



**THE ECONOMIC DEVELOPMENT IMPORTANCE
OF ICUF AND THE FLORIDA RESIDENT ACCESS GRANT
TO THE STATE OF FLORIDA TAXPAYERS**

Submitted to:



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I. EXECUTIVE SUMMARY

- The educational institutions represented by the Independent Colleges and Universities of Florida (ICUF) are an important component of Florida's educational infrastructure. In the six years between 2006 and 2011 ICUF institutions issued 210,000 post-secondary degrees, contributing to the development of a skilled and educated Florida workforce necessary to maintain and enhance the global competitiveness of the State's economy.
 - ICUF institutions accounted for slightly more than one-fourth (25 percent) of all bachelor's degrees issued in Florida between 2006 and 2011,
 - ICUF institutions provided approximately two-fifths (40 percent) of all master's degrees issued in Florida, and
 - ICUF institutions issued nearly half of the doctorate or professional degrees.
- Graduates of ICUF institutions improve their job prospects and improve their earnings potential, significantly contributing to the economic development of Florida. Member institutions reported in the fall of 2011 that 68 percent of graduates found and retained employment within 18 months of graduation, and reported fourth quarter earnings of graduates for 2011 that compare favorably to earnings of graduates of Florida's State University System (SUS).
 - ICUF graduates with bachelor's degrees had average earnings that exceeded their SUS peers by 16 percent,
 - ICUF graduates with master's degrees had average earnings exceeding their SUS peers by 10 percent, and
 - ICUF graduates with PhDs: the earnings differential was 11 percent.
- The cost of tuition and fees for higher education nationally has increased at an average annual rate of 6.5 percent since 2000, far exceeding the pace of growth in median earnings for workers with bachelor's degrees, and student indebtedness has risen sharply since 2006.
- High levels of student debt and further cuts to financial aid at either the federal or state level are likely to lead to declines in enrollment or in completion rates. Either of these outcomes would be detrimental to Florida's long-term economic development and, eventually, lead to higher private and public costs of education per student. Florida is nearing a point where a typical student borrower cannot absorb higher levels of student debt, representing a real threat to Florida's investment in human capital and to the State's long-term economic development potential.

- The Florida Resident Access Grant (FRAG) represents an important component of tuition assistance for eligible students attending independent non-profit colleges and universities in Florida, allowing state residents to earn degrees that are of significant value to both the student and to the State's economy. Nearly 34,300 students received a FRAG in 2011. From this, the State gains well-trained human resources and knowledge-based talent as Florida's independent colleges and universities prepare a highly skilled workforce for Florida's dynamic and global marketplace.
- **The FRAG has been cut from a high of \$3,000 in 2007-08 to \$2,150 in 2012-13, a 29 percent reduction.** The value of the FRAG award has decreased by 44 percent over the past decade, after taking the increase in the cost of tuition and fees into consideration. This Study illustrates that further reduction in the FRAG award or elimination of the program would have significant adverse effects not only on employment and individual earnings, but also on the State economy and State government's revenues from business activity.
- To illustrate the impact of these past reductions in the FRAG in this Study, WEG has analyzed the statewide economic impacts of a potential reduction or elimination of the FRAG and found that such policies would adversely impact Florida's economy in terms of lost jobs, lost household income, and lost value of production or Gross State Product immediately upon implementation and extending out to 10 years.
- **Adverse Impacts on Florida's Economic Growth Over 10-Year Period:**
 - Reducing the FRAG from its current level by half would lead to average annual job losses ranging from 9,900 to 10,300 depending on whether directly affected students decide to transfer to public institutions or stop pursuing their higher education degrees. Eliminating the FRAG would result in average annual jobs losses ranging from 15,800 to 16,333.
 - A reduction of 50% in the FRAG from current levels would cost the State's households from between \$4.4 billion to \$4.5 billion in lost Labor Income over a decade, while the elimination of the FRAG would cost households between \$7.0 billion and \$7.2 billion. The decline in employment, accompanied by declining consumer purchasing power, adversely affects economic growth by reducing demand for goods and services.
 - Cumulative losses in the value of goods and services produced within Florida, as measured by Gross State Product over a decade would range between \$6.5 billion and \$6.8 billion from reducing the FRAG by half. Eliminating the FRAG increases those projected losses to the range of between \$10.3 billion and \$10.8 billion.

■ **Economic Impacts on Florida’s Economy At Benchmark Years:**

- Reducing the FRAG by 50 percent or eliminating the program would annually cost Florida job losses ranging from nearly 8,800 jobs in the first year of implementation to 14,400, depending upon how many directly affected students transfer from private institutions to public institutions versus how many affected students decide to terminate their studies or not pursue college degrees.
- By the 10th year of implementation a 50 percent cut in the award or the elimination of the program, the employment losses increase significantly. The adverse effect on job growth results in losses ranging from a low threshold of 11,200 to a high end of 18,400.
- The job losses have adverse effects on Labor Income, household income and personal consumption spending, and generate negative impacts on businesses across a broad spectrum of industries as Florida would lose human capital needed for 21st Century competitiveness.
- Lost income and benefits to Florida’s workers in the 1st year range from \$400 million per year to \$621 million; and Florida’s Gross State Product is reduced within the range of \$575 million to \$948 million.
- In the 10th year of implementation, the annual losses in Labor Income have increased to within the range of \$510 million to \$793 million; while the loss in State Gross State Product (GSP) ranges from \$734 million to \$1.2 billion.

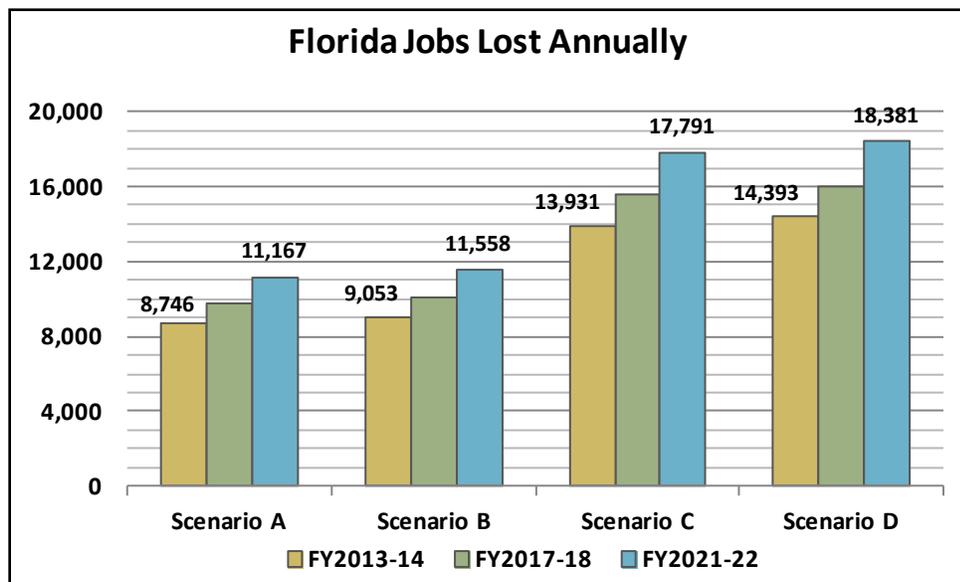


Figure ES-1.
Source: The Washington Economics Group, Inc.

- FRAG has yielded important benefits for Florida's students and its taxpayers, additional avenues for partnerships between the public and private higher education systems must be identified to strengthen Florida's educational infrastructure and accelerate economic growth. According to the U.S. Department of Education's National Center for Education Statistics, Florida's independent colleges and universities provided nearly 35,000 non-governmental jobs to the State of Florida in 2010-2011, while gross payroll expenditures at ICUF institutions were nearly \$3 billion. Further, according to ICUF, Florida's 31 independent colleges and universities also contributed \$4.9 billion in total expenditures providing economic support to Florida businesses in 2010-2011.¹ ICUF institutions also provide significant intangible benefits to the State by creating a vibrant-business climate, contributing highly educated human resources to the statewide workforce as well as supporting high-wage, high-value added industries in the State.

