an incentive for high school students to take more college preparatory classes, earn good grades, and continue their education. Florida’s high school students have changed their course-taking patterns and are now taking more college preparatory courses. Their grades have slightly improved, although college entrance exam scores have not increased. More graduates are now attending college in Florida.

**Students have increased their college preparation.** As shown in Exhibit 9, high school students who graduated in the 2000-01 school year took more of the required Bright Futures courses and took more rigorous courses. As a consequence, more graduates met the program’s academic requirements than did students who graduated in 1996-97, before the program was enacted. To graduate from high school, all students must earn a minimum number of credits in English, math, science, and social science.

However, some of the courses that count toward high school graduation do not count toward college admission or Bright Futures.<sup>7</sup> In 1996-97, 54% of graduates took all of the required Bright Futures courses. However, by 2000-01 this percentage had risen to 65%, resulting in about 11,500 additional graduates who met the course requirements.<sup>8</sup>

A slightly higher percentage of students is also taking more rigorous courses. For any given subject, students can take a standard course or opt for a more difficult and challenging version, typically an Advanced Placement, International Baccalaureate, honors, or dual enrollment course. In 1996-97, 62% of high school graduates took at least one of these rigorous courses. In contrast, 64% of the 2000-01 graduates had taken one of these courses; this represented about 2,600 additional students. Students also have increased the number of advanced courses that they take. Among students who took at least one of these courses, the average number of such courses taken rose from 11.2 to 12.1. While this represents a small increase, there had been some concern that students would take easier courses to raise their grade point averages. Given the improvement seen here, this does not appear to be a significant concern.

The percentage of students who meet all Bright Futures requirements, including test score and grade point average criteria, has also risen over time. Exhibit 9 shows that 26% of high school graduates qualified for Bright Futures scholarships in 1996-97. This percentage rose to 30% of graduates in the high school class of 2000-01, representing a gain of about 4,000 students who met the program’s academic requirements.<sup>9</sup>

<sup>7</sup> Community colleges have open admission policies and therefore do not have a list of courses required for admission.

<sup>8</sup> The Florida Department of Education and the community colleges and universities maintain a list of courses appropriate for college-bound students who also qualify for the Bright Futures program. This list, the Comprehensive Course Table, can be found at <http://nwrdc.fsu.edu/fnbpcm02>.

<sup>9</sup> Some students completing all of the coursework requirements did not meet the other Bright Futures requirements. As a result, the increase in students meeting all of the requirements is less than the increase in students taking all of the coursework.

**Exhibit 9**  
**The Bright Futures Program Has Contributed to Improved Academic Preparation**

	1996-97	2000-01
Percentage of students taking all of the required Bright Futures coursework	54%	65%
Percentage of students taking at least one Advanced Placement, International Baccalaureate, honors, or dual enrollment course	62%	64%
Percentage of high school graduates meeting all of the requirements for a Bright Futures scholarship	26%	30%

Source: OPPAGA.

While these changes are not dramatic, it should be kept in mind that many top students will take challenging courses and make good grades regardless of the incentives provided by Bright Futures scholarships, and there is limited room for such students to improve their performance. The program is likely to have the greatest impact among students who otherwise may not have planned to attend college, for either academic or financial reasons. Most guidance counselors (89%) we contacted believed that more students are now preparing to go on to college, and 79% believed that students were taking more challenging courses (see Appendix A for details regarding the survey).

**Grades for high school graduates have improved, but test scores show little change.**

The grade point averages of high school graduates have increased somewhat, but their college entrance exam scores have decreased slightly. This divergence may be due to a combination of students working harder, grade inflation, and a greater percentage of average students taking the entrance exams.

The Bright Futures program encourages students to work harder and earn the grade point averages required to qualify for its scholarships. Exhibit 10 shows that the average GPA of the graduation cohorts we examined has risen 5.5% since the Bright Futures program was created. However, during the same period, the college entrance examination scores of these students declined slightly. This suggests that graduates are performing slightly better in their coursework but a little worse on college entrance examinations. The SAT scores of the students dropped 0.6%, ACT scores declined 1.6%, and College Placement Test scores declined between one-tenth of 1% and 2.4%, depending on the test.

However, this decline was largely due to the fact that more students took these exams. Expanding the number of students taking the college entrance and placement exams lowered the overall average by adding generally weaker students to the group of test-takers. When adjusted for the changing makeup of test-takers, the entrance exams scores were essentially flat (see Appendix A for details).

