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SPECIAL REPORT

research • communication • advocacy • support

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January 15, 2009

Dear Floridians,

ENLACE FLORIDA has promoted college readiness, access, and success for limited-income and minority students through research, communication, advocacy, and support. Through our Florida Access and Success Initiative, we received funding to consult with education experts on the critical issues facing public education. As part of our effort to promote greater public understanding of the financial obstacles that hinder access to our state universities, we commissioned an independent study of the Bright Futures Scholarship Program from the country's leading expert on financial aid, Dr. Edward St. John.

Dr. St. John is the Algo D. Henderson Collegiate Professor at the Center for the Study of Higher and Postsecondary Education of the University of Michigan. For three decades he has concentrated his research and teaching on expanding opportunity and promoting equity in higher education. His recent books, *Refinancing the College Dream* (John Hopkins, 2003) and *Public Funding of Higher Education* (John Hopkins, 2004) confirmed his status as one of the leading scholars in higher education policy.

Dr. St. John brings to his study of Florida's Bright Futures Scholarship program the detached and objective perspective of an expert from outside the state. I think you will find his analysis of this controversial and popular program fair and balanced. He offers praise, criticism, and recommendations that are driven by data analysis rather than politics or a personal agenda. He found, for example, that more and more high school graduates are going on to college in Florida, and that Hispanic student enrollment in public four-year colleges has increased since the creation of the Bright Futures Scholarship program. At the same time, he also argues that the SAT scores of Florida students have dropped significantly in the last ten years, particularly in math. He therefore concludes that Bright Futures "*has not improved high school preparation, which undermines one rationale for its continuation*."

This stunning conclusion should compel us all to pause and consider this recommendation carefully: "***Given the Bright Futures Scholarship Program did not produce all of the intended results and the deteriorating financial conditions in Florida and the U.S., it is an opportune time to consider a wide range of reforms to the program.***" He points us in the direction of investing our limited resources more wisely, based in part on student financial need.

We are honored to release this special report with the hope that it will contribute to a healthy public debate. Dr. St. John's report does not reflect the official positions of ENLACE FLORIDA nor does it exhaust the study of merit versus need-based aid. However, he clearly recommends a move toward allocating more state aid on the basis of financial need. At a time when a Bright Futures Scholarship covers no more than 25% of the total costs of attending a state university, we are eager to second this recommendation and will soon issue a policy brief analyzing federal and state financial aid policies. For now, let us all consider the findings and recommendations of a leading expert in the field.

Sincerely,

Paul J. Dosal
Executive Director
ENLACE FLORIDA

The Impact of the Florida Bright Futures Scholarship Program on College Preparation and Access for Low-Income and Minority Students

January 2009

A Special Report Prepared By
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This paper was prepared for ENLACE FLORIDA with financial support from ENLACE FLORIDA and the Ford Foundation. Daniela Pineda and Krystal Williams assisted with development of the trend analyses presented. In addition, Paul Dosal (ENLACE FLORIDA) and Daniel Cohen-Vogel (Assistant Vice Chancellor, State University System of Florida) provided thoughtful and helpful reviews of this report. The interpretations are the authors' and do not represent official policies or positions of funding organizations.

Executive Summary

The Florida Bright Futures Scholarship Program, funded by the state lottery, was implemented in 1997 to replace the state's prior merit grant program. When created, legislators aligned the program with advanced high school courses and rationalized it, based at least in part, on the grounds that it would improve academic achievement and prepare more students for college. Other rationales often used regarding merit grants—improvement in college access for prepared students and improved retention of educated students from the state higher education system in the state labor force (i.e., reduce "brain drain")—are also frequently posited as arguments for continuing this program.

This report examines educational outcomes related to the implementation of Bright Futures since its inception. In addition to considering the intended effects—to improve completion of advanced courses and academic achievement by high school students aspiring to enroll in college—we also consider some unintended effects, including the program's impact on college enrollment rates and minority representation in public higher education. Critics of Florida's program have argued that the distribution of merit-based aid can favor wealthy or white students over low-income students and underrepresented minorities.

When examining the effects of a single program, one must also consider other policies and programs that can influence outcomes related to preparation and college access. To build an understanding of the outcomes related to implementation of Bright Futures more than a decade ago, this paper examines trends related to preparation and college enrollment, including racial/ethic representation in public and private higher education. In addition, we examine other policy changes implemented during this same period that could have influenced intended, or unintended, outcomes.

Implementation of the program in 1997 means that its influence could be seen in the academic preparation for the high school classes of 2000 and beyond. An examination of trends before and after the implementation of Bright Futures reveals:

- A decline in high school graduation rates after 2000, a period when the national rate remained stable, although state-reported trends are counter to this finding.[1]
- A decline in SAT math scores after 2000, a period when SAT scores improved nationally.

The trend analyses, along with the analyses of other policies implemented in the state and a review of related research indicate these unintended consequences of Bright Futures have been overlooked. The primary positive outcome has been:

- Implementation of Bright Futures in the state of Florida is associated with improvement in college continuation rates by high school graduates.

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[1] http://www.flgov.com/release/10352

While the overall continuation rate has improved, there have been notable improvements in diversity within public colleges.[2] A close examination of trends indicates that implementation of the state's Top 20% Admissions Plan ("Talented 20") coupled with the availability of Bright Futures has contributed to the following changes in diversity since 2000:[3]

- Increasing numbers and percentages of Latino/a students enrolling in public four-year colleges rather than public two-year colleges.
- Increasing numbers and percentages of white students enrolling in public two-year colleges rather than public four-year colleges.

There was also a steady pattern of improvement in representation of African Americans in Florida higher education between 1992 and 2004, including improved representation in public four-year colleges between 1992 and 2002. Implementation of the Top 20% Admission Plan did not alter this outcome. Instead, it appears improvements in high school graduation requirements introduced a higher-level curriculum to urban schools leading to improvements for African American students.

Given the Bright Futures Scholarship Program did not produce all of the intended results and the deteriorating financial conditions in Florida and the U.S., it is an opportune time to consider a wide range of reforms to the program. One option would be to cap (or freeze) the maximum award for students without demonstrated financial need. If this step were taken, additional funding could be targeted on students with the greatest financial need, reducing the cost effects associated with tuition increases for these students.

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[2] We calculated representation of a group in higher education with a ratio of: (percent of racial/ethnic group in the college type in the state)/(percent of the group in the population of the state)

[3] We looked at high school graduation rates starting in 2000, under the assumption that it would have taken a few years for the program to have an influence on high school courses completed.

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Introduction

The Florida Bright Futures program has been controversial, with strong and vociferous support coupled with serious critiques from Florida citizens and external experts. While the program was implemented in 1997 to promote academic preparation for college, reward high school students and encourage more of them to enroll in college, critics argued that the program would undermine college access for low-income and minority students. Given these concerns, this paper addresses two critical questions. One, does the Florida Bright Futures program improve academic preparation for college? Two, does it promote equity in college access for low-income and historically underrepresented minority students?

To address these questions, this paper reviews the features of the Florida Bright Futures program, examines trends in college preparation and access, and considers other policy changes in Florida that could have influenced these outcomes. Research on the effects of state education and public finance policies is also reviewed.

Florida Bright Futures Program

The advocacy for and criticisms of Florida's Bright Futures and other merit-based state grant programs are based, at least in part, on research on student outcomes. Florida's press and other media often portray grant programs positively (e.g., Ward, 2007), but there have also been reports of disproportional aid awards across racial groups and increased inequality in college access (e.g., National Center for Fair and Open Testing, 2002a). Before examining the impact of the Bright Futures Scholarship Program on college readiness and access, it is important to reconsider the features of the program as well as to take a closer look at popular commentary on the program.

Program Features

Precursor programs (e.g., Florida Undergraduate Scholars Fund [FUSF]) which operated prior to 1996, were aimed at combating brain drain and rewarding college preparedness. In a Commission of Education report to the legislature, the goals of Bright Futures when implemented in 1997 were to:

- Encourage college preparedness (alignment of high school preparation with state university admissions policies).

- Combat the deflating value of the prior program's (FUSF) flat awards by securing an award amount equal to tuition (Winn, 2005).

Over time, other intents for the program have been expressed in the press and other media, including improving college access for prepared students and reducing brain drain, rationales used by other states to promote merit programs (Cohen-Vogel & Ingle, 2007). Anther implicit goal was to subsidize tuition for middle-income students, a controversial policy goal that had been explicit in the Georgia Hope program that preceded Bright Futures (Heller & Marin, 2002).

Outcomes related to preparation and enrollment are considered here because of the wide range of arguments now being used to support the continuation of the program. It should be noted that the Bright Futures Scholarship Program used a state lottery to provide more stable funding, and that it replaced a prior merit based program.

The award criteria reflect the academic intent, but the program also provides support for students who enroll in technical programs. The Florida Bright Futures program is awarded to Florida residents who enroll in eligible public and private programs within three years of high school graduation. The Bright Futures program has the following components:

- *Florida Academic Scholars (FAS)*: Requires a 3.5 GPA; 1270 SAT/28 ACT or IB Diploma; National Merit, Achievement, or National Latino/a Scholar, or Home Education; and 75 hours of public service when a college prep HS diploma is chosen. The award was set at 100% of tuition plus $600 per year for educational expenses.

- *Academic Top Scholar:* Awarded to one top-ranked FAS recipient per county.

- *Florida Medallion Scholars (FMS)*: Requires HS standard diploma or GED, 3.0 GPA in 15 College Prep courses plus 970 SAT/20 ACT, but no community service. The first year, recipients receive $1,500 for educational expenses in addition to 100% of tuition and fees at any postsecondary institution.

- *Gold Seal Vocation Scholars (GSV)*: Requires HS standard diploma or GED, 3.0 GPA in 15.5 hours of HS Core Courses, minimum 3.5 GPA in 3 Vocational Courses and no community service. Award equals 75% of tuition and fees.

- To keep their awards, students must maintain a 3.0 GPA for FAS and 2.75 for FMS and GSV with at least 6 hours per term.

- Students who attend private institutions receive an amount equivalent to what they would have received for a public institution.

The award criteria essentially set preparation thresholds for students in different high school tracks, encouraging an alignment between different types of academic preparation in high school and the financial opportunity to enroll in college. Merit grant programs are not explicitly designed to meet financial need; however, low-income students are the most likely to respond to embedded financial incentives. For example, students with grades above 2.75 but below 3.0 might consider taking a vocational course if they have financial need, an option in the Bright Futures program but not in some other state and federal grants.

The financial incentives created by Florida Bright Futures are complex, attempting to align different patterns of student preparation with enrollment in different types of colleges and programs. While the GPA requirements to maintain grants can influence major choices (Hu, 2008), these intermediate program effects are not a primary focus of this review.[4] Given the extensive commentary on the program in the popular press, this paper focuses on the potential effects of the program on preparation (the initial program intent) and on equity in college access (an unintended consequence of the program).

[4] Given that the program requires college students to maintain a minimum GPA but does not require any specific courses during college, it is only logical that it could influence students at the margin for grades to avoid tough courses during college, a logic confirmed by Shouping Hu (2008).

Critiques and Reform Efforts

While the intent of the program was to encourage academic preparation, most of the criticism has focused on enrollment effects. The literature includes the following commentary:

- Scholars and the press have documented the gap in awards for African Americans and Latinos/as compared to Whites, arguing that the program adds to disparity in the opportunity to enroll in college (Dynarski, 2002, 2004; Heller, 2002, 2004a, 2004b; Redd, 2003), an issue that has been widely reported (National Center for Fair and Open Testing, 2002b; Miller, 2008).

- There has been criticism of the program because of the standards; some reports have argued the scores required for awards are too low (Kormanik, 2002).

- Research indicates that low-SES families benefit less from Bright Futures than high-SES families (Heller, 2004a; Stranahan & Borg, 2004).

- The indexing of awards to tuition may influence tuition increases, thus constraining funding for public universities (Braun, 2008; Colavecchio-Van Sickler, 2007).

- The program is criticized in the press as a reverse Robin Hood program (Braun, 2008), generating money from low-income families through the lottery to pay for the college costs of students from wealthy families.

In addition to the political pressure, the Florida lottery revenue (i.e., Education Enhancement Trust Fund) prioritizes Bright Futures over discretional allocations to education institutions (i.e., subsidies to schools and colleges). To the extent that college tuition charges rise, the Bright Futures funding rises and resources for discretionary distribution decline. Thus, raising tuition can reduce

allocations to colleges, which in turn could increase demand on the Education Enhancement Trust Fund for the Bright Futures program. This pattern has become more problematic given the decline in other sources of tax revenues used to fund public education in Florida.