Economic Impact Scenario	Impact Year	Economic Impact On Florida:			
		Employment (Jobs, Annual Average)	Labor Compensation (\$ million)	Gross State Product (\$ million)	Gross Business Revenues (\$ million)
50 Percent Reduction in FRAG					
Scenario A: i) One half of students receiving FRAG shift to state institutions with additional financial costs to state, and ii) Increase in net-cost of education to FRAG students remaining in private institutions.	1st year	-8,746	-\$399.6	-\$574.5	-\$969.1
	5th year	-9,751	-\$445.5	-\$640.4	-\$1,080.4
	10th year	-11,167	-\$510.3	-\$733.5	-\$1,237.3
Scenario A. Cumulative Impact over 10-Year Period		-9,924	-\$4,534.8	-\$6,518.4	-\$10,996.7
Scenario B: i) <u>No shift</u> in enrollment to state institutions, but <u>one third of students directly affected by FRAG reduction fail to complete degrees</u> , and ii) Increase in net-cost of education to FRAG students remaining in private institutions.	1st year	-9,053	-\$390.2	-\$599.6	-\$1,044.8
	5th year	-10,092	-\$435.0	-\$668.4	-\$1,164.7
	10th year	-11,558	-\$498.2	-\$765.5	-\$1,333.9
Scenario B. Cumulative Impact over 10-Year Period		-10,272	-\$4,428.0	-\$6,803.5	-\$11,855.0
Elimination of the FRAG					
Scenario C: i) 75% shift in enrollment of FRAG grantees to state institutions with additional financial costs to state, and ii) Increase in net-cost of education to FRAG students remaining in private institutions.	1st year	-13,931	-\$635.1	-\$909.6	-\$1,542.5
	5th year	-15,530	-\$708.0	-\$1,014.1	-\$1,719.7
	10th year	-17,791	-\$811.0	-\$1,161.6	-\$1,969.9
Scenario C. Cumulative Impact over 10-Year Period		-15,809	-\$7,206.9	-\$10,322.2	-\$17,504.7
Scenario D: i) <u>No shift</u> in enrollment to state institutions, but <u>one third of students directly affected by FRAG reduction fail to complete degrees</u> , and ii) Increase in net-cost of education to FRAG students remaining in private institutions.	1st year	-14,393	-\$620.9	-\$947.5	-\$1,656.6
	5th year	-16,046	-\$692.2	-\$1,056.3	-\$1,846.9
	10th year	-18,381	-\$792.9	-\$1,210.0	-\$2,115.6
Scenario D. Cumulative Impact over 10-Year Period		-16,333	-\$7,045.7	-\$10,752.2	-\$18,799.4

Note: Impacts presented in the table represent difference from values that would have occurred if the FRAG was continued at present grant levels and eligibility criteria. Economic variables expressed in dollar values have been adjusted for inflation and hold prices constant at 2012 levels. Economic impacts were estimated using a Florida model developed by Minnesota Implan Group.

Source: The Washington Economics Group, Coral Gables, FL.

¹U.S. Department of Education National Center for Education Statistics, IPEDS and Independent Colleges and Universities of Florida (ICUF), 2012.

II. THE ECONOMIC DEVELOPMENT IMPORTANCE OF ICUF INSTITUTIONS TO THE STATE OF FLORIDA

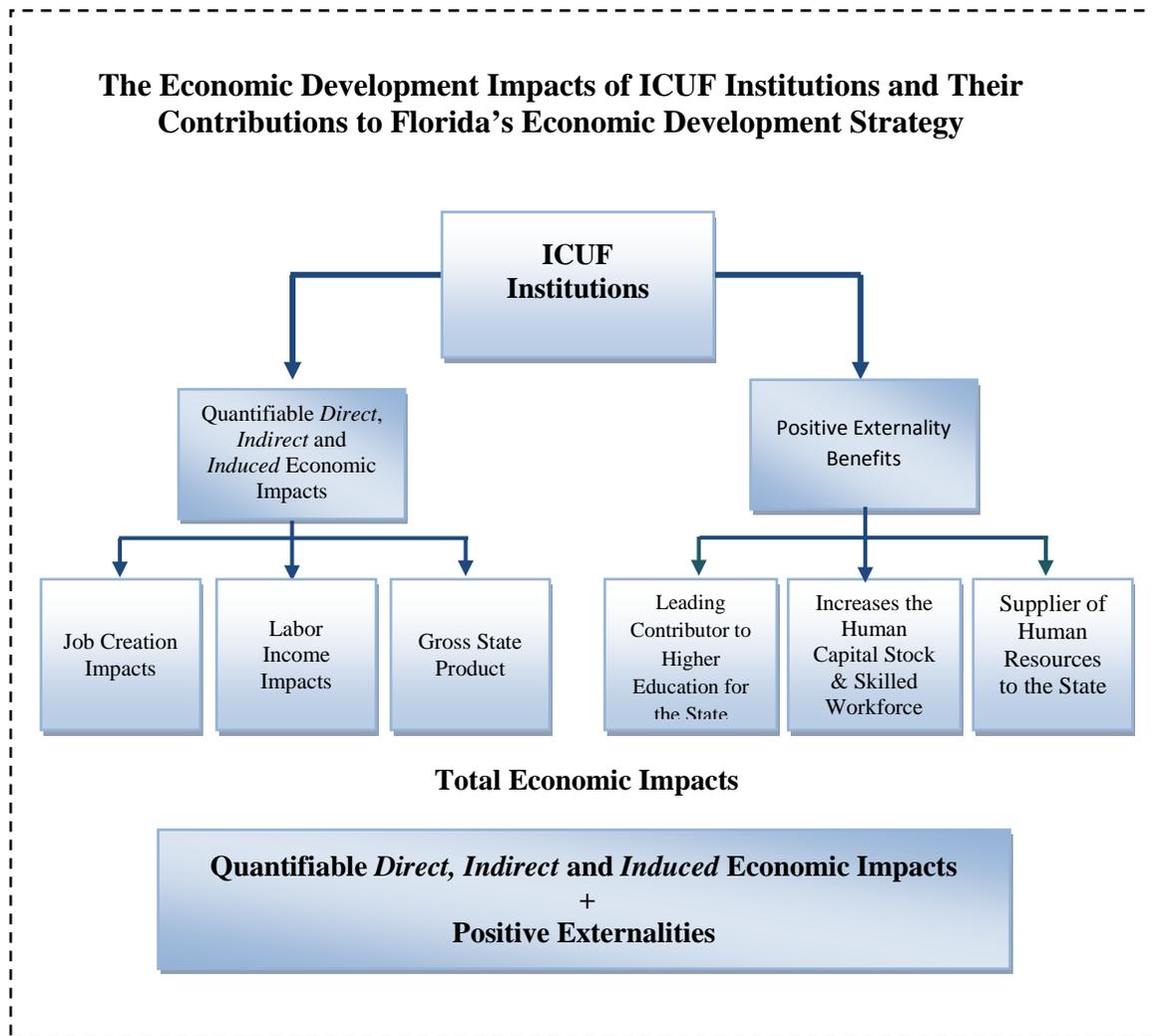
The State of Florida faces economic development challenges in the competitive 21st Century global economy where talent and smart workforce creation is the foundation for an innovative and high-wage economy. The 31-member institutions of ICUF provide significant intangible benefits to the State. These award approximately 25 percent of all of Florida's bachelor's degrees thereby promoting the State's reputation for having a vibrant-business climate, contributing highly educated human resources to the statewide workforce while also supporting targeted industries in the State.

According to Enterprise Florida's *2010-2015 Strategic Plan for Economic Development*, "education and world class talent *is* economic development" as higher education and talent provide the foundation for Florida to lead in the global economy. Thus, Florida's independent colleges and universities provide the State with the necessary tools to achieve statewide economic growth and development as important elements for maintaining and expanding the size of the State's workforce in the supply of highly skilled, multi-talented workers prepared to enter the workforce. The presence of ICUF institutions in the State is also a positive force in the attraction of new businesses and the retention of existing ones as their educational programs produce highly skilled graduates.

By providing access to low-cost/high-quality higher education options to more than 153,000 students, ICUF institutions award high-demand degrees to the State's workforce. For example, ICUF institutions award 38 percent of the Science, Technology, Engineering and Math (STEM) degrees, thus providing education, training and workforce development in these industries that are targeted by the private sector and contribute to the critical foundations of economic development in Florida. The increased supply of high skilled and specialized workers caters to marketplace demand by improving the business climate of the State and by serving as a magnet to attract new firms.

Furthermore, the ICUF colleges and universities function as important sources of economic and human capital development through not only its graduates, but via the institutions' ongoing operations which strengthen the State's bottom line and economic development foundation. ICUF's long-established leadership within Florida's higher education sector has led the institutions to focus on programs and activities that are crucial to future economic development in the State.