**Exhibit 10**  
**Average Grade Point Averages Have Risen While College Entrance Exams and Placement Test Scores Have Declined Slightly**

	Grade Point Average	Average SAT Total	Average ACT Composite	Average CPT Algebra	Average CPT Reading	Average CPT Writing
1996-97	2.72	999	20.7	56.4	74.8	81.4
1997-98	2.76	997	20.7	54.8	74.3	80.9
1998-99	2.80	994	20.5	53.5	74.6	80.9
1999-00	2.85	993	20.5	54.0	74.5	81.2
2000-01	2.86	993	20.4	55.1	74.7	81.4
<b>Cumulative Percentage Change</b>	<b>+5.5%</b>	<b>-0.6%</b>	<b>-1.6%</b>	<b>-2.4%</b>	<b>-0.3%</b>	<b>-0.1%</b>

Note: Grade point averages are for all high school graduates; CPT scores are for students who took the test within one year of graduation.

Source: OPPAGA analysis of DOE student transcript data.

Whether the increase in grade point averages (GPA) is due to better performance or grade inflation is unclear. There are two likely explanations for the increase in GPA. On the one hand, students may work harder to get the required grades for a Bright Futures scholarship. On the other hand, grade inflation is a legitimate concern when merit-based programs award scholarships, at least in part, on the basis of GPA. Evidence suggests that both factors account for the increases in grades.

A large majority of guidance counselors we surveyed believed that students are working harder to raise their grades and test scores. Overall, 89% of the public and private high school counselors we surveyed believed that students in their schools are working harder to prepare for college. When asked how students are preparing better, 84% responded that students are working harder to raise their grade point averages and 69% responded that students are working harder to raise test scores.

However, the higher grades without a corresponding increase in exam scores also indicates that grade inflation may account for some of the change in grades. This can occur if parents and students pressure teachers to give students higher grades that do not match classroom performance in order to qualify the students for scholarships.

An analysis of college entrance exam scores indicates that grade inflation has occurred and that it primarily affects students who were at or near the Bright Futures GPA cutoff points.<sup>10</sup> We used a statistical model to separate the possible effects of grade inflation from those of other factors, such as changes in the student population or course-taking patterns.<sup>11</sup> Our model provides an estimate of what students with similar grades and other characteristics

would score on the same test in 1996-97 or 2000-01 (see Appendix A for more details).

Exhibit 11 shows that students with the same grades scored lower in 2000-01 than in 1996-97. More importantly, the largest declines were among students with grades near 3.0 or higher, the lowest Bright Futures cutoff. In the case of SAT and ACT exams, the declines in test scores occur only for students with GPAs over 2.75.<sup>12</sup> For example, a student with a GPA between 3.0 and 3.25 could have been expected to score 1049 on the SAT in 1996-97, but a similar student would score 1031 in 2000-01. For students taking college placement tests (CPT), those with GPAs above 2.25 or 2.50 scored lower in 2000-01 than similar students in 1996-97. Thus, grade inflation likely accounts for some of the reason that grades have increased while test scores remained flat.

Given the possibility of grade inflation, it makes sense to maintain the college entrance examination requirements for Bright Futures scholarships. This provides a protection against students qualifying for scholarships simply because their GPAs have been inflated to reach a cutoff score.

**More high school graduates are going on to college in Florida.** The percentage of Florida high school graduates matriculating to a Florida college has increased since the Bright Futures program was created. Slightly over half (52%) of the 1996-97 high school graduates were enrolled in a Florida community college or university in the fall of 1997 (see Exhibit 12). In contrast, 61% of the graduates of the class of 2000-01 subsequently went on to college in Florida, representing an additional 9,000 students.<sup>13</sup>

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<sup>10</sup> We use the standard college entrance and placement exams because they provide an external reference for college preparedness. While tenth grade FCAT results would provide a good external proxy for changes in grades, FCAT data is available for only the last two years of our graduate cohorts.

<sup>11</sup> We used regression models to predict performance on SAT and ACT exams. Variables used in the prediction are gender, race, free and reduced lunch status, Limited English-Proficiency status, number of advanced courses taken, and GPA.

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<sup>12</sup> The changes for some scores are not statistically significant, meaning that they could have arisen from chance. We treat these as if they represent no change. All other changes are statistically significant.

<sup>13</sup> We can track only students who enroll in a Florida college or university. It is possible that this gain has occurred because more students are choosing a Florida college instead of one outside the state. However, given the size of the increase in continuation rates, it is likely that at least part of the gain is attributable to an increase in the total number of students going on to college.