There have been efforts to revise the Bright Futures program since its inception, with issues ranging from addressing inequalities to raising requirements for awards (Adams, 2007). However, the state has found it difficult to amend the program because of its popularity, especially among middle-income students (Kronholz, 2003). For example, a recent legislative attempt to limit awards to science fields ran into organized student protests (Morales, 2008). The only modification approved to date has been to place more emphasis on advanced placement courses and testing.

The Florida Bright Futures Scholarship Program provides financial rewards to students who take specific pre-college courses and receive high grades in these courses. Given the monetary reward provided to students for this pre-college academic behavior, college students are among the most politically active advocates for the program.

Student advocacy for the program is appropriately viewed as being in their self-interest. Student aid increases in importance to students and their parents as college tuition rises. Most of the criticisms of the program, however, raise issues related to social justice and inequality. In order to untangle these arguments, it is necessary to examine trends in preparation and college access as well as to review changes, if any, in other policies that could influence preparation or college enrollment by diverse groups of students.

If there is limited capacity for growth at public colleges and universities, keeping more talented students in the state of Florida (i.e., reducing the brain drain) could reduce access to four-year colleges for low-income students who qualify for admission but do not earn the Bright Futures award. In this case, the college continuation rate for high school students would decline. Given these complexities, it is important to examine a range of outcomes related to the program features (i.e., incentives for preparation and enrollment of diverse students).

The Review Approach

This paper uses a review of trends, policy and research to fill gaps in understanding of the Florida Bright Futures program. In particular, we examine the implementation of the program in relation to other policies that can also influence preparation and enrollment.

Knowledge Gaps: There are two themes about the Bright Futures program that emerge from the academic literature, but there are gaps evident in this work to date:

- First, the Bright Futures program has been studied as an "innovation" that was implemented as part of a diffusion process concentrated largely in the southeastern U.S. (Cohen-Vogel, & Ingle, 2007; Cohen-Vogel, Ingle, & Levine, 2008; Ingle, & Cohen-Vogel, 2007). This literature tends to overlook the intent and outcomes related to implementation.

- Other studies focus on the effects of merit aid (Dynarski, 2002; Heller, & Marin, 2002, 2004) on college enrollment and overlook the impact on preparation, a major intent of the program.

- The policy reports prepared by state agencies in Florida have focused on the effects of indicators of preparation and affordability, on enrollment (e.g., OPPAGA Program Review, 2003) and retention (OPPAGA Program Review, 2004). These reports indicate there has been improvement in preparation and enrollment (e.g. Harkreader, Hughes, Tozzi, & Vanlandinghan, 2008) but do not consider other programs and policies that could have influenced these outcomes or the unintended consequences of the program. For example, prior students indicate that merit programs which create

academic thresholds for eligibility for student aid could discourage some low-income students from graduating from high school (St. John, 2006).

Filling the Gaps: This report provides a systematic analysis of outcomes related to preparation, college enrollment and diverse representation in higher education. The analyses of representation consider full-time equivalent enrollment (FTE) rather than first-time enrollment rates and, as a consequence, provide an indicator of enrollment that includes all students and serves as an indicator of retention as well as initial enrollment. Changes in these outcomes could be related to implementation of the Bright Futures program, but there are also other state education and public finance policies that could influence these outcomes; these policies are also considered, thus avoiding the false impressions that can be created by focusing on a single program, a limitation of most state policy research. State policies are implemented in complex contexts in which there are numerous policies already in place. It is short sighted to consider only one program because the mix of policies in place at any given time influences outcomes observed in a state.

In addition, it is important to interpret trends in policies in relation to prior cross-section and time-series studies that have considered the effects of these same policies across states. Specifically, if a pattern of policy links observed within a state is consistent with national research on policy implementation, there is better reason to assume a linkage.

Limitations

This report uses a database on state indicators developed originally as part of a project conducted for the Lumina Foundation for Education (St. John, Chung, Musoba, Simmons, Wooden, & Mendez, 2004). This database has been used in studies of academic preparation and college enrollment in the states (St. John, 2006) and was updated as part of more recent projects conducted for the Lumina and Ford Foundations. The indicators provide an excellent resource for comparing states. There are, however, a few limitations of the measures used in this report.

First, we examine high school completion rates for public high schools using a measure developed by Tom Mortensen (www.postsecondary.org). This measure is based on the size of the ninth grade cohort. Since many students fail Florida's tenth grade test, the ninth grade measure of graduation rates is lower than a measure that focuses on eleventh graders. In addition, since migration is an issue, this simple ninth grade rate is not often used in Florida. However, this is generally available and is consistently applied to all students, so it is useful in the analysis of trends and comparisons of students which are purposes of this report.

Second, we also use Mortenson's college continuation rate measure. This rate uses the estimated high school graduates (public plus estimated private school graduates) divided by the fall enrollment for students from Florida reported by colleges and universities in Florida and other states. There is an uneven history of out-of-state students in the Integrated Postsecondary Data System (IPEDS) which is used in this ratio. This problem affects all states and therefore should not be problematic with respect to analysis of trends or comparisons of states. In addition, some states may have trouble reporting data to IPEDS, which could be problematic. However, the measure we use remains the best available measure for the period studied in this report.

Third, as part of the Ford Foundation project on "Promoting Equity in Higher Education" we developed the first set of national indicators for racial/ethnic representation in higher education. Our measures construct a ratio of the percent of a group in the state's FTE in each type of state higher education institution divided by the percent of the group in the population. We used a common method to estimate FTE, dividing part-time students by three to generate FTE for part-time students. The indicators reported in this paper are available for all states at www.ncid.umich.edu/promotingequity. In addition, rather than using the college-age

population, we used the general population. College students can be of any age, so it would be misleading to compare FTE (people of any age) to a population of a specific age group. This was the most straightforward way to develop a comparative indicator. For a state like Florida with a large population of senior citizens who are white, this measure underestimated representation of whites in higher education compared to other racial/ethnic groups. However, since these measures are consistently calculated across years they prove an appropriate indicator of change over time. In addition, since senior citizens pay taxes and can enroll in higher education, it is appropriate to include them in the population in Florida and in the rest of the U.S.

Fourth, we use other state indicators available at our website (www.ncid.umich.edu/promotingequity/). These indicators were developed for analyses of college access (St. John, 2006) and have been updated. Our method of developing indicators attempts to adjust for inconsistencies in reporting. Development of state indicators requires summing across institutions. Institutions report enrollment and financial data on different forms so there are unavoidable inconsistencies. Our method involves checking for missing data in a ratio at the institutional level before summing and dividing for a specific indicator. If an institution does not report data needed for part of the ratio, it is excluded from the summations used to construct the state level ratio, a procedure that improves the accuracy of the indicators.

Finally, the measure of student aid spending per FTE is calculated by dividing the total amount of state funding (from NASSGAP reports) by the total public and private FTE from within the state. It is not possible to break this measure down by type of institution because states report the funding for need-based and non-need aid by program, not broken down by the type of institution in which the student enrolls. Since Florida and comparison states are subject to the same limitations, the analyses in this report provide a fair comparison using the best available set of state indicators.[5, 6]

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[5] In text and footnotes we try to recognize interpretive issues that may be of concern to policy makers in Florida.

[6] Our focus in this paper is the relationship between policy implementation and student outcomes. It is necessary to use consistent available indictors for this purpose.

Preparation and College Access

The claims and counter claims about Florida's Bright Futures Scholarship Program look at academic preparation for college as the intended outcome and college access as the unintended outcome. As a first step in addressing one of the central questions in this paper, trends in indicators in relation to preparation and access are examined below.

Academic Preparation for College

Academic preparation for college, the outcome Bright Futures was designed to influence, occurs before college. The program provides a monetary incentive to prepare for college. The implicit claim in this type of program design is that implementation of a program will influence decisions students make about the courses they take in high school as well as their achievement in these courses. However, since there is also a grade point requirement, students may be motivated to avoid difficult courses if they are close to the GPA requirement for the program. In addition, many students may not be aware of specific grant programs until their junior or senior year when they begin thinking about specific colleges and aid programs.

High School Graduation: The intent of the Bright Futures program was to improve college readiness through financial incentives for preparation. Prior research examining the impact of state merit scholarships indicates that, controlling for other factors in analyses of time series data for states, state funding per fulltime equivalency student (FTE) for merit scholarships during the freshman year is negatively associated with high school graduation rates (St. John, 2006). While it is possible that merit scholarships provide additional incentives for students who are close to the necessary GPA for the scholarship, students who are not close to that threshold experience the opposite incentive and may drop out if they perceive there is no way they can make up the achievement gap. In fact, a prior national study on the topic (St. John, 2006) found a positive association between state funding of merit grants and the high school dropout rate.

If Bright Futures had an influence on high school graduation rates, it should be evident after 2000: the Bright Futures program was implemented for seniors in 1998 when students in the class of 2000 were sophomores. It should be noted that high school graduation rates declined in Florida between 2000 and 2004, while they increased nationally (Figure 1). However, there was a slight upturn in this rate in Florida in 2006, indicating a narrowing of the gap. But there was still a 10 percentage point differential between Florida's high school graduation rate and the national rate in 2006; this is larger than the differential in 1992.

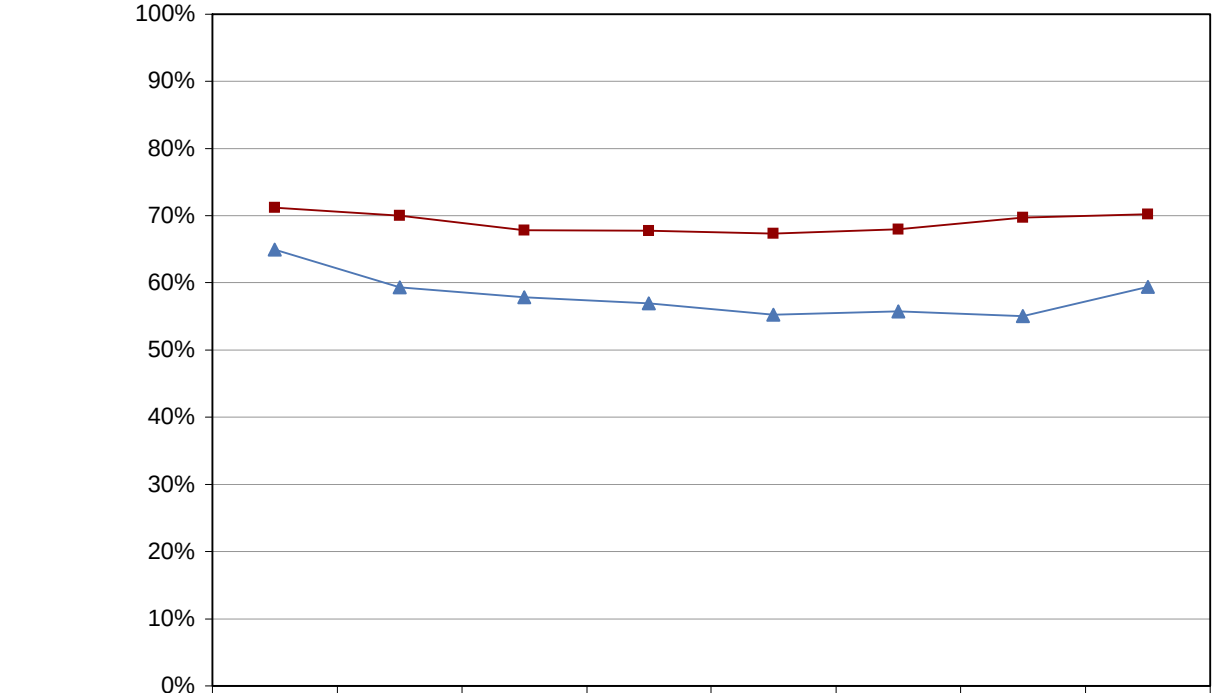
One of the complicating factors for Florida is that the state has an exit exam. There is a high dropout rate in the tenth grade, the first grade in which students are old enough to drop out, due to the test. If a rate for graduation based on students who passed the tenth grade is used, Florida ranks higher using its own measure because it weeds out low-achieving students. The Florida Department of Education uses a measure that does not follow cohorts from 9th grade (http://www.flgov.com/release/10352). They report an increase from 60.2% graduating in 1998-99 to 75.4% in 2007-2008, a 15.2 percentage point gain with a 4.4 percentage point gain occurring between 2005-2006 and 2007-2008 (from 71.0% to 75.4%). Their reporting method

uses a different base population which does not consider the effect of these exams on delays and dropout.