While the economic impacts quantified in the following sections of this Study are important, the unquantifiable economic development benefits (*the externality benefits that accrue to the whole society*) provided to the State by ICUF institutions are also key points to consider. These non-quantifiable impacts generate additional production, income and employment throughout the economy via inter-industry (supply-chain) linkages and consumer spending of Labor Income, and result in an economic multiplier effect. The matrix below illustrates the externality benefits generated by the presence and activities of ICUF institutions to the State of Florida.



III. INDEPENDENT COLLEGES AND UNIVERSITIES AS IMPORTANT COMPONENTS OF ECONOMIC DEVELOPMENT AND FLORIDA'S HIGHER EDUCATION SYSTEM

A. *Private Colleges and Universities as Efficient Partners in Meeting Florida's Higher Education Demand*

Florida has long acknowledged the important role played by private colleges and universities. In addition to contributing to the development of the skills and knowledge base that supports social mobility and enhances State economic development, Florida's private colleges and universities:

- 1) Are an integral part of the higher education system in Florida;
- 2) Broaden the choice of higher education programs available to many Floridians; and
- 3) Reduce the State's cost of providing public education, yielding savings to Florida's taxpayers.

Current enrollment projections for the State's public colleges and universities suggest that an increase of \$8.1 billion in operating expenditures for instruction will be needed over the next five years, but this figure will be higher without an expansion in enrollment at Florida's private colleges and universities.² The State's Office of Program Policy Analysis and Government Accountability (OPPAGA) conducted a review of the Florida Resident Access Grant (FRAG) program in 2003 and concluded that FRAG very likely saved money for Florida's taxpayers. Based on FY2001-02 data, OPPAGA estimated that if the FRAG were eliminated, more than one fourth of the recipients would transfer to a State institution, and then the State's cost of educating those transfer students would have exceeded the budget savings from eliminating the FRAG.³

The Council of 100, in their report titled *Higher Education Funding Task Force Position Paper*, March 2003, stressed the need for adequately funding higher education in order to provide the quality workforce required by the business community, and supported the need for the FRAG program in Florida. The Council's report recognized FRAG as a highly cost-effective component of a plan to relieve the stress facing Florida's infrastructure at public universities and colleges. Recently the Council, in their report *Closing the Talent Gap, 2011 Annotated Edition*, emphasized the need to leverage the facilities of the non-profit and for-

² This projection assumes that education and general operating expenditures per FTE would remain at their current levels in real terms – that is, increasing only to meet expected price inflation. The amount of additional funding required would be higher if the State acts to increase its support per student.

³ This calculation was based on a full cost estimate of \$10,106 per 31-student credit hour FTE. The typical student in the public system attempts more credit hours from admission to graduation than a student in the private system, and, therefore the breakeven enrollment shift could be even less than 25 percent.

profit colleges and universities in order to meet the capacity requirements of Florida’s post-secondary educational system. In this endeavor they called for optimizing the State’s use of FRAG.

FRAG awards are available only to full-time Florida resident students pursuing a baccalaureate degree at a private non-profit institution in Florida. **The maximum annual FRAG award is \$2,150, which has been most recently subjected to declines in nominal terms, but especially so after consideration of the rapid rise in the cost of tuition. When adjusted for inflation the value of the FRAG has declined almost steadily for much of the last decade.** When expressed in 2012 dollars, the FRAG declined from a high of \$4,863 in the 2002-03 academic year to \$3,630 by 2004-05. After a brief respite, the value of the award has declined steadily for the past 8 years to the current value, \$2,150.

The FRAG yields significant benefits to Florida students and taxpayers. The FRAG program, however, should be revised to remove or minimize the annual fluctuations in the award per student bringing greater predictability of the grant award while the student is enrolled. Increasing FRAG awards is also necessary to reflect more accurately the cost of undergraduate education as well as the fiscal benefits to the State’s taxpayers from a student attending a Florida private institution versus a public institution.

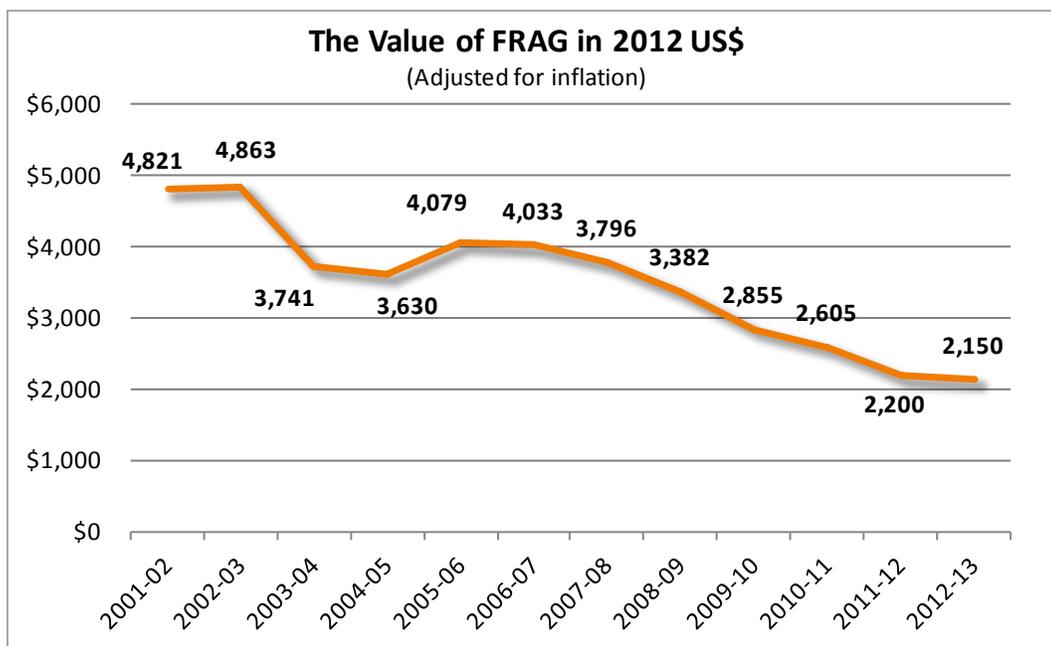


Figure 1.
Source: The Washington Economics Group, Inc.

While the FRAG has yielded benefits for Florida's students and its taxpayers, additional avenues for partnerships between the public and private higher education system must be identified to strengthen Florida's educational infrastructure and accelerate economic growth. According to the U.S. Department of Education's National Center for Education Statistics, Florida's independent colleges and universities provided nearly 35,000 non-governmental jobs to the State of Florida in 2010-2011, while gross payroll expenditures at ICUF institutions were nearly \$3 billion. Further, according to ICUF, Florida's 31 independent colleges and universities also contributed \$4.9 billion in total expenditures providing economic support to Florida businesses in 2010-2011.⁴ As the State develops new public policies to strengthen Florida's higher education system in terms of access and quality, it cannot afford to ignore the benefit it receives from the State's private colleges and universities as it addresses the challenge of protecting and enhancing Florida's global competitiveness.

B. Recent Trends in State Spending Per SCH and FTE Suggest Latest Figures Understate the Cost of Instruction

Inflation-adjusted or *real* State educational expenditures per student have tended to follow a pattern that parallels the macroeconomic business cycle – rising during periods of robust economic growth when State revenue growth is strong and falling during periods of economic stagnation or contraction. During these periods less State revenues may be available to fund education, while at the same time enrollments continue to grow.⁵ These fiscal pressures lead to higher average class size and other measures that reduce real costs per student, but do not necessarily reflect real efficiencies in the delivery of educational services or outcomes.

As an economic recovery gathers steam, fiscal pressures alleviate, and operating budgets grow to reflect the State's long-term priority in expanding access and improving the quality of higher education. In the latter half of the 1990s, costs per student rose significantly, but began a recent decline following the 2001 recession. Operating expenditures per student at the community college level fell by 16 percent in real terms from FY 2000-01 to FY 2003-04 and by 13 percent at the university level over that same period⁶. Operating expenditures per student in the Florida college system recovered by 9 percent from FY 2003-04 to FY 2006-07, as State revenues benefited from a construction-led economic expansion, and

⁴ U.S. Department of Education National Center for Education Statistics, IPEDS and Independent Colleges and Universities of Florida (ICUF), 2012.

⁵ Enrollment growth may actually accelerate as it becomes more difficult for first time entrants to the labor force to find employment, and, therefore, they choose to attend college or even take more credits than they had otherwise planned.

⁶ Florida Dept. of Education, *Fact Book* and Board of Governors, State University System website.

expenditures per student increased by 7 percent in the State University System. Despite the recovery in overall State revenues, operating expenditures per student in Florida’s public colleges and universities in FY 2006-07 did not return to levels experienced in FY 2000-01 after adjusting for price inflation.