**Exhibit 11**

**Students With Similar Grades Are Scoring Lower on College Entrance Exams and Placement Tests**

SAT				CPT Math				CPT Writing			
GPA	1996-97	2000-01	Change	GPA	1996-97	2000-01	Change	GPA	1996-97	2000-01	Change
<2.0	902	906	0.0	<2.0	45.0	47.9	0.0	<2.0	78.9	82.9	4.0
2.0 - 2.25	899	903	0.0	2.0 - 2.25	49.1	50.0	0.8	2.0 - 2.25	80.1	81.4	1.3
2.25 - 2.50	933	935	0.0	2.25 - 2.50	54.4	53.4	-1.0	2.25 - 2.50	82.5	83.1	0.6
2.50 - 2.75	966	962	0.0	2.50 - 2.75	59.6	56.8	-2.8	2.50 - 2.75	84.8	84.3	-0.4
2.75 - 3.0	1008	1001	0.0	2.75 - 3.0	64.4	60.4	-4.0	2.75 - 3.0	87.2	85.8	-1.4
3.0 - 3.25	1049	1031	-18	3.0 - 3.25	70.5	66.3	-4.2	3.0 - 3.25	89.8	87.5	-2.3
3.25 - 3.50	1096	1077	-18	3.25 - 3.50	75.7	72.0	-3.7	3.25 - 3.50	92.1	90.1	-2.0
3.50 - 3.75	1155	1133	-22	3.50 - 3.75	82.7	77.2	-5.6	3.50 - 3.75	94.4	93.0	-1.3
3.75+	1256	1236	-20	3.75+	90.7	83.9	-6.8	3.75+	99.1	95.9	-3.2

ACT				CPT Reading			
GPA	1996-97	2000-01	Change	GPA	1996-97	2000-01	Change
<2.0	18.5	18.6	0.0	<2.0	77.5	80.4	2.9
2.0 - 2.25	18.1	18.0	0.0	2.0 - 2.25	78.1	79.3	1.2
2.25 - 2.50	18.7	18.6	0.0	2.25 - 2.50	80.0	80.4	0.4
2.50 - 2.75	19.3	19.2	0.0	2.50 - 2.75	81.6	81.0	-0.6
2.75 - 3.0	20.4	20.0	-0.4	2.75 - 3.0	84.3	82.2	-2.0
3.0 - 3.25	21.4	20.7	-0.6	3.0 - 3.25	85.4	83.3	-2.1
3.25 - 3.50	22.5	21.8	-0.7	3.25 - 3.50	87.4	84.8	-2.7
3.50 - 3.75	24.0	23.2	-0.8	3.50 - 3.75	89.3	87.2	-2.1
3.75+	26.4	25.7	-0.8	3.75+	93.4	90.9	-2.5

Note: Some changes are not statistically significant and are therefore shown as zero.  
 Source: OPPAGA analysis of DOE data.

Florida also has kept more of its top students. The Bright Futures program provides an incentive for Florida’s top high school graduates to stay in state for college. This is important as it increases the likelihood that such students will stay in the state after college graduation, which aids Florida’s economic development.

The percentage of students who meet the program’s highest college entrance exam score requirements and who stay in state has grown. In 1996-97, 64% of students who met the SAT and ACT test score requirements for the program’s highest award level—the Florida Academic Scholarship—subsequently enrolled in a Florida university or community college. This percentage rose to 71% of the 2000-01 high school graduates, a gain of about 400 top students who stayed in state for their higher education.

**Exhibit 12**  
**The Bright Futures Program Has Contributed to Increased Continuation to College**

Continuing to College in Florida	1996-97	2000-01
Percentage of high school graduates	52%	61%
Percentage of students whose SAT or ACT scores meet the Florida Academic Scholar cutoffs	64%	71%

Source: OPPAGA analysis of DOE data.



## How has the preparation and continuation of minority and at-risk students changed?

Minority and at-risk students have shown the largest improvement in college preparation and continuation.<sup>14</sup>

As shown in Exhibit 13, Limited English-Proficient students have shown the most improvement in terms of their academic preparation (taking all required Bright Futures coursework as well as advanced courses) and continuing on to college, followed by Hispanics and African-Americans. Lower income students, as represented by those eligible for free and reduced lunch, have also improved their academic preparation, although not as much.<sup>15</sup>

**Exhibit 13**  
The Continuation Rate Increased from 1996-97 to 2000-01 for Minority and At-Risk Students

	1996-97	2000-01
<b>Percentage of graduates taking all of the required Bright Futures coursework</b>		
African-Americans	42%	61%
Hispanics	45%	68%
Limited English-Proficient students	27%	65%
Students receiving free and reduced lunch	37%	58%
All other students	62%	67%
<b>Percentage of graduates taking at least one Advanced Placement, International Baccalaureate, honors, or dual enrollment course</b>		
African-Americans	47%	51%
Hispanics	56%	60%
Limited English-Proficient students	44%	54%
Students receiving free and reduced lunch	44%	52%
All other students	69%	71%

<sup>14</sup> For the purposes of this report at-risk students are those eligible for free or reduced lunch and those classified as Limited English-Proficient.