Since Mortensen uses the gross number of students who started 9th grade to calculate graduation rates, any decrease in graduates would be counted in the year they should have graduated from high school. Since an aim of the paper is to build an understanding of Bright Futures in the context of state policy, it is important to consider dropout for students using ninth grade cohorts precisely because Florida's exams can influence dropout. Therefore, Mortensen's measure was used in analyses.

While the introduction of merit grants may have contributed to the decline in graduation rates after 2000 given national research that demonstrates the link (St. John, 2006), other policy changes in Florida could explain the higher than average rate of decline between 1992 and 2000. Therefore, readers should be cautious about assuming a causal link between funding for merit grants and the decline in high school graduation rates.

Figure 1 Trend in High School Graduation Rates



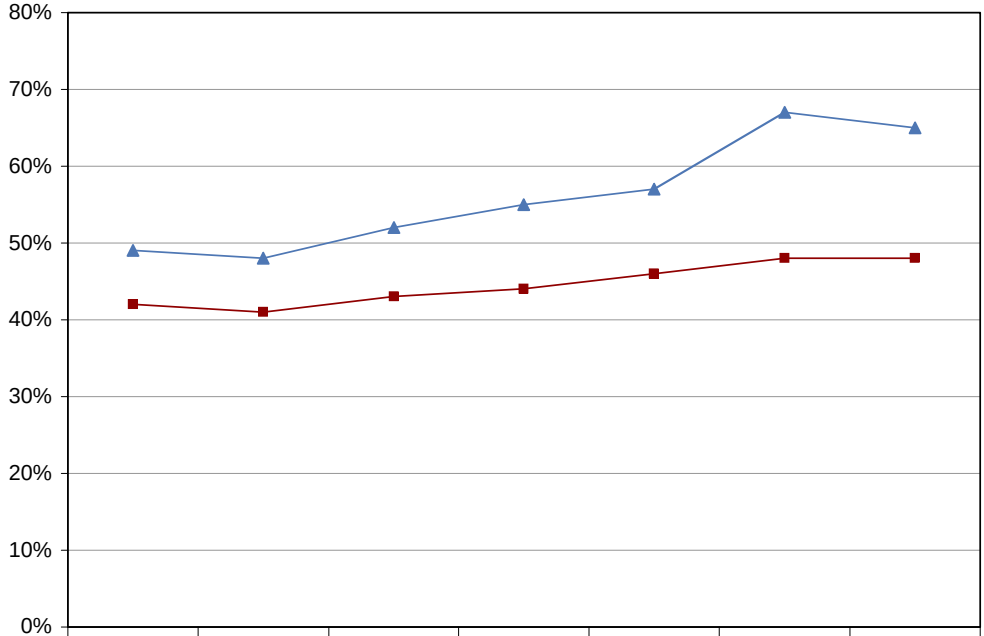
	1992	1994	1996	1998	2000	2002	2004	2006
Florida	0.6495396	0.5932235	0.5780709	0.5695271	0.5524532	0.5573886	0.550269	0.593532
United States	0.7120707	0.6997267	0.6781693	0.6775966	0.6733368	0.6798408	0.696973	0.7020578

Data from Postsecondary Education Opportunity Prepared by the Promoting Equity in Higher Education Project, NCID at the University of Michigan

Achievement: Since high school grades are a subjective intermediate outcome that can be positively influenced by the promise of financial rewards,[7] it is important to consider trends in the percentage of students taking college entrance exams and their scores on these tests. Trends in SAT participation in Florida (Figure 2) indicate an increase in the percentage of high school seniors taking the test between 1998 and 2004 although the percentage of students taking the exam leveled off between 2004 and 2006.

Since the Bright Futures program requires the SAT, the increase in the number of students taking the exam probably was an artifact of the requirement. Since the rate of participation increased faster in Florida than it did nationally, it is possible that the growing gap in scores was related to the increase in participation.

Figure 2 Percent of Florida Students Taking the SAT



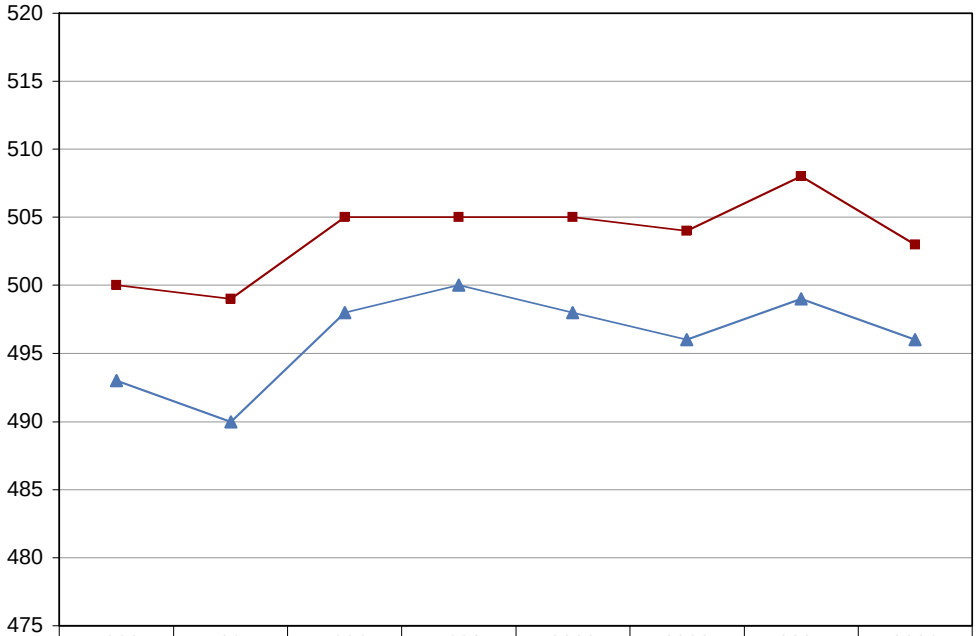
	1994	1996	1998	2000	2002	2004	2006
Florida	0.49	0.48	0.52	0.55	0.57	0.67	0.65
United States	0.42	0.41	0.43	0.44	0.46	0.48	0.48

Data from The College Board Prepared by the Promoting Equity in Higher Education Project, NCID at the University of Michigan

[7] At the margins, teachers might be persuaded by their inherent care for students to adjust grades for students who might be only slightly below the threshold for a Bright Futures award. In addition, some college preparatory high schools could informally adapt grading policies to increase the number of students who qualify.

These trends in Florida are consistent with the nation's pattern of an increased percentage of students taking the SAT. However, the scores of Florida students on SAT verbal (Figure 3) and math (Figure 4) tests declined after 1998. The average verbal score recovered in 2004, but remained below the national average. In contrast, math scores in Florida remained flat after 1998, although they improved nationally. According to this indicator, Florida lagged behind in the quality of academic preparation. The gap in scores for Florida compared to the U.S. after implementation of Bright Futures should be a reason for concern in Florida.

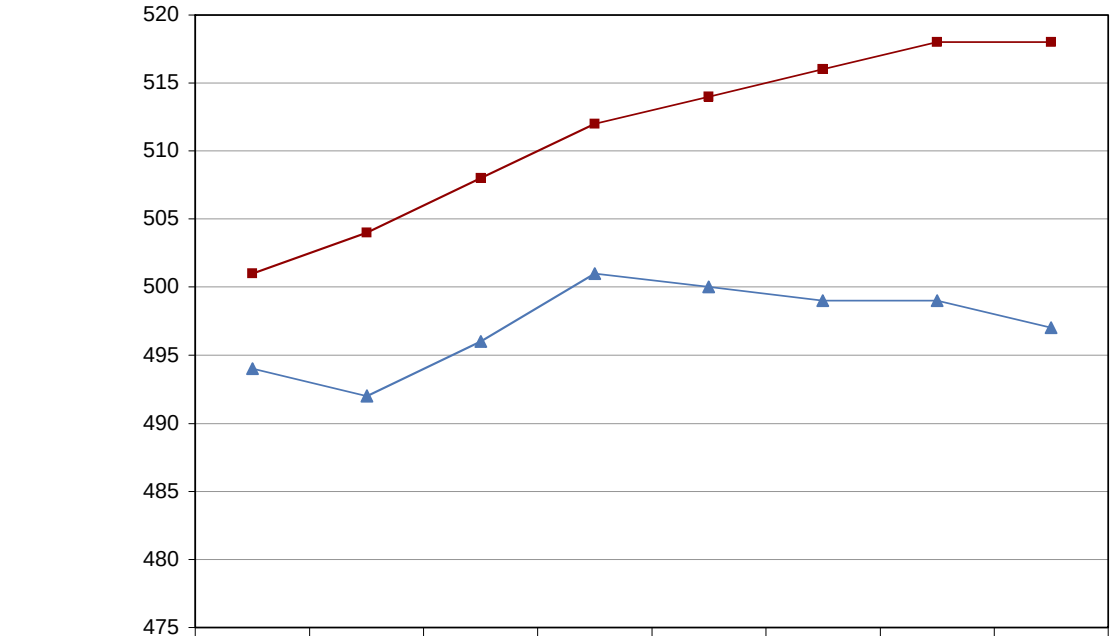
Figure 3 Average SAT Verbal Score in Florida



	1992	1994	1996	1998	2000	2002	2004	2006
Florida	493	490	498	500	498	496	499	496
United States	500	499	505	505	505	504	508	503

Data from The College Board Prepared by the Promoting Equity in Higher Education Project, NCID at the University of Michigan

Figure 4 Average SAT Math Score in Florida



	1992	1994	1996	1998	2000	2002	2004	2006
Florida	494	492	496	501	500	499	499	497
United States	501	504	508	512	514	516	518	518

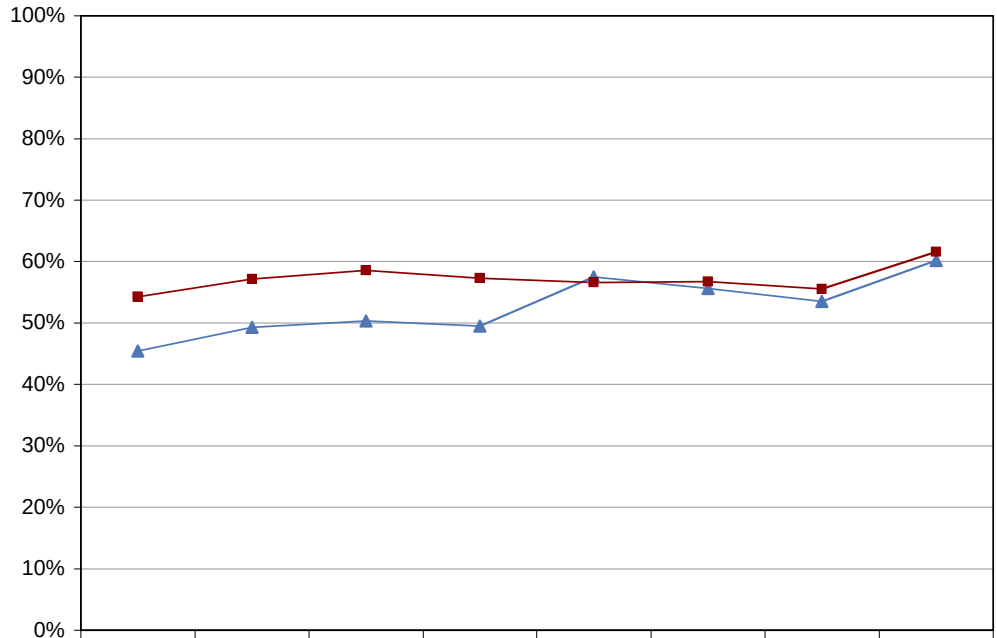
Data from The College Board Prepared by the Promoting Equity in Higher Education Project, NCID at the University of Michigan

College Continuation Rates

Tom Mortensen of Postsecondary Education Opportunity has developed the best generally available indicator for college continuation rates in states: the number of first-time freshmen in the state divided by the number of high school graduates the prior spring. Trends in college continuation for Florida are compared to the national rate in Figure 5. Similar to the national college continuation rate, Florida's rate climbed between 1992 and 2000 and declined after 2000. From this trend, there is no reason to expect that the Bright Futures program contributed to an improvement in college continuation rates. The continuation rate includes students from Florida who enrolled out of state, so we cannot make judgments about the brain drain from this data.