The recession that began at the end of 2007 and the resulting State revenue losses led the return to a declining trend in expenditures per student. By FY 2011-12 operating expenditures per student fell 20 percent from 2006-07 levels. The economic growth imperative for greater spending on education in real terms is likely to build as global competition intensifies, driving operating expenditures per student to move toward its historical long-run growth path.

In WEG’s assessment, the oscillating pattern of funding to meet the State’s higher education needs and, more importantly, the more recent negative trend in inflation-adjusted higher education operating expenditures per student, are harmful to Florida’s efforts to create a competitive knowledge-based economy unless expenditure reductions reflect true efficiency gains. Florida currently ranks 33rd among the 50 states in state higher education appropriations per full-time equivalent (FTE) student.⁷

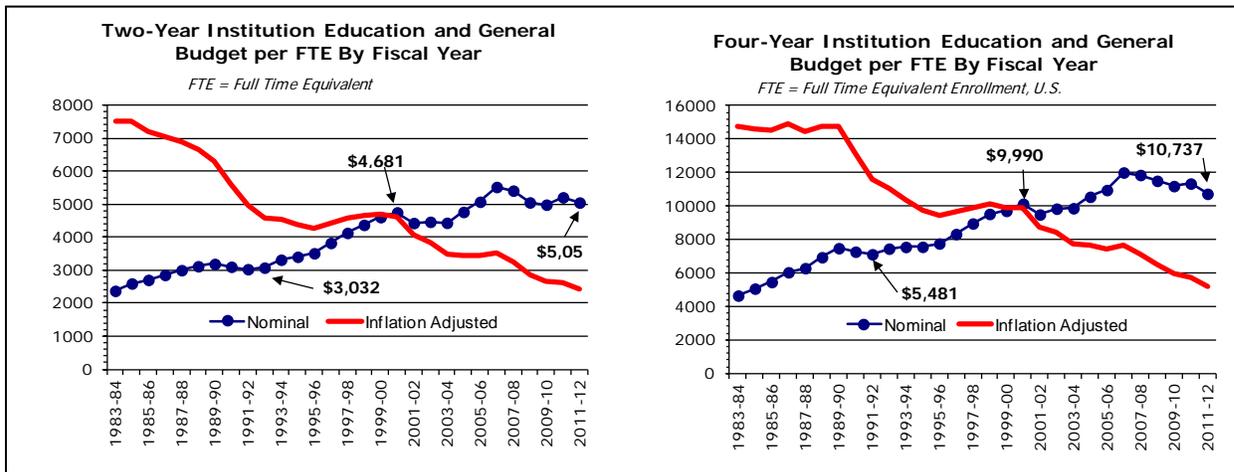


Figure 2.
Sources: *The Factbook*, Feb 2012 Florida DOE and The Washington Economics Group, Inc.

Figure 3.
Sources: *Board of Governors*, SUS website and The Washington Economics Group, Inc.

US Census data suggests that efficiency gains are not being realized. In 2000 Florida ranked 35th among all states for the percent of the population 25 years and older with a bachelor’s degree and by 2011 that ranking had slipped to 37th. Florida also fell two spots among states

⁷ *State Higher Education Finance: FY 2010*. State Higher Education Executive Officers (SHEEO) 2011.

for the percent of population holding professional or graduate degrees, from 32nd to 34th.⁸ Florida's college completion rate of 47 percent within 6 years ranked 38th among all states in 2009.⁹ In 2001, Florida's completion rate stood at 54 percent and ranked 22nd among the states. The costs to the Florida economy extend beyond academic achievement. According to the US Patent and Trademark Office, Florida ranked 32nd among states for patents per thousand residents in 2011, which was down from 29th in 2001. Florida is also falling behind in attracting venture capital, and ranked 29th in venture capital dollars per capita in 2012. In 2007 Florida ranked 22nd in attracting venture capital, according to the State Science and Technology Institute.¹⁰ In essence, the State faces a significant economic development challenge in a competitive 21st Century global economy where talent creation is the foundation for innovation and high-skill high-wage job creation.

C. Rising Student Indebtedness Threatens Florida's Investment in Human Capital Formation and Long-Term Economic Development

A recent report from the Federal Reserve Bank of New York (FRBNY) indicates that at the national level, student debt is already reaching its limits. Between 2004 and 2012 total student debt grew from \$260 billion to \$966 billion, a 272 percent increase, as both the number of borrowers and the average balance increased rapidly. Student debt, in fact, was the only category of household debt that continued to grow even after the start of the recession in 2008. Since 2004 the proportion of 25 year-olds with student debt grew from 27 percent to 43 percent, while the total number of borrowers and average balance per borrower each grew by 70 percent. Student loan debt has consistently risen faster than the increase in average earnings of workers that need at least a two-year degree. It appears that we are reaching a point where a typical student borrower cannot absorb higher levels of student debt.

Student loan delinquency data suggest that maybe additional borrowing would be a successful strategy to address the rising cost of higher education, placing bachelor's, graduate and professional degrees beyond the reach of qualified applicants. Household financial data shows that 17 percent of all student loans are in repayment, but delinquent by 90 days or more. Student loan delinquencies of at least 90 days nearly doubled from 9.6 percent in 2004 to 17.5 percent in 2012. Forty-four (44) percent of student loan borrowers, however, are not yet in repayment due to deferments or forbearances. Excluding borrowers not in repayment, increases the 90+ day delinquency rate to 31 percent in 2012 compared to 20 percent in 2004.

⁸ The 2000 educational attainment data is from the 2000 Decennial Census, Summary File 4 2011 educational attainment data is from the American Community Survey 2011 1-Year Survey.

⁹ NCHEMS Information Center for Higher Education Policymaking and Analysis, 2013, website.

¹⁰ U.S. Venture Capital Dollars and Deals by State, 2007-2012, *SSTI Weekly Digest*, February 16, 2013.

More than one third of borrowers under age 30 and in repayment were delinquent 90 days or more.

The debt burden on college graduates in Florida has grown over the last five years for students at both public and private institutions. Students at public institutions have seen the ratio of student debt to median income grow by a third from 2006 to 2011, from 36 percent of median income in 2006 to 48 percent in 2011. The average debt of students from Florida public institutions was \$14,650 in 2006 and grew by 37 percent to reach \$20,050 in 2011. Over that same period, median incomes for Florida college degree holders grew from \$41,060 to \$41,890. Throughout the same period, student debt at private non-profit institutions was higher than at their public counterparts, however, the ratio to median income grew at a slower pace. The ratio in 2006 was 60 percent and grew to 68 percent in 2011, a 15 percent increase. Average student debt grew 17 percent from \$24,500 in 2006 to \$28,650 by 2011. In light of the high levels of student debt, further cuts to tuition assistance programs at either the federal or state levels are likely to lead to declines in enrollment or in completion rates. Either of these outcomes would be detrimental to Florida's long-term economic growth and, ironically, lead to higher private and public costs of education per student.

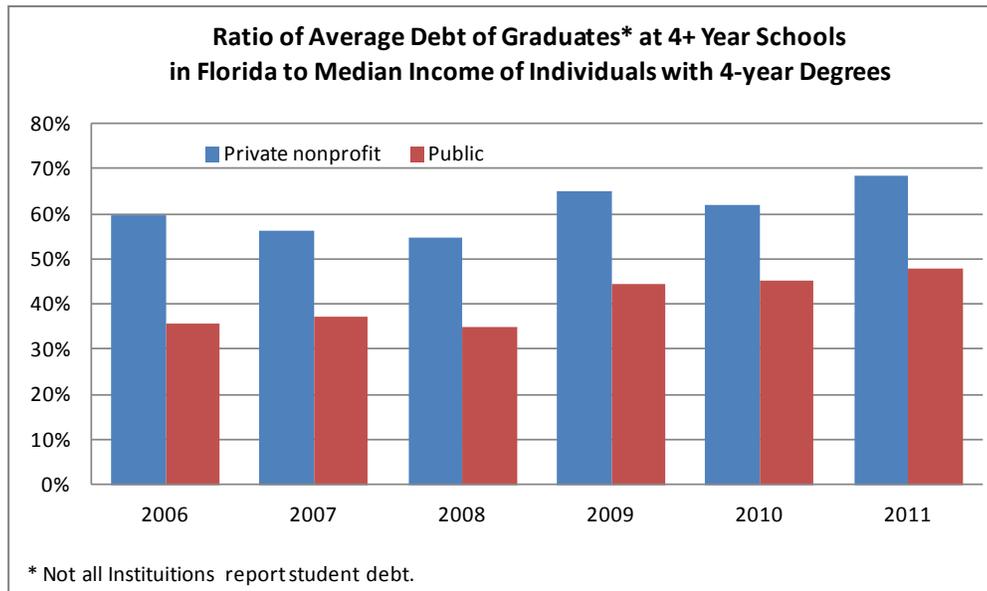


Figure 4.