<sup>15</sup> Some high school students eligible for free and reduced lunch do not apply for it. As a result, this group represents a subset of low-income students. However, it is likely that the trends would be the same among those who did not apply.

	1996-97	2000-01
<b>Percentage of high school graduates continuing on to college in Florida</b>		
African-Americans	42%	53%
Hispanics	50%	60%
Limited English-Proficient students	45%	61%
Students receiving free and reduced lunch	36%	51%
All other students	57%	65%

Source: OPPAGA analysis of DOE data.

## What options exist for controlling the costs of the Bright Futures program?

The Legislature has several options to control the future costs of the program. These include increasing the eligibility requirements, increasing renewal requirements, and establishing a flat rate or indexed scholarship.

The cost of the Bright Futures program is a function of two factors: the number of recipients and the cost of tuition and fees. The most important factor driving the increase in expenditures in the program since 1997-98 has been growth in the number of recipients.<sup>16</sup> As the program has matured, the rate of growth in recipients has declined, and so the program's rate of growth has declined. However, the university system is proposing to raise tuition and fees substantially in future years. If this occurs, the cost of the program will also climb.

We assessed three options for modifying the program to control future costs. These include changing eligibility requirements, increasing renewal requirements, and establishing a flat rate or index scholarship.

<sup>16</sup> From 1997-98 to 2001-02 the number of recipients has increased from 42,326 to 98,295. Other factors affecting program cost include tuition, the mix of FAS and FMS recipients, and the rates at which current recipients renew their scholarships and graduate college.

**Eligibility requirements could be changed in several ways.** The Legislature could raise the requirements for coursework, grade point average, or college entrance examination scores. Each of these options would have different effects on the number and type of students eligible for Bright Futures scholarships.

Exhibit 14 shows how changing various requirements would affect the size of the Bright Futures recipient pool.<sup>17</sup> Raising the test requirements would result in the largest reduction in the number of eligible students, while raising the grade point average requirements would have the least effect. Increasing the course requirements has a more moderate effect, unless the requirement is increased for all four subject areas. Moreover, while it is possible to increase more than one requirement at a time, the reductions in eligibility cannot be added as some changes would affect the same students.<sup>18</sup>

The cost savings portrayed in the exhibit would grow over time as they affect more scholarship recipients. For example, during the first year only the freshman class would be affected, while in the second year, both the sophomore and freshman classes would be smaller and so the savings would increase.

**The effects of raising eligibility requirements will likely vary.** When evaluating changes to eligibility requirements, the Legislature should consider how the changes could affect student behavior. Depending on how easily students can adapt, some changes may drive increased academic performance while others may reduce the number of students eligible for scholarships.

Raising the SAT and ACT requirements too high could reduce the incentive for students to better prepare for college. We have found that middle-range students have shown the most academic

improvement since the creation of the Bright Futures program. These are the type of students who may not have considered postsecondary work prior to the Bright Futures program. Raising test scores to a high level may discourage these students from even attempting to earn the scholarships. If that happens, many of the academic gains identified in the report could be reduced or lost. However, it is likely that the scholarships would continue to attract top students to Florida colleges and universities.

**Exhibit 14  
Raising Requirements Will Reduce the Number of Eligible Recipients and the Cost of the Program**

	Maximum Percentage of Current Recipients Who Would Lose Eligibility	Maximum First Year Cost Savings (2001-02 Recipients)
<i>Florida Academic Scholars</i>		
Require four social science courses	24%	\$ 4.7M
Require four science courses	19%	3.7M
Require four math courses	13%	2.4M
Require three foreign language courses	38%	7.2M
Raise all four subject requirements	54%	10.3M
Raise the required GPA to 3.6	7%	1.3M
Raise the required GPA to 3.7	12%	2.2M
Raise the required GPA to 3.75	15%	2.8M
Raise the SAT to 1310 or ACT to 29	51%	9.7M
Raise the SAT to 1350 or ACT to 30	69%	13.1M
<i>Florida Medallion Scholars</i>		
Require four social science courses	37%	\$13.0M
Require four science courses	33%	11.5M
Require four math courses	26%	9.1M
Require three foreign language courses	65%	23.1M
Raise all four subject requirements	83%	29.4M
Raise the required GPA to 3.1	8%	2.9M
Raise the required GPA to 3.2	17%	5.9M
Raise the required GPA to 3.25	21%	7.5M
Raise the SAT to 1010 or ACT to 21	24%	8.6M
Raise the SAT to 1050 or ACT to 22	39%	13.9M

Note: Savings from multiple changes cannot be added since a second requirement change would affect some of the same students as the first change. If students change their behavior cost savings would be smaller than shown and could diminish over time.

Source: OPPAGA analysis of DOE data.