The overall continuation rate improved in Florida after 1998, when the gap between the state's rate and the national rate was virtually eliminated. There was a gain in enrollment rates between 1999 and 2000, counter to the national trend, which began a slight decline. It is possible that the Bright Futures program contributed to this jump. In addition, it is evident that the continuation rate was slightly higher in 2000, 2002, and 2004 than it had been between 1992 and 1998. However, the fact that both high school graduation and college continuation rates declined in Florida after 2000 is problematic.

Figure 5 Trends in College Continuation Rate for the State of Florida (Ratio of First-time Freshman Enrollment to the Number of High School Graduates the Prior Year)



	1992	1994	1996	1998	2000	2002	2004	2006
Florida	0.454028	0.4924989	0.5033676	0.4946681	0.5751836	0.5556279	0.5345863	0.6016039
United States	0.5428582	0.5712931	0.5857304	0.5725188	0.5654537	0.5673764	0.5551273	0.6156686

Data from Postsecondary Education Opportunity Prepared by the Promoting Equity in Higher Education Project, NCID at the University of Michigan

Did College Preparation and Enrollment Improve?

Educational outcomes since implementation of Florida's Bright Futures program in 1997 do not show that the merit-based scholarship program has significantly improved preparation for college.

- The high school graduation rate in Florida continued to decline after 1997 and has lagged behind the national rate, although it did show improvement in 2006.
- Florida fell behind the national average in the test scores of students who took the SAT, especially in math.
- The trends in college enrollment rates indicate an improvement in college going among Florida high school graduates, elevating the state rate to the national average. It is likely that Bright Futures contributed to improved college continuation rates in Florida.

The gains in college enrollment rates are partially mitigated by declines in high school graduation rates. However, the percentage of the cohort going on to college did improve. Therefore, there was an overall improvement in college enrollment by Florida's high school students after implementation of the Bright Futures program.

Representation by Race/Ethnicity

Racial/ethnic representation in higher education in the state of Florida is appropriately interpreted within the context of the improved rate of college continuation between 1998 and 2000, when the Bright Futures program was implemented. To examine the distribution of enrollment, we developed ratios of representation as measured by student FTE by race/ethnicity (i.e., the number of FTE students of a particular race/ethnicity divided by the number of FTE for all students) over the percentage of that race/ethnicity in the population (i.e., the number of people of a particular race/ethnicity divided by the total number of people in the population as a whole).

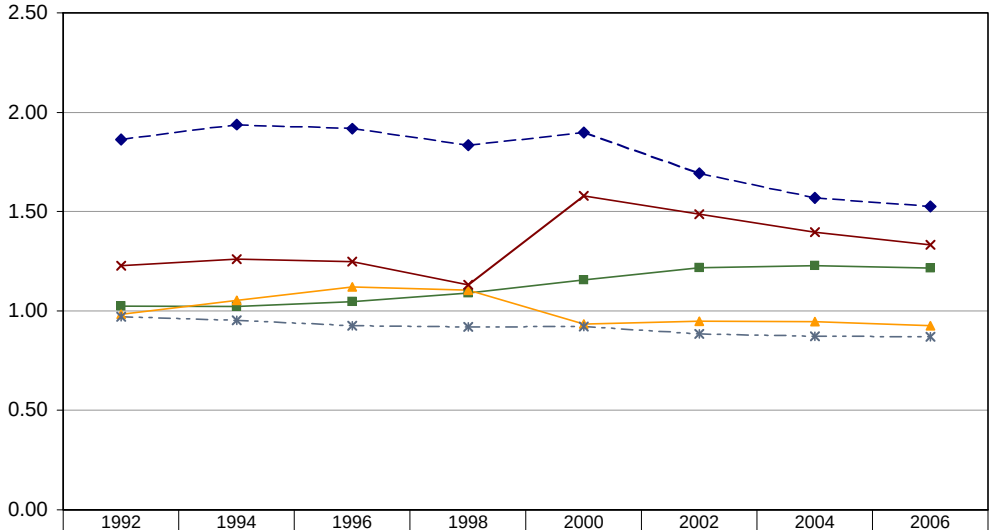
Using FTE as a measure of enrollment enables us to include both first-time and continuing students of all ages. Since this measure includes older students, including enrollment by graduate and part-time students, it should not be as sensitive to the effects of policy as studies of first-time enrollment. However, this measure does not provide an indicator of cohort persistence rates, a topic of interest in Florida with respect to Bright Futures (OPPAGA Program Review, 2004). Nevertheless, it is the best measure of diverse representation currently available.

There was not a substantial change in the percentage of high school students going on to college in Florida after 1998. There was, however, a decline in high school graduation and a slight improvement in college-going rates, indicating an overall flat rate of change. However, there were changes in the ethnic composition of college enrollment (see Figure 6). Latino/a and Asian representation in higher education in Florida declined after 1998. In contrast, the percentage of Native Americans enrolled improved substantially while the percentage of African Americans showed a steady pattern of improvement, with no alteration in the trend line when the Bright Futures program was implemented.[8] The percentage of Whites remained relatively flat, but it was the lowest of the five groups. With the large number of white retirees in Florida, this ratio is artificially depressed for Whites because a large portion of the white population is over college age. From these trends alone, it is possible to conclude that the representation of Asian Americans and Latinos/as declined as a consequence of Bright Futures and that the percentage of Native Americans improved. Before reaching such a conclusion, however, it is important to consider disparities in racial/ethnic representation within different types of Florida colleges and universities and patterns of change in representation for each racial/ethnic group across different types of institutions.

[8] In 2000, the U.S. Census Bureau changed the way race/ethnicity was reported. This change may have some impact on the representation rates and may partially explain changes in the rates between 1998 and 2000.

Figure 6

Racial/Ethnic Representation in Florida Postsecondary Institutions as a Proportion of the State Population



	1992	1994	1996	1998	2000	2002	2004	2006
Asian	1.862398	1.938310	1.916802	1.833044	1.895837	1.692253	1.568972	1.524783
Black	1.023265	1.021360	1.047621	1.090859	1.155675	1.216190	1.227387	1.216080
Latina/o	0.983031	1.052382	1.120874	1.103694	0.933903	0.948352	0.945481	0.925779
Native American	1.228443	1.260176	1.247967	1.130969	1.578436	1.486076	1.395716	1.332483
White	0.971441	0.951546	0.925063	0.918793	0.921601	0.885159	0.872820	0.869695

Data from NCES Integrated Postsecondary Education Data System and U.S. Census Bureau

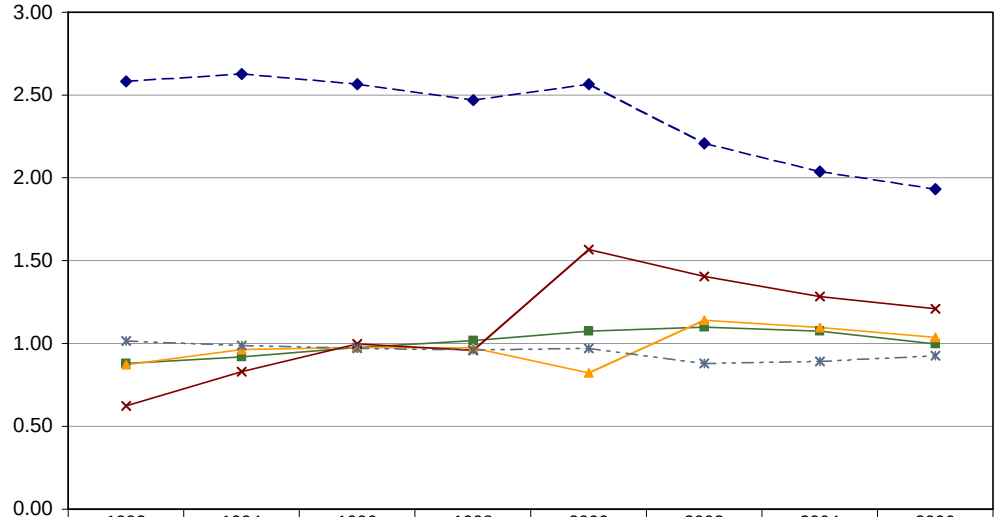
Racial Representation in Different Types of Florida Colleges and Universities

The patterns of racial representation differed by type of college (public four-year, public two-year, private four-year and private two-year), examined separately below.

Public Four-Year Colleges: The trends in racial representation in public four-year colleges (Figure 7) differ from the overall pattern. In particular, Latinos/as were better represented in public four-year colleges in 2004 than they had been in 1992 and 1998. However, this shift does not parallel implementation of Bright Futures. The representation of Latinos/as in public four-year colleges actually declined in 2000, the first observation point after implementation, but improved after 2000. The explanation for the shift appears to be related to other factors (see the discussion of admission policies below). The representation of Asians remained more than double their percentage of the population, but dropped after 2000. The percentage of Whites in public four-year colleges declined modestly after 2000, while the representation of Native Americans improved substantially. There was a steady pattern of improvement in the representation of African Americans between 1994 and 2004. However, between 2004 and 2006 the gap narrowed for African Americans compared to Whites.

Figure 7

Racial/Ethnic Representation in Florida Public Four-Year Postsecondary Institutions as a Proportion of the State Population



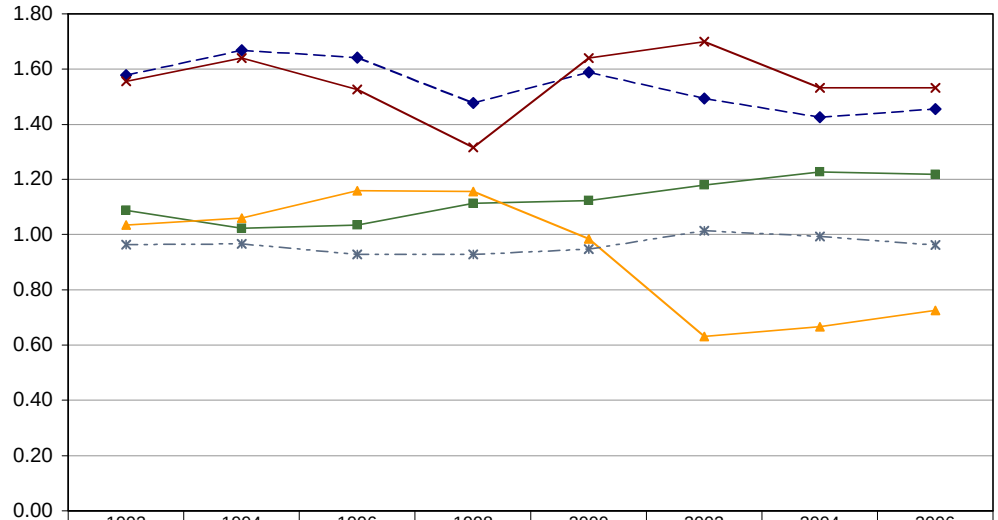
	1992	1994	1996	1998	2000	2002	2004	2006
Asian	2.582727	2.627469	2.566507	2.471549	2.567600	2.205721	2.037771	1.932222
Black	0.878934	0.919269	0.975101	1.017858	1.073522	1.098525	1.074844	0.996935
Latina/o	0.870920	0.962027	0.975090	0.973106	0.822985	1.139783	1.096082	1.036925
Native American	0.622982	0.831025	0.997786	0.957010	1.567242	1.403678	1.283239	1.210131
White	1.014172	0.986465	0.969489	0.959410	0.970325	0.880358	0.892439	0.925651

Data from NCES Integrated Postsecondary Education Data System and U.S. Census Bureau

Public Two-Year Colleges: Asian Americans and Native Americans had consistently higher overall rates of representation in public two-year colleges than other groups during the entire period, but both groups showed a one-year dip in 1998 (Figure 8). The representation of African Americans in public two-year colleges improved steadily after 1994, and the rate of change did not seem altered by the implementation of Bright Futures. The representation of Whites increased slightly after 2000. When representation trends for Latinos/as and Whites are examined in both public four-year and two-year colleges (Figures 8 and 9), it appears there was a shift of Latinos/as from two-year to four-year colleges after 2000, along with a shift of Whites from four-year to two-year. These patterns are more clearly evident in the analysis of trends in group-specific enrollment below.