Sources: The Institute for College Access & Sources, College InSight, www.college-insight.org and US Census Bureau 2005-2011 American Community Survey 1-year estimates.

IV. EDUCATIONAL CONTRIBUTIONS OF ICUF INSTITUTIONS AND THE ECONOMIC IMPACTS OF A POTENTIAL REDUCTION IN THE FLORIDA RESIDENT ACCESS GRANT (FRAG)

A. Educational Contributions of ICUF Institutions

The educational institutions belonging to the Independent Colleges and Universities of Florida (ICUF) issued 210,000 post-secondary degrees during the period from 2006-2011. These institutions granted nearly 25,700 associate's (two-year) degrees, 106,800 bachelor's (four-year) degrees and 77,400 graduate and professional degrees. ICUF members have proven to be crucial resources in the State's efforts to keep up with the demand for a more technically skilled and educated workforce. Yet financial pressures have affected the ability of these independent colleges and universities from providing the benefits they otherwise could during a period when the public system struggles with financial pressures from growing demand for post-secondary education degrees. ICUF institutions contributed 27 percent of the State's bachelor's degrees in 2006. Despite experiencing a 12 percent growth in the number of degrees granted by 2011, their share of degrees conferred in Florida fell to 25 percent.

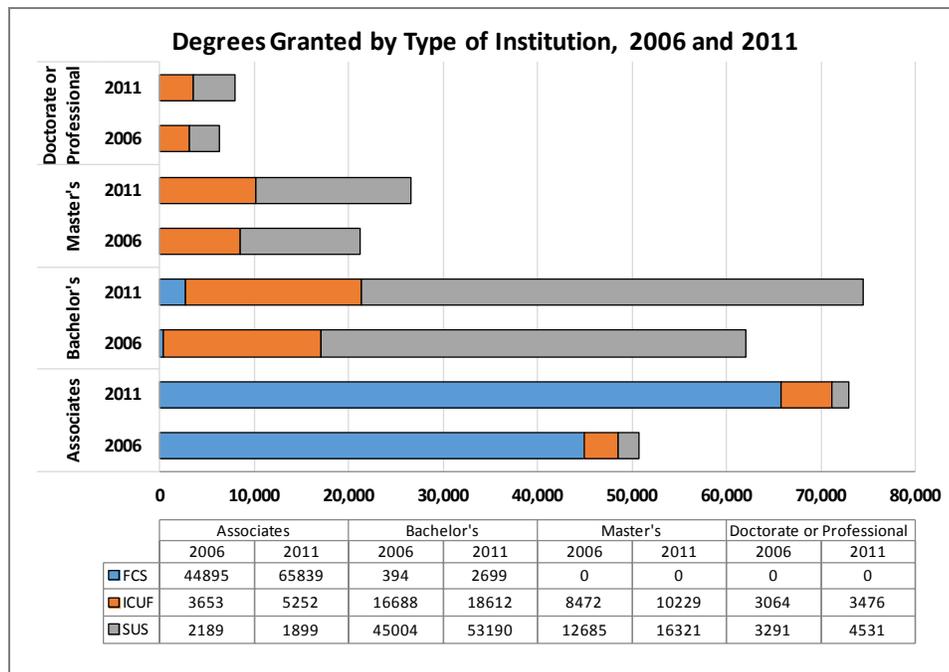


Figure 5.

Source: U.S. Department of Education National Center for Education Statistics, IPEDS, 3/2/2013.

While responding to the rise in demand for master’s degrees in the State, ICUF institutions’ share of conferred master’s degrees fell from 40 percent in 2006 to 39 percent in 2011. Over the same period, their share of professional or doctorate degrees declined from 48 percent in 2006 to 43 percent in 2011. The projected growth in demand for a well-educated workforce to sustain the potential growth of Florida’s economy calls for greater participation of independent colleges and universities in Florida’s educational infrastructure.

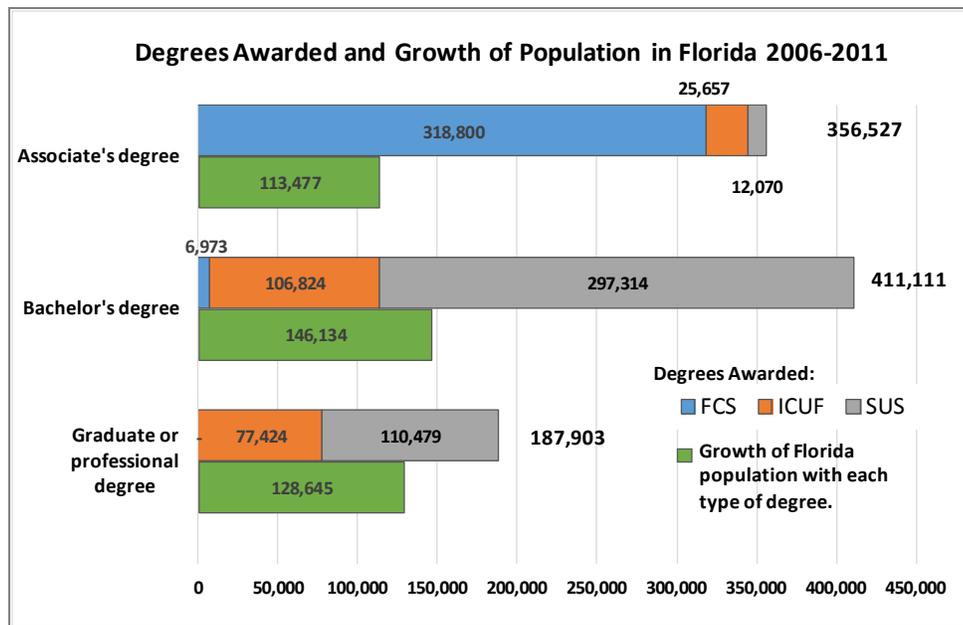


Figure 6.
 Source: U.S. Department of Education National Center for Education Statistics, IPEDS, 3/2/2013 and American Community Survey 2006-2011 (1-year survey).

A recent study by A. Carnevale and N. Smith (2012) projects Florida’s net demand for employment positions requiring associate’s and bachelor’s degrees, respectively, at 70,700 per year through 2020.¹¹ The number of conferred degrees required to meet employers’ net demand for skilled workers and to replace retiring workers is, of course, very important, but so is the quality of post-secondary educational programs. Annual reports required of independent colleges and universities indicate that as a group, ICUF members match or exceed in several performance benchmarks of institutions within the state college and university systems.

¹¹ Anthony P. Carnevale and Nicole Smith, *A Decade Behind: Breaking out of the Low Skill trap in the Southern economy*. Georgetown University, 2012. Many Florida students receive associate’s degrees before proceeding to earn a bachelor’s degree, and additional degrees at both levels will be needed to account for workers that retire from positions where an associate’s or a bachelor’s degree is required.

The *Florida Resident Access Grant Accountability Report: 2012* summarizes the quality of education services and the characteristics of students receiving a FRAG award. A minimum grade point average (GPA) of 2.0 is required for renewal of the FRAG award. The average GPA among all FRAG recipients in ICUF institutions was 2.92, and the average GPA among member institutions ranged from a high of 3.26 to a low of 2.37.

The average SAT score combined for all ICUF institutions requiring the SAT is 1023, placing the average FRAG recipient freshman in the 52nd percentile. Average freshman SAT test scores by institution range from a high of 1319 to a low of 808.¹²

The average retention rate reported in the *FRAG Accountability Report* for all ICUF schools combined was 68 percent in 2010. The comparable rate for State University System (SUS) schools was 77 percent, and 55 percent for Florida College System (FCS) schools (only 10 of the 29 FCS schools reported retention). The retention rate in 2010 at ICUF institutions, ranged from 90 percent to 48 percent.¹³

The National Student Clearinghouse Research Center recently released a report summarizing the 6-year completion rates at public and private universities by state for students starting their academic careers in 2006. The completion rates were reported by the institution attended where the student began their college studies. The 6-year completion rate for students who started at a 4-year private non-profit institution in Florida was 71 percent. When only considering full-time students the 6-year completion rate rose to 84 percent. Florida's 4-year public institutions did not perform as well by these retention measures that showed a total completion rate of just 56 percent. For full-time students the completion rate was comparable to their private non-profit peers at 83 percent. The Florida results were not much different from the completion rates reported for the national level. The same dataset shows that private non-profit institutions also outperformed their public counterparts at the national level, especially when part-time students are included. Four-year private non-profits had an aggregate 6-year completion rate of 72 percent compared to 61 percent for public institutions. For full-time students, the completion rates were 85 percent at private non-profit institutions and 81 percent at public institutions (see Figure 7 on the next page).