<sup>17</sup> Numbers represent the maximum percentage of students who would lose eligibility under the new requirement, based on 2000-01 graduates. Students with credit transferred from out-of-state or other school districts may still qualify. In addition, to the extent that students change their course selections the percentage that actually loses eligibility will be smaller.

<sup>18</sup> For example, raising the academic scholarship requirements to a 3.6 GPA and 1310 SAT or 29 ACT would not reduce the size of the Bright Futures population by 58% (7% + 51%), because both changes would affect the same population.

Raising course and grade requirements may produce increased academic performance and preparation but may not reduce costs. Students can take additional courses to meet increased requirements. Students also could work harder to raise their grades to meet a new higher grade point average requirement. As a result, cost savings could be smaller than shown and could diminish over time. This reflects the tradeoff between controlling costs and fostering additional improvements in academic preparation.

Changing requirements would have differential effects on minority and at-risk students. Exhibit 15 shows the maximum percentage of students who would lose eligibility by race and at-risk status. Raising course requirements would have a larger effect on white students and a relatively

smaller effect on African-Americans and Hispanics. By contrast, raising grade point average and exam requirements would affect minority and at-risk students more. As a result, raising requirements will change the distribution of Bright Futures recipients, with some changes producing proportionally more minority and at-risk students and others producing less (see Appendix B for more details).

**Establishing a flat or indexed rate for scholarships could control costs.** Awarding Bright Futures scholarships at a flat rate or indexed to tuition could reduce the effect of changes in tuition on the cost of the program and introduce new market forces. Currently, the scholarships are tied to the cost of tuition; as tuition rises so does the cost of the program.

### Exhibit 15

#### Changing Bright Futures Requirements Has Differential Effects on Minority and At-Risk Students

	All Students	African-Americans	Hispanics	Whites	Other	Students Receiving Free and Reduced Lunch	Limited English-Proficient Students
<b>Maximum percentage of current Florida Academic Scholars who would lose eligibility</b>							
Require four social science courses	24%	16%	22%	26%	15%	31%	18%
Require four science courses	19%	11%	11%	21%	9%	16%	8%
Require four math courses	13%	8%	8%	14%	10%	13%	5%
Require three foreign language courses	38%	24%	31%	40%	24%	44%	26%
Raise all four subject requirements	54%	39%	49%	57%	34%	62%	45%
Raise the required GPA to 3.6	7%	18%	8%	6%	4%	7%	8%
Raise the required GPA to 3.7	12%	24%	13%	11%	7%	13%	13%
Raise the required GPA to 3.75	15%	27%	16%	15%	10%	16%	18%
Raise the SAT to 1310 or ACT to 29	51%	69%	51%	51%	46%	60%	55%
Raise the SAT to 1350 or ACT to 30	69%	86%	71%	69%	61%	80%	74%
<b>Maximum percentage of current Florida Medallion Scholars who would lose eligibility</b>							
Require four social science courses	37%	35%	40%	37%	35%	41%	45%
Require four science courses	33%	26%	27%	35%	24%	30%	21%
Require four math courses	26%	20%	20%	28%	19%	23%	15%
Require three foreign language courses	65%	62%	54%	68%	61%	64%	55%
Raise all four subject requirements	83%	80%	79%	84%	78%	85%	80%
Raise the required GPA to 3.1	8%	9%	10%	8%	7%	8%	10%
Raise the required GPA to 3.2	17%	19%	18%	16%	13%	15%	18%
Raise the required GPA to 3.25	21%	24%	22%	21%	16%	20%	23%
Raise the SAT to 1010 or ACT to 21	24%	37%	29%	22%	27%	33%	36%
Raise the SAT to 1050 or ACT to 22	39%	55%	46%	36%	41%	52%	54%

Source: OPPAGA analysis of DOE data.

## *Program Review*

A flat or indexed rate would eliminate or reduce the link between tuition costs and the cost of the program. For example, the scholarships could be for a set amount, such as \$3,000 annually, rather than as a percentage of actual tuition. Since the awards are now linked to tuition, the Legislature must balance the need for tuition increases with their fiscal impact on Bright Futures.<sup>19</sup> An indexed or flat rate would make it possible to consider tuition changes and Bright Futures costs separately.<sup>20</sup>

A flat rate also could introduce new market pressures on university and student decision making. Knowing that the Bright Futures scholarship has a fixed value, universities would have to consider whether a proposed tuition level would make their institutions less attractive to the state's best students.

This option would have varying effects on public colleges and universities. Some universities may be able to set higher tuition rates and still attract top students. Other universities may choose to price themselves at, or even below, the value of the scholarships so as to be more competitive. Community colleges, whose tuition rates are below that of universities, may become more competitive for Bright Futures students since these students could pay tuition and have money left over.