Figure 8

Racial/Ethnic Representation in Florida Public Two-Year Postsecondary Institutions as a Proportion of the State Population



	1992	1994	1996	1998	2000	2002	2004	2006
Asian	1.578161	1.668748	1.641863	1.478162	1.588230	1.494670	1.425428	1.455266
Black	1.087436	1.022130	1.035169	1.113102	1.122472	1.178802	1.226715	1.217322
Latina/o	1.035119	1.059520	1.158961	1.155213	0.983915	0.631053	0.667231	0.725072
Native American	1.556351	1.641056	1.526192	1.315285	1.640242	1.699253	1.532350	1.531819
White	0.963330	0.967164	0.927987	0.927851	0.947213	1.013954	0.992556	0.962787

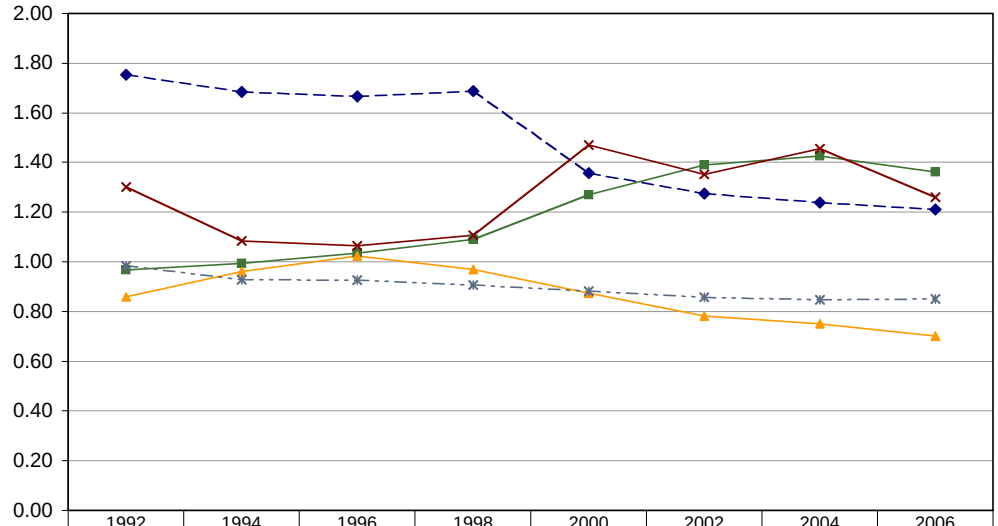
Data from NCES Integrated Postsecondary Education Data System and U.S. Census Bureau

Private, Non-Profit Colleges and Universities: Private non-profit institutions in Florida, like several other states, have substantial out-of-state enrollment. The University of Miami, for example, has a strong national appeal. However, since resident Floridians who enroll in private colleges can use Bright Futures awards, enrollment representation might be influenced by program implementation.

In private colleges, there were substantial shifts in patterns of representation after 1998 when Bright Futures was implemented (Figure 9). There were declines in the representation of Asian Americans and Latinos and increases in the representation of African Americans and Native Americans. The representation of Whites declined between 1992 and 2004, but there was no alteration in the slope of the decline in 1998.

Figure 9

Racial/Ethnic Representation in Florida Private Non-Profit Postsecondary Institutions as a Proportion of the State Population

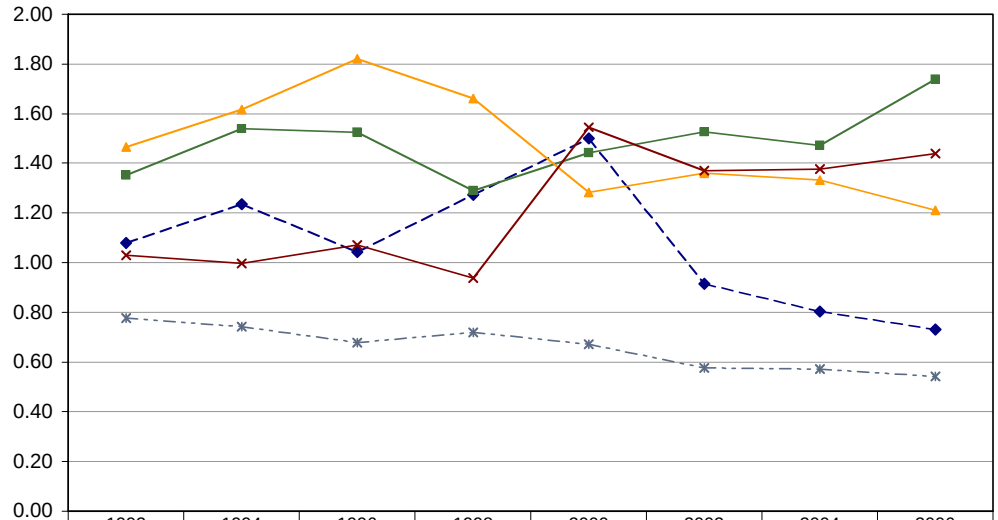


	1992	1994	1996	1998	2000	2002	2004	2006
Asian	1.753509	1.685335	1.666349	1.687652	1.356637	1.273758	1.237459	1.210536
Black	0.966538	0.993626	1.035070	1.089808	1.269517	1.388724	1.425203	1.360997
Latina/o	0.859313	0.960292	1.023258	0.968175	0.874266	0.781323	0.750374	0.701042
Native American	1.300912	1.083077	1.064063	1.106833	1.469127	1.350922	1.454147	1.259762
White	0.983548	0.926999	0.926861	0.906046	0.882191	0.857323	0.847201	0.850959

Data from NCES Integrated Postsecondary Education Data System and U.S. Census Bureau

Racial Representation in Private For-Profit Institutions: The for-profit sector of higher education is comprised both of proprietary technical schools, from cosmetology schools to technical programs, and some four-year programs (e.g., University of Phoenix). Whether students can receive awards for these programs is dependent on state policy. After 1998, the percentages of Whites, Latinos, and Asians declined in for-profit colleges while the percentages of Native Americans and African Americans increased (Figure 10). It is unclear how these changes relate to Bright Futures given the intermediate questions about eligibility for proprietary schools.

Figure 10



	1992	1994	1996	1998	2000	2002	2004	2006
Asian	1.078269	1.235471	1.041995	1.272772	1.498888	0.914388	0.802440	0.730736
Black	1.351657	1.538646	1.523994	1.289419	1.441375	1.525052	1.471908	1.738479
Latina/o	1.464222	1.617745	1.821732	1.662534	1.282186	1.359590	1.332489	1.209487
Native American	1.028795	0.996963	1.070438	0.936954	1.545380	1.369693	1.375499	1.439119
White	0.776540	0.742736	0.677869	0.719010	0.672035	0.577100	0.571910	0.542130

Data from NCES Integrated Postsecondary Education Data System and U.S. Census Bureau

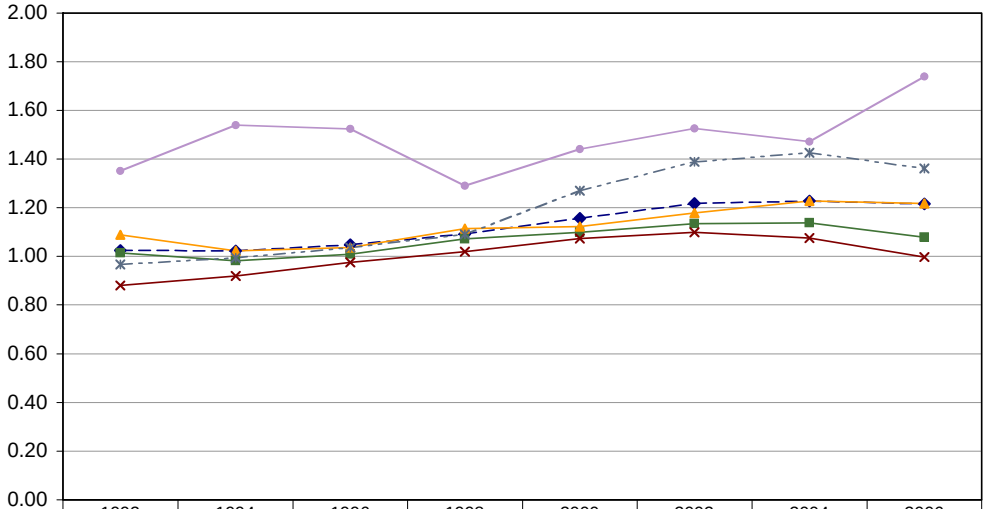
Institution Types by Racial/Ethnic Group

Given the substantial changes in representation after 1998, it is appropriate to consider how the representation of each group changed across different types of institutions. The representation of African Americans, Asian Americans, Latinos/as, Native Americans and Whites are considered below.

African Americans: By 2006, African Americans had a ratio greater than, or very close to, 1.0 for every type of institution, indicating progress in representation in higher education for African Americans (Figure 11). However, within the public sector of Florida higher education African Americans have had consistently higher representation in two-year colleges than in four-year institutions. In fact, since 2002 the gap between attendance at two-year and four-year institutions has grown for these students.

Figure 11

Black Representation in Florida Postsecondary Institutions as a Proportion of the State Population

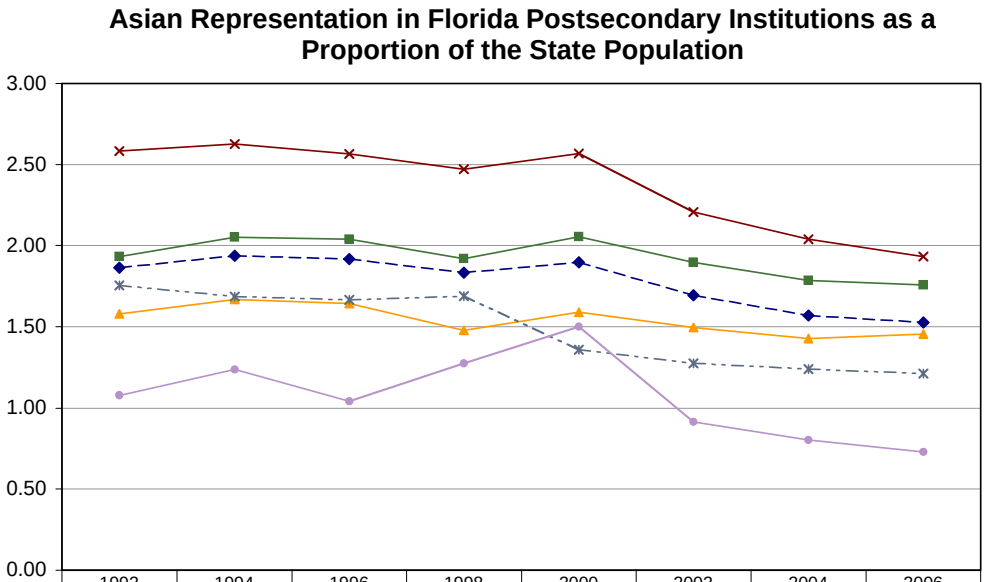


	1992	1994	1996	1998	2000	2002	2004	2006
All	1.023265	1.021360	1.047621	1.090859	1.155675	1.216190	1.227387	1.216080
Public	1.013806	0.981172	1.009305	1.070709	1.099121	1.133298	1.137568	1.077959
Public 2-Year	1.087436	1.022130	1.035169	1.113102	1.122472	1.178802	1.226715	1.217322
Public 4-Year	0.878934	0.919269	0.975101	1.017858	1.073522	1.098525	1.074844	0.996935
Private Non-Profit	0.966538	0.993626	1.035070	1.089808	1.269517	1.388724	1.425203	1.360997
Private For-Profit	1.351657	1.538646	1.523994	1.289419	1.441375	1.525052	1.471908	1.738479

Data from NCES Integrated Postsecondary Education Data System and U.S. Census Bureau

Asian Americans: Their representation in higher education was substantially higher than their percentage of the state population throughout the period, but their overall rate of representation (the dark blue line) declined after 2000 (Figure 12). In 2004, Asian Americans were still enrolled in public four-year colleges at almost double their rate in the population, but there had been a decline from a ratio of 2.57 in 2000 to 1.93 in 2006. Asian representation in all types of institutions except public two-year colleges declined after 2000.