¹² SAT scores as reported at collegeboard.com, accessed March 3, 2013. Universities had the highest average SAT placing its freshmen among in the 91st percentile of all schools reporting.

¹³ The "retention rate" for students seeking a bachelor's degree represents the percentage of students who attended the prior fall semester, did not graduate and returned for the fall semester. For students seeking an associate's degree, the rate represents the percent of students who attended the institution in prior fall and returned in the current fall.

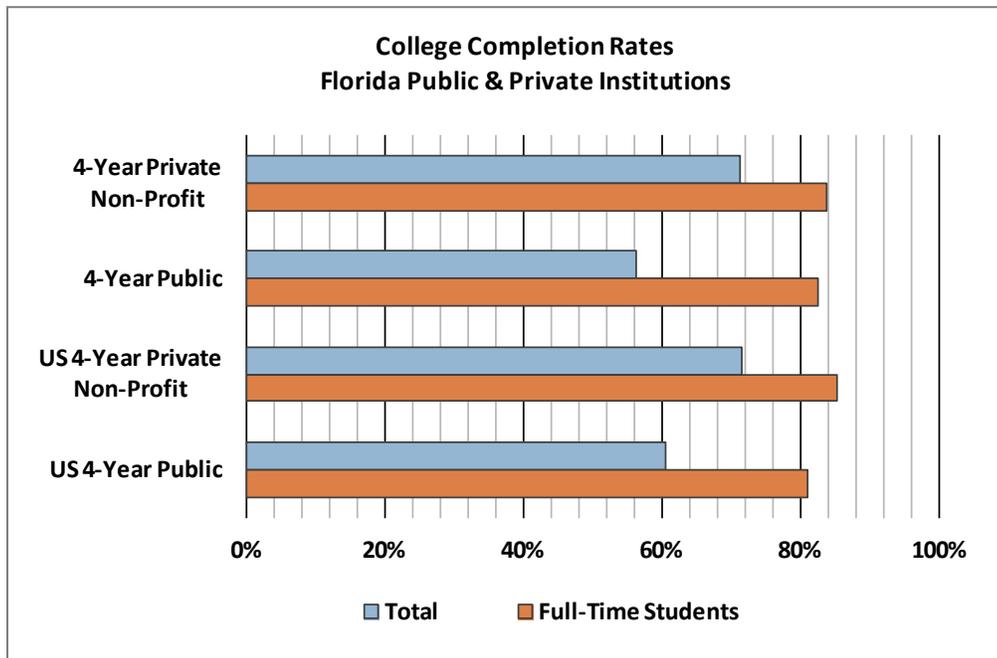


Figure 7.
 Source: *State Supplement: Completing College: A State-Level View of Students Rates*, National Student Clearinghouse Research Center.

The average earnings of ICUF graduates topped those of their State University System counterparts for bachelor’s, master’s and PhD degrees. ICUF students that earned a bachelor’s degree had average fourth quarter earnings in 2011 of \$10,400, compared to average fourth quarter earnings of \$9,000 for SUS bachelor’s degree graduates. Average fourth quarter earnings in 2011 for ICUF master’s degree graduates was reported at \$14,900, compared to \$13,600 for their SUS peers. In the case of PhDs, graduates of ICUF institutions reported average quarterly earnings of \$18,900 versus \$17,500 for PhDs graduating from an SUS institution.¹⁴

B. The Adverse Economic Impacts of Reductions or Eliminations in the Florida Resident Access Grant

It is widely recognized that Florida’s economic future largely depends on its ability to have a strong pool of highly skilled and highly educated workers, and yet the cost of attending a post-secondary educational institution in Florida (either a two-year or four-year program) is stretching beyond the reach of many Florida residents. Grant funding in general has diminished over the last few years, and student debt for many has climbed above sustainable levels. At the same time the real value of the Florida Resident Access Grant, after

¹⁴ The Florida Education & Training Placement Information Program (FETPIP) from the State’s Department of Education provides the earnings data cited for 2011.

consideration for the increase in the cost of tuition and fees, has been reduced by as much as 44 percent over the last decade. **These cuts have an adverse affect on the ability of independent colleges and universities in Florida to contribute fully to the important growth of the State's human capital stock.** Furthermore, these cuts have likely increased the taxpayers' burden of the cost of education in the publicly funded state system. Further cuts or the elimination of the FRAG places Florida's long-term economic development at risk and would most likely lead to higher costs to taxpayers.

The macroeconomic costs to Florida from the reduction or elimination of the FRAG follow along three key paths. The net cost of attaining a college education for a FRAG recipient increases with each decline in grant funding, thus increasing the probability that the student will transfer from the private institution to a public institution. A 2011 empirical study of the effect on enrollment from changes in tuition and grants by University of Maryland professors found a significant direct correlation between enrollment and federal grant funding using a large sample of public institutions. Their statistical analysis indicated that a 10 percent decrease in grant funding would lead to a 2.2 percent decline in enrollment.¹⁵ Private educational institutions in the State are likely to be smaller than the typical public institution, and, therefore, with fewer students the ability to take advantage of economies of scale diminishes, leading to reduction in employment (faculty and non-faculty) and in procurement of goods and services from Florida companies. The resulting negative fiscal impact on private institutions is disproportionate to the decline in the FRAG.

A second path of economic impact occurs through the associated State fiscal impacts that occur as students shift from a private not-for profit institution to a public one. The average differential between annual educational operating costs per FTE student in Florida's public colleges and universities and the FRAG award is approximately \$5,300.¹⁶ Those additional costs per FTE student that transfers or foregoes enrollment at a private institution in favor of a public institution must be covered by either additional tax revenue or reducing State spending in a different area. The aggregate additional cost from an enrollment shift has adverse effects on the State economy. It is possible however, that rather than inducing a

¹⁵ Steven W. Hemelt and David E. Marcotte, "The Impact of Tuition Increases on Enrollment at Public Colleges and Universities." *Educational Evaluation and Policy*, SAGE Publications, September 2011. This study examined the effect of Pell grants (among other variables) at public institutions, but the impact of external grants on enrollment are likely to be larger than those estimated in the study. Public institutions in geographic proximity are likely to represent stronger substitutes for private institutions in response to cost of attendance differentials. Nevertheless, the estimates from Hemelt and Marcotte were used in this analysis.

¹⁶ The average E&G (educational and general) annual operating cost at Florida colleges and university (weighted by enrollment) is approximately \$7,445, and the current maximum annual FRAG award is just below \$2,150.

transfer from a private institution to a public one, the student may suspend and ultimately not complete his or her degree. This possible scenario also has adverse consequences on the State's economic growth, as workers with less than two years of college education earn significantly less income and have, of course, lower spending.

FRAG grantees that remain at their institutions will have to close the financial gap caused by the reduction or elimination of the FRAG. Students who have already met their student loan limits may have to cut their living expenditures in order to complete their degrees, which reduces consumer spending in the economy with negative impacts on the State's economy.

The economic impacts of the aforementioned combination of direct effects were calculated with a Florida IMPLAN model that is widely used for economic impact analyses. This analysis examines the potential impact of a 50 percent reduction in FRAG, as well as the elimination of the grant, in order to provide an illustration of the potential net economic impacts of this student aid program. Two alternative student reactions in response to the reduction or elimination of the FRAG, respectively, are considered. The economic impacts are estimated for the 1st, 5th and 10th year following implementation of a policy change in order to reflect anticipated enrollment growth over time. Economic impacts are measured as differences from a baseline economic simulation (i.e., no change in FRAG policy). The economic impacts are summarized in Table 1 that follows on page 20.