Students also would have to weigh the relative value of the scholarship and the institution's tuition. The current structure of paying 100% of the cost of whichever institution the student attends does not encourage this kind of market-driven decision making.

A flat or indexed rate that is too low could reduce the incentives provided by the program. For example, a low (such as \$1,000) scholarship award may not be enough to persuade top students to attend college in Florida, as they may receive high scholarship offers from out-of-state institutions. A low scholarship award also may weaken the program's impact on inducing more

average students to work hard in school. Thus, the Legislature will have to balance the incentive produced by the award with the overall cost of the program.

Our survey of guidance counselors reflected this tension. We asked the public and private school guidance counselors whether a flat rate would encourage or discourage student effort. Overall, 21% of the respondents felt this change would discourage students, while 29% felt it would encourage students (depending on what level the scholarship was set at), and 50% were not sure.

**The number of credit hours required for renewal could be increased.** Currently, students must earn 12 credit hours per year to renew their award. This could be increased, with students taking less than the required credit hours receiving no award or a partial award.

Requiring Bright Futures students to maintain 24 credit hours per year or receive reduced awards would have two potential benefits. First, it would help ensure that students progress through college by encouraging them to take a full load each semester. The program's current renewal requirements equate to a part-time status. In contrast, students must take 24 credit hours per year to maintain the full Florida Student Assistance Grant, a need-based program.

Second, increasing the course requirements would eliminate the incentive that students have to drop courses to maintain their grade point averages. Currently, students who enroll in more than 12 credits per year may drop or withdraw from some of those courses and still qualify for renewal.<sup>21</sup> As a result, the program may create an incentive for students to drop difficult and challenging courses in order to maintain their required grade point average. Recent studies have found that students receiving merit-based aid in Georgia and New Mexico were taking fewer credit hours in college.

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<sup>19</sup> Changes in tuition policy will also affect the Florida Prepaid Program.

<sup>20</sup> The Bright Futures program already provides a flat rate award for eligible students who attend a private college or university.

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<sup>21</sup> When students drop courses the credits still count against the students' overall limit on the number of hours paid by Bright Futures. Thus, the students will be able to renew their scholarships but may not have enough credits to complete their degree using their scholarships.

This disincentive can be reduced by requiring students to renew based on the number of credit hours for which they were funded. If a student begins the year as a full-time Bright Futures recipient, he or she must complete 24 credit hours that year or lose eligibility for the program. Part-time students would receive a prorated award but would need to complete just 12 credit hours to renew their scholarships. This would match the renewal requirements for students receiving need-based aid and it would reduce the incentive for students to drop courses to maintain their grade point averages. It also forces students to be accountable for progressing at a rate equal to their level of funding. The net result would likely be more students taking a full credit hour load and possibly a decrease in renewal rates.

## **Recommendations**—————

**The Legislature should require all Bright Futures recipients to complete the Free Application for Federal Student Aid (FAFSA) and should continue to use test scores as a criteria for awarding scholarships.**

While we identified at least 36% of Bright Futures recipients as having unmet need, a large proportion of recipients never applied for financial aid by completing the Free Application for Federal Student Aid (FAFSA). This has consequences for the student and the state. The students and families not completing a FAFSA reduce their opportunities to receive federal and state aid. For the state, having FAFSA information on all students would allow policymakers to better assess the level of financial need and to target state resources accordingly.

The state should also continue to use test scores as one of several criteria in awarding Bright Futures scholarships. Since the test score cutoffs are typically the most difficult to achieve, eliminating them would dramatically increase the size of the program. Moreover, the rate of future growth could then depend on whether additional grade inflation took place.

## Appendix A

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# Methodology

To assess the effects of the Bright Futures Scholarship Program we compared the high school class that graduated immediately prior to the implementation of the program (1997) with the following four graduating classes (1998-2001). We examined their coursework, grade point averages, college entrance exam scores, and whether they continued on to a postsecondary institution. We supplemented this information with the opinions of high school guidance counselors. In addition, we analyzed financial need information for Bright Future recipients enrolled in a state university or community college in the fall or spring of the 2000-01 academic year.

### *Cautions*

The Bright Futures program is one of several policy initiatives, such as the One Florida Talented 20 initiative, the A+ Plan, and the Algebra I high school graduation requirement, that are intended to improve the preparation of high school students and to increase their continuation on to college. To the degree that data were available, we examined these rival explanations when doing the analyses and found that the Bright Futures program remains a significant contributing factor.

The percentage of graduates going to college and the average SAT, ACT, and CPT scores that we report are similar to those reported in Department of Education publications. Differences are due to different selection criteria for defining graduating classes and the level of success we had in matching information from several databases (see *Data collection* below).