Figure 12



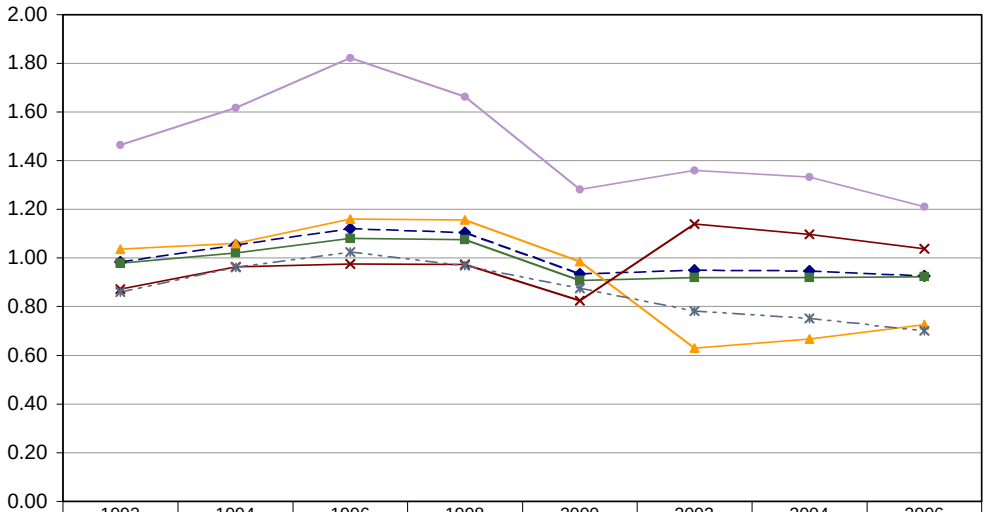
	1992	1994	1996	1998	2000	2002	2004	2006
All	1.862398	1.938310	1.916802	1.833044	1.895837	1.692253	1.568972	1.524783
Public	1.932911	2.050501	2.039994	1.920317	2.055423	1.897725	1.784867	1.756873
Public 2-Year	1.578161	1.668748	1.641863	1.478162	1.588230	1.494670	1.425428	1.455266
Public 4-Year	2.582727	2.627469	2.566507	2.471549	2.567600	2.205721	2.037771	1.932222
Private Non-Profit	1.753509	1.685335	1.666349	1.687652	1.356637	1.273758	1.237459	1.210536
Private For-Profit	1.078269	1.235471	1.041995	1.272772	1.498888	0.914388	0.802440	0.730736

Data from NCES Integrated Postsecondary Education Data System and U.S. Census Bureau

Latinos/as: For Latinos/as, there was a decline in representation between 1998 and 2000 (Figure 13). However, there was a dramatic redistribution of enrollment after 2000, with Latinos shifting from being underrepresented in public four-year colleges to being represented at a rate higher than their percentage of the population. In contrast, the representation of Latinos in public two-year colleges dropped, illustrating a redistribution of students.

Figure 13

Latina/o Representation in Florida Postsecondary Institutions as a Proportion of the State Population

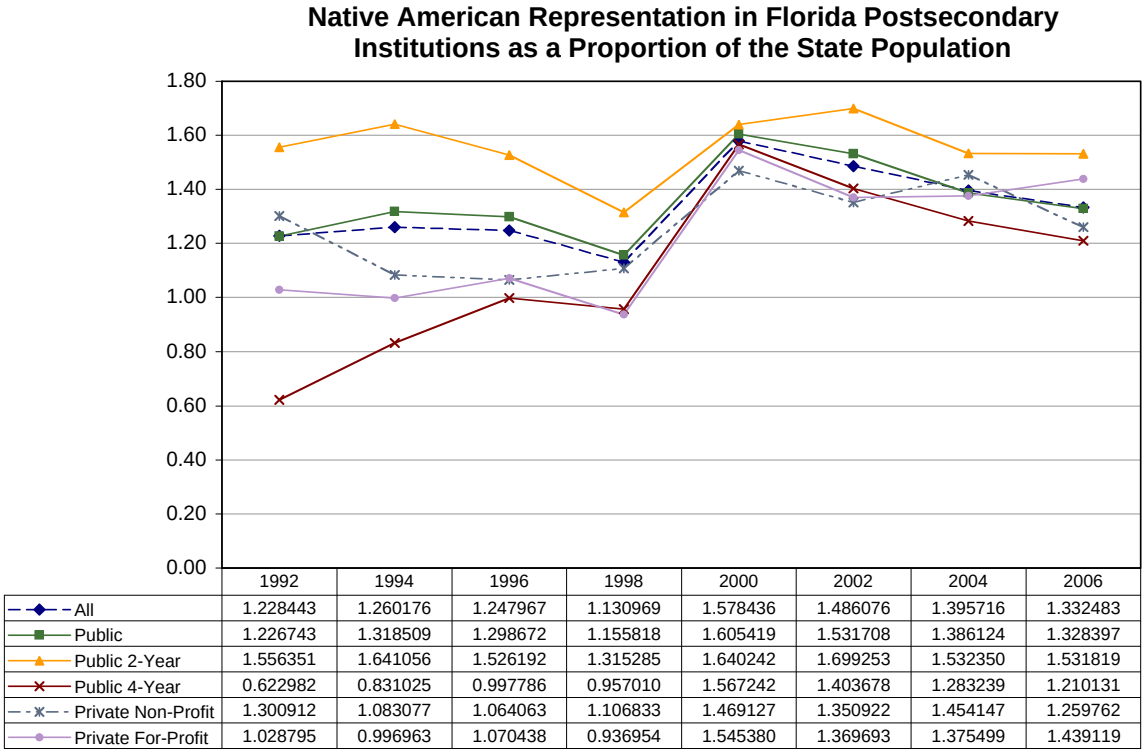


	1992	1994	1996	1998	2000	2002	2004	2006
All	0.983031	1.052382	1.120874	1.103694	0.933903	0.948352	0.945481	0.925779
Public	0.977134	1.020699	1.079790	1.074158	0.907146	0.919424	0.918963	0.922275
Public 2-Year	1.035119	1.059520	1.158961	1.155213	0.983915	0.631053	0.667231	0.725072
Public 4-Year	0.870920	0.962027	0.975090	0.973106	0.822985	1.139783	1.096082	1.036925
Private Non-Profit	0.859313	0.960292	1.023258	0.968175	0.874266	0.781323	0.750374	0.701042
Private For-Profit	1.464222	1.617745	1.821732	1.662534	1.282186	1.359590	1.332489	1.209487

Data from NCES Integrated Postsecondary Education Data System and U.S. Census Bureau

Native Americans: Native Americans were represented in higher education at a rate exceeding their portion of the population during the entire period (Figure 14). Native Americans were most likely to be enrolled in public two-year colleges, although there was a dip in their representation in 1998, the first year after implementation of Bright Futures. There was improvement in the representation of Native Americans in public four-year colleges during the 14 years, with a rise from about .6 in 1992 (highly underrepresented) to a high of 1.6 in 2000, with a leap of .8 between 1998 and 2000. [9]

Figure 14



	1992	1994	1996	1998	2000	2002	2004	2006
All	1.228443	1.260176	1.247967	1.130969	1.578436	1.486076	1.395716	1.332483
Public	1.226743	1.318509	1.298672	1.155818	1.605419	1.531708	1.386124	1.328397
Public 2-Year	1.556351	1.641056	1.526192	1.315285	1.640242	1.699253	1.532350	1.531819
Public 4-Year	0.622982	0.831025	0.997786	0.957010	1.567242	1.403678	1.283239	1.210131
Private Non-Profit	1.300912	1.083077	1.064063	1.106833	1.469127	1.350922	1.454147	1.259762
Private For-Profit	1.028795	0.996963	1.070438	0.936954	1.545380	1.369693	1.375499	1.439119

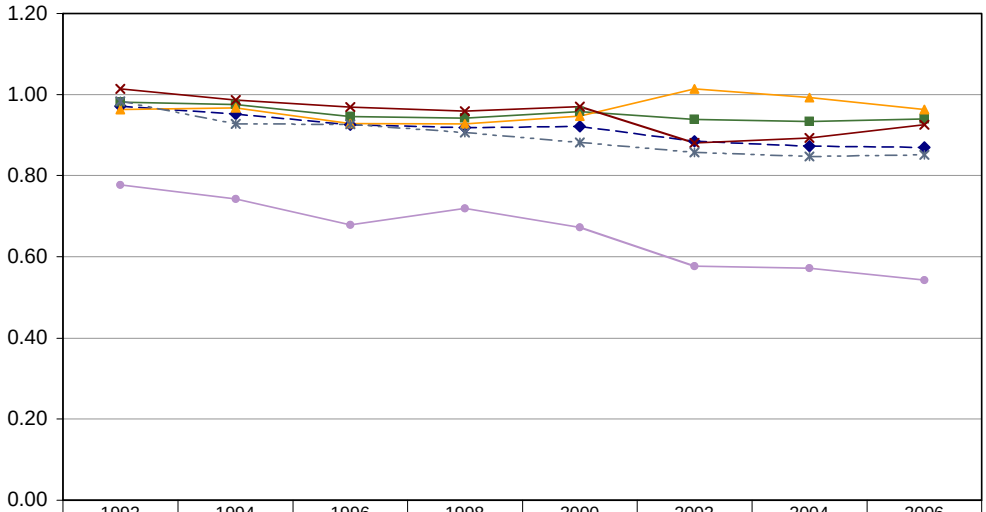
Data from NCES Integrated Postsecondary Education Data System and U.S. Census Bureau

[9] In 2000, the U.S. Census Bureau changed the way race/ethnicity was reported. This change may have some impact on the representation rates and partially explain changes in the rates between 1998 and 2000.

Whites: Whites have been represented in public colleges at rates slightly below their percentage of the population throughout the period, and their rate of representation has declined slightly during the 14 years (Figure 15). Since a substantial portion of Florida's population consists of white retirees from other states, the ratio is not problematic from a social justice perspective. It is notable that there was a redistribution of white enrollment after 2000, with an increase in representation in public two-year colleges and a decline in public four-year colleges.

Figure 15

White Representation in Florida Postsecondary Institutions as a Proportion of the State Population



	1992	1994	1996	1998	2000	2002	2004	2006
All	0.971441	0.951546	0.925063	0.918793	0.921601	0.885159	0.872820	0.869695
Public	0.981284	0.974850	0.945857	0.941898	0.958238	0.938226	0.933788	0.939304
Public 2-Year	0.963330	0.967164	0.927987	0.927851	0.947213	1.013954	0.992556	0.962787
Public 4-Year	1.014172	0.986465	0.969489	0.959410	0.970325	0.880358	0.892439	0.925651
Private Non-Profit	0.983548	0.926999	0.926861	0.906046	0.882191	0.857323	0.847201	0.850959
Private For-Profit	0.776540	0.742736	0.677869	0.719010	0.672035	0.577100	0.571910	0.542130

Data from NCES Integrated Postsecondary Education Data System and U.S. Census Bureau

Policies Related to Outcomes

There is a substantial body of research in higher education that links public policies to educational outcomes. In this section, we examine trends in education policy in Florida, including but not limited to the Bright Futures program, relative to the educational outcome and racial/ethnic representation in higher education. Specifically, trends and changes in the following policies are considered:

- Trends in weighted average public tuition charges,[10] which can deter enrollment by prepared low-income students who do not meet the eligibility requirements for Bright Futures and there is insufficient need-based grant aid.

- Trends in state funding per FTE for non-need-based grants, including Bright Futures.

- Trends in state funding for need-based grants per FTE, a form of state support that can mitigate the negative effects of tuition on enrollment of prepared low-income students who do not qualify for Bright Futures.

- Trends in the ratio of state funding for need-based grants per FTE divided by the weighted average public tuition charge, an indicator of affordability for low-income students.

- Trends in high school graduation requirements.

- Changes in state college admissions policies.

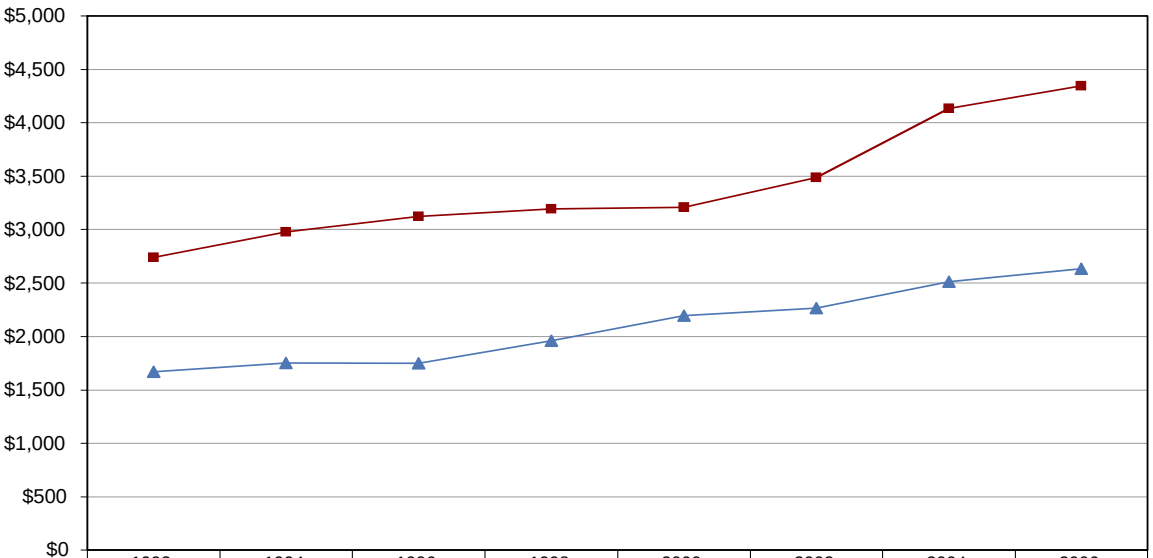
[10] The weighted average is adjusted for the distribution of FTE students across different types of institutions and the charge for full time students by campus.