As shown in Figure 9 on the next page and in Table 1 on page 20, the statewide economic impacts on employment in the **first year of implementation** under the four scenarios range from a low of 8,700 lost jobs (under *Scenario A* where the FRAG is reduced by half, 50 percent of FRAG recipients transfer from private institutions to public institutions and no FRAG recipients terminate their studies) to a high of 14,400 lost jobs (under *Scenario D* where the FRAG is eliminated, no FRAG recipients transfer to public institutions, and 75 percent of FRAG recipients terminate their studies). The impact on Florida's employment increases in the fifth year of implementation with the range of 9,800 job losses (*Scenario A*) to 16,000 jobs lost (*Scenario D*), while in the 10th year the job losses are in the range of 11,200 to 18,400.

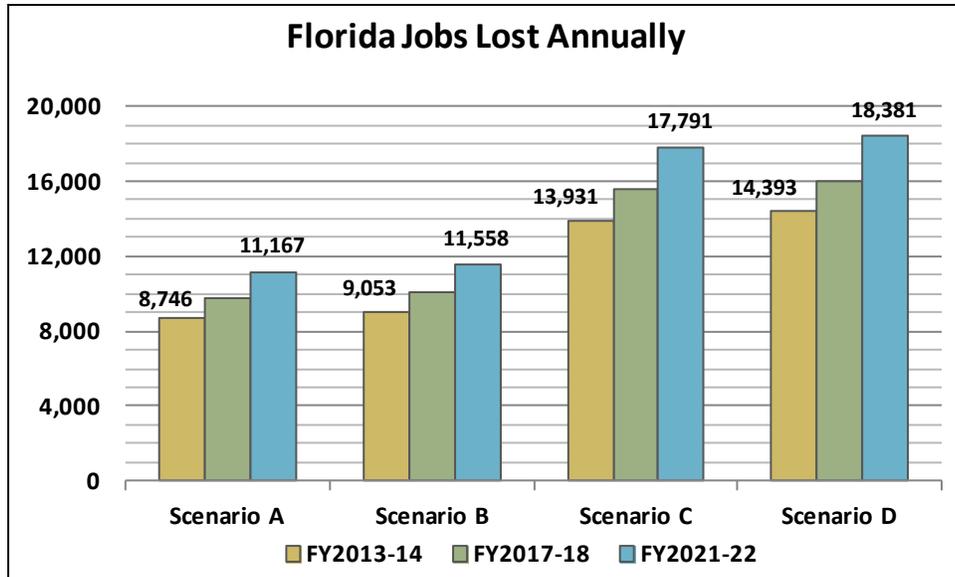


Figure 8.
Source: The Washington Economics Group, Inc.

Significant losses in aggregate labor compensation accompany the loss of jobs within the State. These losses in the 1st year of implementation range from nearly \$400 million in *Scenario A* to \$621 million in *Scenario D*. The range of economic impact to statewide labor compensation in the 5th year widens to \$446 million in *Scenario A* to \$692 million in *Scenario D*, and by the 10th year, the loss of labor compensation grows to between \$510 million in *Scenario A* to \$793 million in *Scenario D*. Losses in Labor Income are reflected in household personal income and directly influence consumer spending in the State, negatively affecting not only retailers and consumer services providers, but also suppliers of goods and services further down the supply chain.

Eliminating or reducing the FRAG would have an adverse impact on State GSP.¹⁷ WEG's analysis suggests that cutting the FRAG award by 50 percent or 100 percent would lead to a loss in Florida's GSP in the range of \$570 million (*Scenario A*; 50 percent reduction) to \$948 million (*Scenario D*; eliminating FRAG) during the 1st year of implementation. The loss to GSP would range from \$640 million (*Scenario A*) to \$1.1 billion (*Scenario D*) in the 5th year of implementation and \$734 million to \$1.2 billion in the 10th year of implementation.

¹⁷ *Gross State Product* (GSP) is a measure of a state's economic performance that is analogous to Gross Domestic Product (GDP) at the national level. GSP represents the value of goods and services produced within the state during a specified year. Florida's GSP was estimated at \$754 billion in 2011, according to the U.S. Bureau of Economic Analysis.

The economic cost to Florida from potential adverse policy changes to FRAG are largely driven by the projected decline in enrollment and directly associated workforce reductions at private institutions that are ICUF members (See Table 1 that follows). The decline in enrollment and associated workforce reduction accounts for nearly 80 percent of the adverse statewide impacts on employment in the scenarios that involve a shift in enrollment from independent non-profit institutions to public institutions (see Figure 8 on the previous page). The additional cost to publicly funded institutions from the enrollment shift accounts for nearly 18 percent of the adverse impacts on employment. The effect of the additional cost of attending college or university in scenarios A and C accounts for approximately 2 percent of the employment impact, although the additional cost represents significant hardships for FRAG-eligible students.¹⁸

Table 1. Economic Impact Summary: Economic Impact of Reduction and Elimination of Florida Resident Access Grant

Economic Impact Scenario	Impact Year	Economic Impact On Florida:			
		Employment (Jobs, Annual Average)	Labor Compensation (\$ million)	Gross State Product (\$ million)	Gross Business Revenues (\$ million)
50 Percent Reduction in FRAG					
Scenario A: i) One half of students receiving FRAG shift to state institutions with additional financial costs to state, and ii) Increase in net-cost of education to FRAG students remaining in private institutions.	1st year	-8,746	-\$399.6	-\$574.5	-\$969.1
	5th year	-9,751	-\$445.5	-\$640.4	-\$1,080.4
	10th year	-11,167	-\$510.3	-\$733.5	-\$1,237.3
Scenario A. Cumulative Impact over 10-Year Period		-9,924	-\$4,534.8	-\$6,518.4	-\$10,996.7
Scenario B: i) <u>No shift</u> in enrollment to state institutions, but <u>one third of students directly affected by FRAG reduction fail to complete degrees</u> , and ii) Increase in net-cost of education to FRAG students remaining in private institutions.	1st year	-9,053	-\$390.2	-\$599.6	-\$1,044.8
	5th year	-10,092	-\$435.0	-\$668.4	-\$1,164.7
	10th year	-11,558	-\$498.2	-\$765.5	-\$1,333.9
Scenario B. Cumulative Impact over 10-Year Period		-10,272	-\$4,428.0	-\$6,803.5	-\$11,855.0
Elimination of the FRAG					
Scenario C: i) 75% shift in enrollment of FRAG grantees to state institutions with additional financial costs to state, and ii) Increase in net-cost of education to FRAG students remaining in private institutions.	1st year	-13,931	-\$635.1	-\$909.6	-\$1,542.5
	5th year	-15,530	-\$708.0	-\$1,014.1	-\$1,719.7
	10th year	-17,791	-\$811.0	-\$1,161.6	-\$1,969.9
Scenario C. Cumulative Impact over 10-Year Period		-15,809	-\$7,206.9	-\$10,322.2	-\$17,504.7
Scenario D: i) <u>No shift</u> in enrollment to state institutions, but <u>one third of students directly affected by FRAG reduction fail to complete degrees</u> , and ii) Increase in net-cost of education to FRAG students remaining in private institutions.	1st year	-14,393	-\$620.9	-\$947.5	-\$1,656.6
	5th year	-16,046	-\$692.2	-\$1,056.3	-\$1,846.9
	10th year	-18,381	-\$792.9	-\$1,210.0	-\$2,115.6
Scenario D. Cumulative Impact over 10-Year Period		-16,333	-\$7,045.7	-\$10,752.2	-\$18,799.4

Note: Impacts presented in the table represent difference from values that would have occurred if the FRAG was continued at present grant levels and eligibility criteria. Economic variables expressed in dollar values have been adjusted for inflation and hold prices constant at 2012 levels. Economic impacts were estimated using a Florida model developed by Minnesota Implan Group.

Source: The Washington Economics Group, Coral Gables, FL.

¹⁸ The relative impact that each component to the loss of Gross State Product (GSP) is similar to the relative impact on statewide employment.