Our analysis of the financial need of Bright Futures recipients is limited to those who filled out a federal financial aid application. Most recipients did not complete this form (49% of recipients attending a state university and 66% of recipients attending a community college). We do not know if the Bright Futures award eliminated these recipients' financial need or if the recipients could afford college without the Bright Futures award.

### *Data collection*

We used existing Florida Department of Education databases to compare the academic performance of high school graduating classes. These databases contained information on student demographics, courses, graduating grade point averages, college entrance exam scores, and Bright Futures eligibility and awards. Table A-1 describes these databases.

In addition, we solicited the opinions of public and private high school guidance counselors by holding focus groups with counselors in Alachua, Duval, Jackson, Leon, and Orange counties. Based on this information, we developed a survey that we sent to a random sample of 400 public high school guidance counselors. We also sent the survey to private high schools with enrollments of at least 500 students. To increase response rates, we contacted the counselors who did not respond to the initial survey at least two additional times. Sixty percent of the public high school

guidance counselors responded. Guidance counselors from 72% of the private high schools contacted responded.

**Table A-1**  
**Florida Department of Education Databases Used in the Analyses**

Databases	Description
Student End-of-Year Status	Contains diploma type information and graduating GPAs. Used to select students who graduated with a standard high school diploma
Student Course Transcript Information	Contains student course information, grades 9-12
Student Demographic Information	Contains student demographic information
SAT data	Contains student SAT scores
ACT data	Contains student ACT scores
College Placement Test (CPT) data	Contains student CPT scores
Bright Futures	Contains information on student eligibility, disbursements, and postsecondary institution attended
Florida Education and Training Placement Information Program (FETPIP)	Contains information on postsecondary education experience
Bright Futures Comprehensive Course Table	Lists courses that meet Bright Futures eligibility requirements
High School Course Code Directory	Contains course information. Used to identify college preparatory courses

Source: Florida Department of Education.

To analyze the impact of the Bright Futures Scholarship on recipients' financial need, we used enrollment and financial aid awards databases from the Division of Colleges and Universities and the Division of Community Colleges. We supplemented this information with federal financial aid application information obtained from state universities and community colleges. We gathered this information on Bright Futures recipients who were enrolled in a state university or community college in the fall or spring of the 2000-01 academic year.

***Analysis of grade point averages and college entrance exam scores***

Our analyses indicated that the grade point averages of high school graduates have increased and the average college entrance exam scores (SAT, ACT, and CPT) have declined slightly. We attributed part of the increase in grades to grade inflation and the decline in exam scores to the addition of academically weaker students to the pool of test-takers.

To determine if the changing makeup of students taking college exam scores affected the average 2000-01 exam scores, we adjusted the average scores by making the distribution of the test-takers based on GPAs match that of 1996-97 test-takers. For example, from 1996-97 to 2000-01 the percentage of students taking the SAT with grade point averages below the 60<sup>th</sup> percentile increased. During the same time, the percentage of students taking the SAT with grades in the top 30% decreased. As a result, more of the students taking the test were average and fewer were above average.

## *Program Review*

We multiplied the average 2000-01 SAT score for each grade group based on deciles by the 1996-97 percentage of students taking the test in that deciles group. This produced what the average SAT would have been in 2000-01 if the distribution of students taking the test had matched that of 1996-97 (fewer lower percentile students, more from the higher percentiles). The results for the SAT, ACT, and CPT indicate that without the shift in students average exam scores would have remained flat or increased slightly.

To examine whether grade increases indicate better academic preparation or grade inflation we used a statistical technique that allowed us to take into account the effect of factors that could have influenced changes in average grades. Average grades could change for a variety of reasons, including increased student effort, better or more talented students, and changing proportions of minority and at-risk students. After taking into account all of these factors we found evidence of grade inflation.

We used dummy-variable regression to predict performance on college entrance exam scores for 1996-97 and 2000-01 graduates. The variables used to predict performance include gender, race, ethnicity, at-risk status (Limited English-Proficiency and eligibility for free or reduced price lunches), and advanced coursework (Advanced Placement, International Baccalaureate, honors, and dual enrollment). To these we added variables to represent groups of students with similar grades (i.e., less 2.0, 2.0 to 2.25, 2.26 to 2.50, etc.), the 2000-01 graduating class, and an interaction between grades and the 2000-01 class.

The results of this regression provide a measure of changes in exam scores for similar students between 1996-97 and 2000-01. Because the regression compares performance to the 1996-97 students with a GPA below 2.0, the constant in the equation represents their predicted exam scores. For each of the other groups of students, their adjusted 1996-97 score is equal to the constant plus the coefficient for their variable. The 2000-01 scores are created by adding in the coefficients for the variable for the year and the coefficients for the appropriate interactions between the year and the grade grouping. This score is then compared to the 1996-97 score to determine how much scores changed for students in that range of grades after controlling for the factors cited above. Since some of the coefficients are not statistically significant, the predicted score for those groups will equal the constant.