Tuition

The weighted average public tuition charge in Florida remained relatively flat from 1992 to 1996, adjusted for inflation (Figure 16). However, tuition charges increased faster than inflation in Florida after 1996. Public tuition charge increases can decrease enrollment by low-income students if there is not adequate need-based grant aid.

Figure 16

Average Amount of Undergraduate In-State Tuition and Fees for the Florida Public Higher Education System (In 2006 Dollars)



	1992	1994	1996	1998	2000	2002	2004	2006
Florida	$1,669.15	$1,753.02	$1,748.94	$1,960.00	$2,196.66	$2,265.84	$2,508.95	$2,633.03
United States	$2,736.09	$2,975.64	$3,122.24	$3,192.42	$3,206.90	$3,485.00	$4,132.65	$4,346.48

Data from NCES Integrated Postsecondary Education Data System Prepared by the Promoting Equity in Higher Education Project, NCID at the University of Michigan

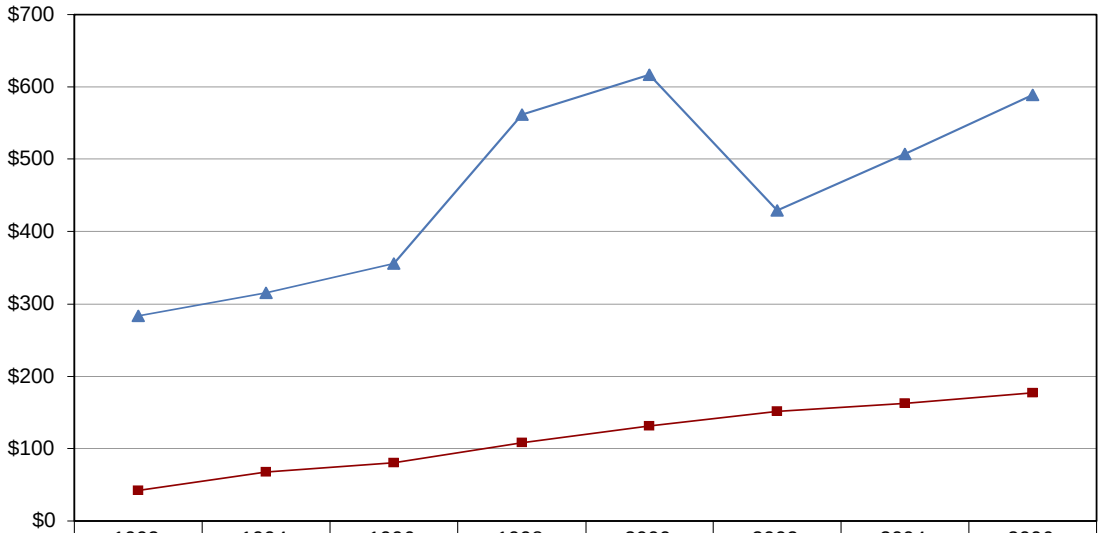
Public tuition charges are positively associated with college enrollment rates, controlling for the effects of state tax rates (St. John, 2006). In Florida, the rise in tuition rates corresponds with an increased enrollment rate after 1998. At the very least, allowing tuition to rise did not decrease enrollment. However, the rise in tuition could have contributed to inequity in enrollment based on income; it is not possible to examine this relationship with available data. In addition, the rise in college enrollment did not yield a higher continuation rate in Florida because of the decline in high school graduation rates.

Funding for Non-Need-Based (Merit) Grants

Florida's Bright Futures program has been the primary concern of this paper. However, as noted earlier this program is related to other implemented programs. As a new program, Florida Bright Futures tightened the link between student aid and state tuition charges and provided a new funding source, the state lottery. Examining trends in funding for the non-need (mostly merit) grants per FTE in Florida (Figure 17), it is evident that funding per FTE did increase substantially between 1996 and 2000. In addition, there has been a decline in FTE funding for non-need grants since 2000. State funding for grants was only moderately higher in 2002 than in 1996. The reason for the dip in funding per FTE is not clear. However, FTE did increase (by 27% between 2000 and 2004), so more enrollment of older students may have driven down this ratio.

Figure 17

Florida State Non-Need-Based Undergraduate Grants per FTE (In 2006 Dollars)



	1992	1994	1996	1998	2000	2002	2004	2006
Florida	$283.43	$315.63	$355.69	$561.85	$616.48	$428.94	$507.40	$588.72
United States	$42.05	$67.71	$80.33	$108.27	$131.49	$151.54	$162.95	$177.17

Data from National Association of State Student Grant & Aid Programs Prepared by the Promoting Equity in Higher Education Project, NCID at the University of Michigan

Public funding for non-need grants is associated with improved enrollment rates (Dynarski, 2002; St. John, 2006) but with decreased high school graduation rates (St. John, 2006). The trends in Florida provide evidence of both these patterns.

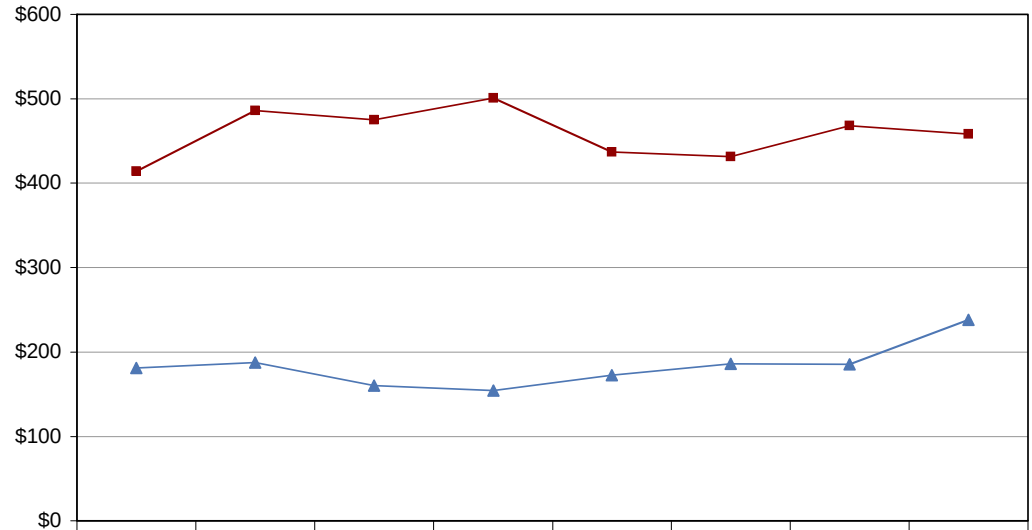
In addition, there was a decline in SAT math test scores of Florida students, while math scores increased nationally, introducing another possible linkage. It may be that some Florida students avoided taking more advanced courses in high school as a means of keeping their grades high enough to qualify for a Bright Futures Scholarship, which resulted in lower SAT scores.

Need-Based Grant Aid

Need-based student financial aid is linked to improvement in college enrollment rates, especially for low-income students (Heller, 1997; Leslie & Brinkman, 1988; St. John, 2006). State funding for need-based grant aid is extremely low in Florida, less than $200 per FTE between 1992 and 2004 (Figure 18), crossing this threshold for the first time in 2006. This trend is especially troubling given the rise in tuition. The consequences of this trend are appropriately considered in relation to tuition.

Figure 18

Florida State Need-Based Undergraduate Grants per FTE (In 2006 Dollars)



	1992	1994	1996	1998	2000	2002	2004	2006
Florida	$180.99	$187.77	$160.13	$154.53	$172.58	$185.96	$185.78	$238.23
United States	$414.11	$485.69	$475.03	$500.94	$436.88	$431.28	$467.81	$458.21

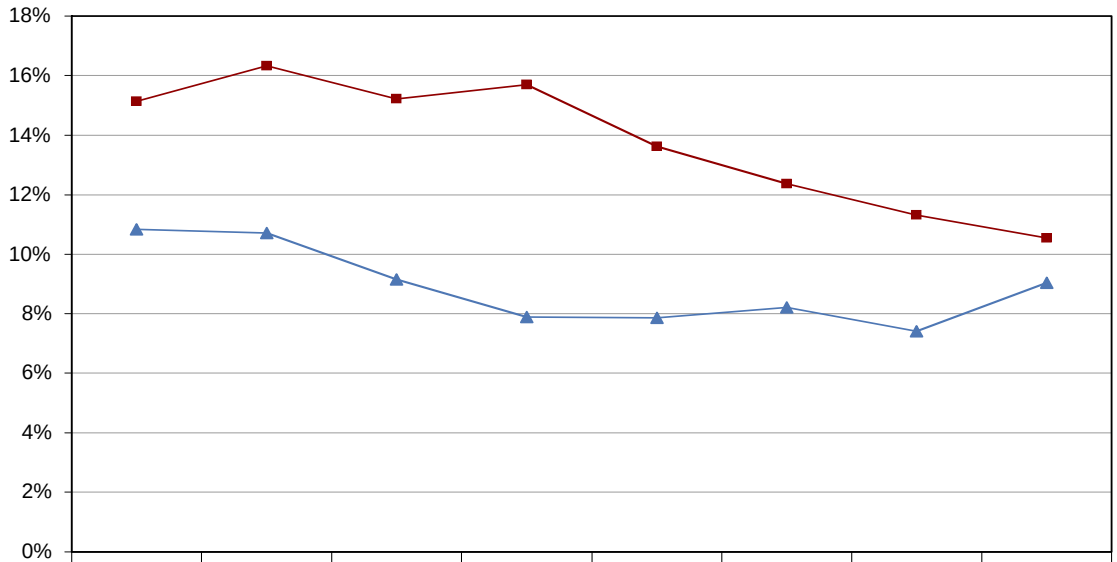
Data from National Association of State Student Grant & Aid Programs Prepared by the Promoting Equity in Higher Education Project, NCID at the University of Michigan

Ratio of Need-based Grants to Tuition

One of the best indicators of financial access for low-income students is the ratio of funding for need-based grants and public college tuition. In Florida this ratio dropped from about .11 in 1992 and 1994, a rate near the national average, to about .07 in 2004 (Figure 19). This ratio should be at about .25 to have an equalizing effect on enrollment opportunity for low and middle-income students. Theoretically, if need-based aid were funded at this ratio, states would be able to pay tuition for the lowest-income students, pay half the tuition for students at the lower-middle quartile and rely on federal aid or merit aid for middle-income students (St. John, 2006; St. John, Chung, et al., 2002). However, equalizing opportunity for college enrollment across income groups for equally prepared students is seldom a state priority. Rather, political arguments about preparation and brain drain have had an influence on the creation and funding of merit grant program (Cohen-Vogel & Ingle, 2007).

Figure 19

Florida Need-based Grants as a Percent of State Tuition



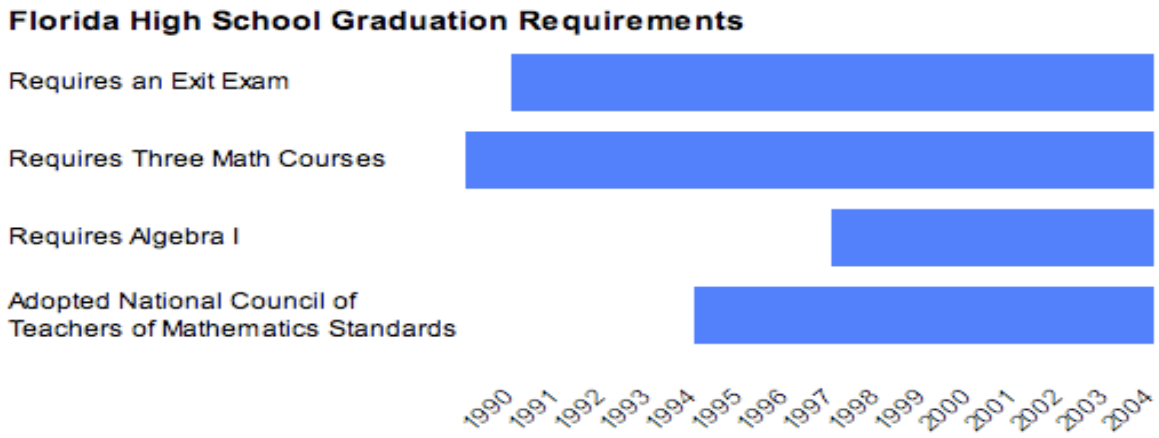
	1992	1994	1996	1998	2000	2002	2004	2006
Florida	10.84%	10.71%	9.16%	7.88%	7.86%	8.21%	7.40%	9.05%
United States	15.14%	16.32%	15.21%	15.69%	13.62%	12.38%	11.32%	10.54%

Data from NCES Integrated Postsecondary Education Data System and National Association of State Student Grant & Aid Programs Prepared by the Promoting Equity in Higher Education Project, NCID at the University of Michigan

High School Graduation Requirements

Florida has regular, accelerated, and special diploma options (Florida Department of Education, 2007). However, like all states there is variability in the extent to which high school diplomas are equally available to all students across high schools. Research that controls for state context using time series data indicates that raising state graduation requirements is positively associated with higher math achievement on SAT tests and lower high school graduation rates (St. John, 2006). The implementation dates for graduation requirements are presented below (Figure 20).

Figure 20
Florida's High School Graduation Requirements by Year Implemented



Three math courses have been required for graduation since 1990, and state exit exams have been required for graduation since 1991, both implemented well before the trends examined. Math standards were implemented in 1995. The requirement that students pass Algebra I to graduate was implemented in 1998. It is possible that stricter standards could constrain graduation rates, a pattern evident in Florida and nationally (St. John, 2006). However, the fact that SAT math scores have been lower than the national average is not consonant with national research, which typically finds a positive association between state test scores and increased math requirements.

College Admission

In 1999, by executive order, Governor Jeb Bush banned affirmative action in Florida and instead limited access to state universities to the top twenty percent of a high school's graduating class (Blair, 1999). The percentage enrollment plans in Texas and California were initially criticized by the U.S. Civil Rights Commission (Blair, 2000) and by the Harvard Civil Rights Project (Denniston, 2003). However, research on implementation of the Texas top percent program indicates it has worked relatively well (Chapa & Horn, 2007).

The implementation of a 20% plan in Florida corresponds with shifts in enrollment between four-year and two-year colleges for Latinos/as and Whites in 2000 which happened after implementation of Bright Futures. There may be other explanations for the shifts, but the 20% plan is the most plausible explanation within the set of policies examined in this study.

Links between Policies and Outcomes

It is not unusual for analysts and reporters to note a trend in relation to implementation of a specific policy. A better approach is to examine outcomes—intended and unintended—related to the policy in question in the context of other policies that can influence these outcomes. In addition, it is appropriate to consider these trends in relation to research that examines linkages between policies and outcomes.

In this white paper, we have been asked to examine the relationship between Bright Futures Scholarships and enrollment opportunities for low-income and minority students. More access was available to information on minority enrollment than to enrollment by low-income students. In addition to considering a variety of indicators related to the Bright Futures program, outcomes related to preparation for college (the stated intended outcome of Bright Futures), enrollment, and racial/ethnic representation were considered. We found ten policy outcomes that could be related to the implementation of the Bright Futures program (Table 1).

The most troubling changes were related to two of the stated intentions of the Bright Futures program: There was a decline in high school graduation rates after implementation and a decline in scores on the SAT, both internally and when compared to the nation as a whole. There is strong evidence, based on prior national research, that implementation of the Bright Futures program coupled with the increased funding for non-need grants was associated with both these outcomes. It is also possible that the implementation of the new requirement for Algebra I could have contributed to the decline in high school graduation rates.

Improving college enrollment was among the aims of early supporters of Bright Futures, and there was an increase in college enrollment rates after implementation (Dynarski, 2002; St. John, 2006). While some prior research examines only in-state enrollment as an artifact of merit aid (e.g., Dynarski, 2002), the college continuation rates for Florida examined in this study consider both in-state and out-of-state enrollment. While the decline in high school graduation rates may artificially inflate college continuation rates given that the continuation rate is indexed to high school graduation, the gains in enrollment are nevertheless an important indicator of the impact of the program.

The implementation of the Top 20% admission plan in 1999 corresponds with the increase in Latino/as enrollment public four-year colleges and the decline in enrollment by whites. However, this policy does not appear to have altered the slope of the enrollment trends for African Americans.

Table 1: Possible Linkages Between Polices and Educational Outcome in Florida

Change in Outcome	Related Policy Change
1. The high school graduation rate in Florida continued to decline after 1997 and has lagged behind the national rate.	• Algebra I requirement implemented in 1997. • Drop precedes implementation of Florida's Bright Futures.
2. Florida fell behind the national average in the test scores of students who took the SAT after 1998, especially in math.	• Higher funding for non-need grants in 1998 (Bright Futures).
3. College enrollment rates increased after 1998.	• Increased funding for non-need-grants in 1998.
4. Between 1992 and 2002 there was a steady pattern of increased representation of African Americans in public colleges, two-year and four-year.	• Improvements in high school graduation requirements could be related, especially improvement of high school curriculum in urban and rural schools.
5. After 2002 the participation of African Americans as a percent of the population flattened, and there was a slight redistribution from four-year to two-year colleges.	• Rises in tuition charges and decline in non-need grants provide the most feasible explanation for this pattern.
6. There was reduced representation of Latinos/as in public higher education after 1998, a pattern that persisted through 2006.	• Bright Futures program implemented in 1997 is a possible explanation of the decline. • Public tuition charges increased after 1996. • Increased funding for state non-need grants in 1998.
7. Redistribution of Latino/a enrollment from public two-year colleges to four-year colleges after 2000.	• Implementation of 20% plan probably explains the shift.
8. The rate of representation of Native Americans in public four-year colleges improved substantially between 2000 and 2004.	• Public tuition charges increased after 1998. • Implementation of new admissions plan could explain the shift. • Change in census racial categories.
9. The rate of representation of Native Americans in public four-year colleges dropped slightly after 2000, but remained above the rate before 1998 and above their percentage of the state's population.	• Public tuition charges increased after 1998. • Rising tuition and failure to increase need-based grants after 2000 could constrain opportunities in four-year colleges.
10. Redistribution of Whites from public four-year to public two-year colleges after 2000.	• Several years after implementation of Bright Futures • New admissions policy is probable explanation for the shift.

There was also a steady improvement in the representation of African American students in public colleges between 1992 and 2002, including four-year colleges. These trends preceded implementation of the Bright Futures program and were largely unaltered by implementation of the program. It is probable that implementation of stronger high school graduation requirements led to this improvement, a hypothesis for which there is some evidence from national studies (Daun-Barnett, 2008). Improving curriculum in urban and rural high schools can overcome some of the historic vestiges of segregated systems of education.

There was a decline in representation of Latino/a students in public higher education in Florida after implementation of the Bright Futures program. The new program, coupled with the rises in college costs and the decline in need-based grants relative to costs, could explain this drop.

There was a redistribution of enrollment between public four-year and two-year colleges after 2000. Latinos shifted enrollment from two-year to four-year colleges while Whites shifted enrollment from four-year to two-year colleges. These shifts appear related to changes in admissions policies related to implementation of the 20% plan. This policy assured admission to public four-year college to students in the top 20% of their high school class. The 20% admissions policy shifts enrollment in part because of the segregation of public high schools, a pattern also evident in Texas (Chapa & Horn, 2007).

Native Americans realized gains in representation in public higher education in the 2000s. These shifts could be explained by targeted student financial aid for teachers and medical professionals. There are also tribal scholarship programs.

Conclusions and Implications

The study clarifies that research on Florida's Bright Futures program has been reported as unduly positive. A correlation between the timing of Bright Futures and gains in preparation and college enrollment have been reported (e.g., Harkreader, Hughes Tozzi,, & Vanlandinghan, 2008). After this detailed review, it is evident that the relationship between Bright Futures and enrollment rates is in fact positive and indisputable. However, the relationship between Bright Futures and academic preparation is not as simple as has been portrayed in the research. There were other policies implemented including changes in graduation requirements that were associated with gains in verbal test scores on the SAT. Math scores, on the other hand, decreased, probably because some students exercised caution in taking advanced math courses because they did not want to lose the Bright Futures scholarship, which would have happened if their grades fell beneath a certain level. In addition, Florida's reporting of improvements in high school graduation rates is misleading because it does not consider drop out resulting from state exit exams. Clearly, more thoughtful and competent analysis of the effects of these policies was needed.

In 2008, higher education in Florida was hit by a budget crisis. In a state that depends on sales and property taxes, voters passed a reduction in property taxes reducing revenues by nearly one billion dollars (McDonald, 2008). The situation has deteriorated, with other universities "poaching" the outstanding faculty in the state system (Stripling, 2008). The budget problems have not gone unnoticed by critics of the Bright Futures program; it is increasingly difficult for universities to hold down tuition when state funding declines, but increasing tuition undermines funding for Bright Futures (Braun, 2008). The financial pressures heighten the need to reform educational programs to improve their effects.

Most recently, the strategy of increasing public college tuition by 15% per year has been endorsed by Governor Crist (Fineout, 2008). The proposal stipulates that 30% of the new revenue should be used for need-based grant aid. It also decouples Bright Futures from tuition charges. The timing is critical for a reconsideration of how Bright Futures will be organized and administered. In particular, it is important to make sure low-income students who meet the program's award criteria have sufficient aid to pay for college.

The primary finding of this review of trends and research is that:

> *the Florida Bright Futures program apparently has not improved high school preparation, which undermines one rationale for its continuation..*

Students can opt out of taking challenging courses in math and other subjects to keep their grades up and ensure scholarship eligibility, which has led to lower SAT math scores; completing calculus on average adds 50 points to a student's math score on the SAT compared to only taking precalculus (Musoba, 2004). This study also indicates positive effects of the Bright Futures program on college enrollment rates for high school graduates, but this is deceptive because there has been a concomitant decline in high school graduation rates.

There were two developments that indicate improved fairness in college enrollment. First, Florida's new admissions policy, the 20% plan, has resulted in enrollment redistributions that enable more Latino/a and Native American students who qualify and can afford to go to college increased opportunities to enroll and persist in four-year colleges. Second, there was a steady pattern of improvement in the representation of African Americans in public higher education from 1992 to 2002. It appears that efforts to increase high school graduation requirements provided access to higher quality high school courses for some students in urban and rural high schools.

The failure of Florida's Bright Futures Scholarship Program to achieve its intent of improved high school preparation is ironic, given the strong advocacy for the program on the part of students who receive the aid. However, students who avoid difficult courses in high school to get a scholarship or in college to retain a scholarship (Hu, 2008) are not icons of achievement. Instead, they exhibit the qualities of a group that seems to make every possible effort to retain their privileges. These issues merit further study. In addition, public officials should show more balance when making public claims about the program's success.

> The positive effects of the program on opportunities for qualified low- and middle-income students to enroll in college remain an important outcome of Bright Futures.

This is true in spite of deceptive public information regarding its impact on academic preparation. It is critical for long-term economic stability that low- and middle-income students who prepare for and qualify for access to public and private four-year colleges have this opportunity.

The more troubling issue for Florida is that the state has reached a near crisis with respect to the financing of higher education. ***The critical challenge is to use the available dollars wisely.*** Subsidies to colleges and increased tuition charges must be coordinated with funding for need-based grant aid in order for the state to maintain equitable access. A substantial redesign of state financing policies may be needed to achieve fairer access while also providing adequate funding for public colleges.

Bright Futures can be altered to promote access in the financial environment Florida is now facing by:

1) freezing the maximum award for students without financial need;

2) raising the maximum award for students with demonstrated need; and

3) using needs analysis to determine additional amounts needed above the base award.

This approach would target additional funding on students with financial need while holding support steady for students and families who do not meet criteria for an additional award. This would provide the state with a simple method of coordinating tuition in public colleges with financial aid, ensuring access for prepared low-income students.

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