## *Appendix B*

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# Changing Bright Futures Requirements Has Differential Effects on Minority and At-Risk Students

Table B-1 shows the likely percentage of Bright Futures recipients who would be minority or at-risk students after raising each criterion. Since raising each requirement has a different effect on minority and at-risk students, some changes would result in a decline in both the number of minority and at-risk students and their proportion of recipients. That is, those groups could be disproportionately affected. Raising course requirements would result in fewer students qualifying for a scholarship, but of those that qualify a slightly higher proportion would be minority or at-risk students. Raising GPA and exam score requirements also would reduce the number of students qualifying for scholarships and it would reduce the proportion who are minority or at-risk students. For example, currently 3.2% of Florida Academic Scholars recipients are African-American. If Bright Futures required four math courses, up to 13% of high school graduates and 8% of African-Americans would no longer qualify for as a Florida Academic Scholar (see Exhibit 15). As a result, African Americans would make up 3.6% of the recipients after implementing this change. Similarly, raising the Florida Medallion test score requirement to 1010 would exclude 24% of current recipients. At the same time the percentage of Medallion Scholars who are Hispanic would decline from 11% to 10.4%.

**Table B-1**  
**Percentage of Bright Futures Recipients Who Would Be Minority or At-Risk Students After Raising Each Criterion**

	Distribution of Bright Futures Recipient Population--The Percentage of Recipients That Are						Students Receiving Free and Reduced Lunch	Limited English - Proficient Students
	African-Americans	Hispanics	Whites	Other	All Graduates			
<b>Florida Academic Scholars</b>								
<b>Current</b>	<b>3.2%</b>	<b>7.4%</b>	<b>81.5%</b>	<b>7.8%</b>	<b>100%</b>		<b>3.3%</b>	<b>3.3%</b>
Require four social science courses	3.6%	7.6%	80.0%	8.7%	100%		3.0%	3.5%
Require four science courses	3.6%	8.2%	79.5%	8.7%	100%		3.4%	3.8%
Require four math courses	3.4%	7.8%	80.7%	8.0%	100%		3.3%	3.6%
Require three foreign language courses	4.0%	8.3%	78.3%	9.5%	100%		2.9%	3.9%
Raise all four subject requirements	4.3%	8.3%	76.2%	11.1%	100%		2.7%	4.0%
Raise the required GPA to 3.6	2.8%	7.3%	81.8%	8.0%	100%		3.3%	3.2%
Raise the required GPA to 3.7	2.8%	7.3%	81.7%	8.2%	100%		3.3%	3.2%
Raise the required GPA to 3.75	2.8%	7.4%	81.6%	8.2%	100%		3.3%	3.3%
Raise the SAT to 1310 or ACT to 29	2.0%	7.4%	82.2%	8.4%	100%		2.7%	3.0%
Raise the SAT to 1350 or ACT to 30	1.5%	6.8%	82.1%	9.6%	100%		2.1%	2.7%
<b>Florida Medallion Scholars</b>								
<b>Current</b>	<b>9.1%</b>	<b>11.0%</b>	<b>74.7%</b>	<b>5.1%</b>	<b>100%</b>		<b>8.7%</b>	<b>5.8%</b>
Require four social science courses	9.3%	10.5%	75.0%	5.2%	100%		8.1%	5.0%
Require four science courses	10.0%	11.9%	72.5%	5.6%	100%		9.1%	6.7%
Require four math courses	9.9%	11.9%	72.8%	5.5%	100%		9.1%	6.6%
Require three foreign language courses	10.1%	14.6%	69.7%	5.6%	100%		9.1%	7.4%
Raise all four subject requirements	10.7%	13.8%	69.0%	6.5%	100%		8.0%	6.9%
Raise the required GPA to 3.1	9.1%	10.8%	74.9%	5.2%	100%		8.8%	5.7%
Raise the required GPA to 3.2	8.9%	10.9%	74.9%	5.3%	100%		8.9%	5.7%
Raise the required GPA to 3.25	8.8%	10.9%	74.8%	5.5%	100%		8.7%	5.8%
Raise the SAT to 1010 or ACT to 21	7.6%	10.4%	77.1%	4.9%	100%		7.7%	4.9%
Raise the SAT to 1050 or ACT to 22	6.8%	9.7%	78.7%	4.7%	100%		6.9%	4.3%

Note: The distribution for at-risk students is separate from that shown by race. Those columns cannot be added because they include overlapping groups of students.

Source: OPPAGA analysis of DOE data.



## The Florida Legislature

# *Office of Program Policy Analysis and Government Accountability*



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