Source of Impact on Jobs

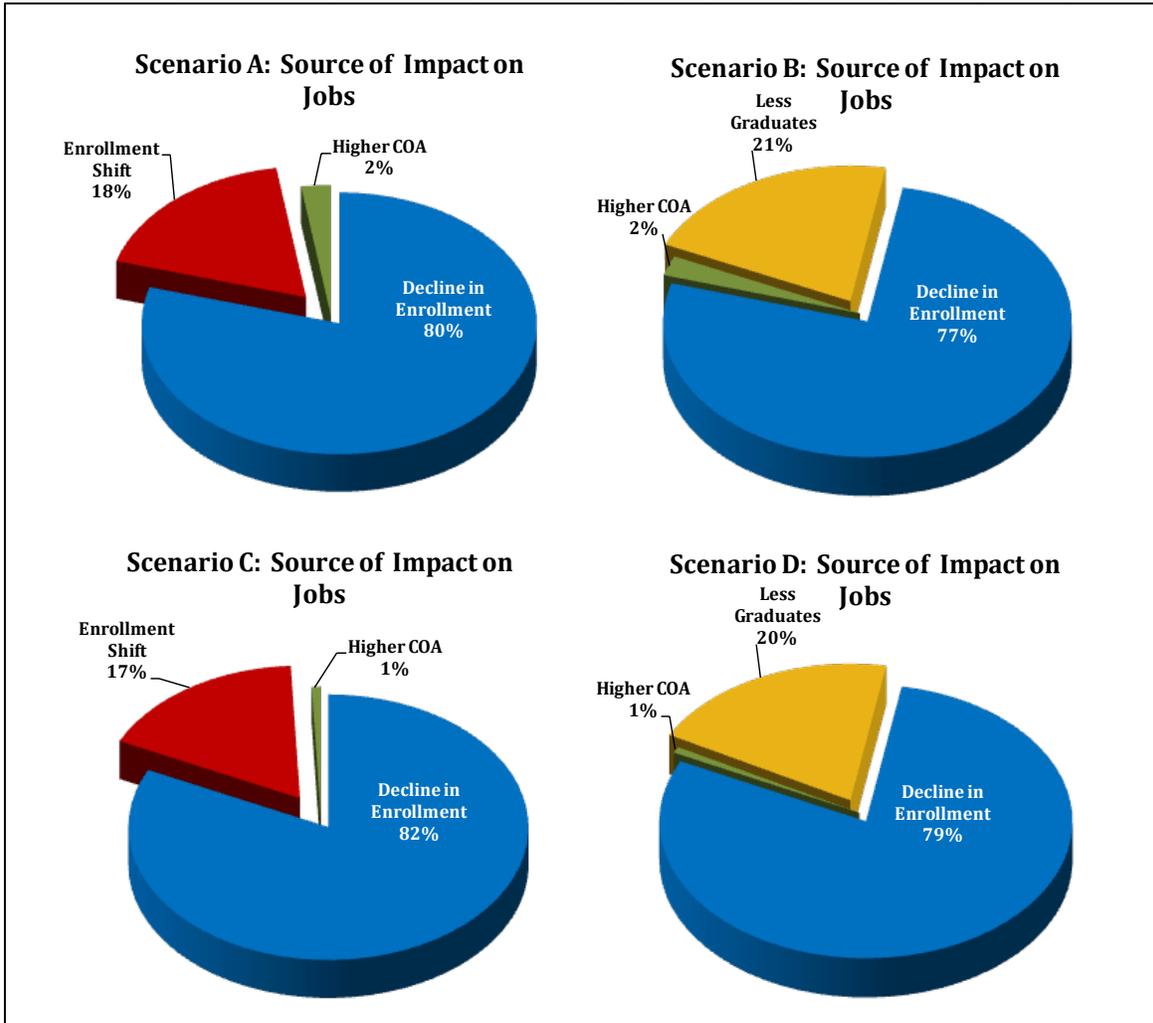


Figure 9.
Source: The Washington Economics Group, Inc.

Under scenarios that examine the economic impacts when the decline in the amount of the FRAG or its elimination lead not to an enrollment shift but instead result in FRAG eligible students choosing not to pursue post-secondary degrees, the statewide employment effects are more adverse. Not only are the losses of jobs greater in Scenarios B and D, but the reduction in the population with post secondary degrees accounts for a more significant role in determining the adverse employment impact than the role played by a shift in enrollment. Approximately 20 percent of the loss of jobs in the State is attributed to a decline in adults with two-year college degrees or higher in scenarios B and D. While the negative and direct fiscal impacts are smaller when shifts in enrollment are small, they come at the cost of greater economic losses to the State.

C. Relative Influence of Factors Determining Economic Impact Analysis

Table 2 below separates the economic impacts according to the different factors determining (or driving) the projected adverse effects associated with the reduction or elimination of FRAG. The loss of jobs in independent non-profit institutions due to an expected decline in enrollment is the biggest factor, followed by the additional cost of providing education to students that transfer to public institutions in Scenarios A and C. In the case of Scenarios B and D, the resulting decline in workers with college or university degrees is the second largest factor driving the projected adverse economic impact of reducing or eliminating the FRAG.

Table 2. Economic Impact by Scenario and Source: FY 2017-2018

Economic Impact Scenario	Economic Impact On Florida:			
	Employment (Jobs)	Labor Compensation (\$ million)	Gross State Product (\$ million)	Gross Business Revenues (\$ million)
Scenario A, 50% FRAG Reduction:				
Decline in enrollment at private institutions	-7,747	-\$335.8	-\$484.3	-\$871.2
Enrollment shift and associated State costs.	-1,767	-\$99.8	-\$138.1	-\$180.1
Higher net-cost of education at private Inst.	-236	-\$9.9	-\$18.1	-\$29.0
Loss of adults with at least 2-year college degrees.	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
TOTAL IMPACT	-9,751	-\$445.5	-\$640.4	-\$1,080.4
Scenario B, 50% FRAG Reduction:				
Decline in enrollment at private institutions	-7,747	-\$335.8	-\$484.3	-\$871.2
Enrollment shift and associated State costs.	NA	NA	NA	NA
Higher net-cost of education at private Inst.	-236	-\$9.9	-\$18.1	-\$29.0
Loss of adults with at least 2-year college degrees.	<u>-2,109</u>	<u>-\$89.3</u>	<u>-\$166.1</u>	<u>-\$264.5</u>
TOTAL IMPACT	-10,092	-\$435.0	-\$668.4	-\$1,164.7
Scenario C, Elimination of FRAG:				
Decline in enrollment at private institutions	-12,750	-\$552.6	-\$797.0	-\$1,433.9
Enrollment shift and associated State costs.	-2,665	-\$150.6	-\$208.3	-\$271.7
Higher net-cost of education at private Inst.	-115	-\$4.8	-\$8.8	-\$14.2
Loss of adults with at least 2-year college degrees.	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>
TOTAL IMPACT	-15,530	-\$708.0	-\$1,014.1	-\$1,719.7
Scenario D, Elimination of FRAG:				
Decline in enrollment at private institutions	-12,750	-\$552.6	-\$797.0	-\$1,433.9
Enrollment shift and associated State costs.	NA	NA	NA	NA
Higher net-cost of education at private Inst.	-115	-\$4.8	-\$8.8	-\$14.2
Loss of adults with at least 2-year college degrees.	<u>-3,181</u>	<u>-\$134.7</u>	<u>-\$250.5</u>	<u>-\$398.9</u>
TOTAL IMPACT	-16,046	-692	-1,056	-1,847

Source: The Washington Economics Group, Inc.

APPENDIX I:
LIST OF ICUF MEMBER INSTITUTIONS

List of ICUF Member Institutions

1. *Adventist University of Health Sciences*
2. *Ave Maria University*
3. *Barry University*
4. *Beacon College*
5. *Bethune-Cookman University*
6. *Clearwater Christian College*
7. *Eckerd College*
8. *Edward Waters College*
9. *Embry-Riddle Aeronautical University*
10. *Everglades University*
11. *Flagler College*
12. *Florida College*
13. *Florida Institute of Technology*
14. *Florida Memorial University*
15. *Florida Southern College*
16. *Hodges University*
17. *Jacksonville University*
18. *Keiser University*
19. *Lynn University*
20. *Nova Southeastern University*
21. *Palm Beach Atlantic University*
22. *Ringling College of Art and Design*
23. *Rollins College*
24. *Saint Leo University*
25. *Southeastern University*
26. *St. Thomas University*
27. *Stetson University*
28. *The University of Tampa*
29. *University of Miami*
30. *Warner University*
31. *Webber International University*

**APPENDIX II:
METHODOLOGY**

IMPLAN MODEL

The multiplier impacts calculated by the IMPLAN model are based on input-output methodology, which explicitly considers the inter-industry linkages that exist within an economy. Each industry needs labor and inputs from other industries in order to produce economic output. Whenever an industry experiences an increase in the demand for its output, many other industries within that economy indirectly experience an increase in demand as well because of these inter-industry linkages. This increase in demand that results from the need for material inputs is called the *indirect effects*. In addition, an increase in production within a region also leads to an increase in household income through the hiring of workers, which in turn generates further demands for goods and services within the region. Firms also need to expand their base of physical capital to meet higher levels of demand, and this too stimulates regional economic growth. The latter effects are referred to as *induced effects*. The inter-industry linkages and the induced effects on consumer and capital spending lead to successive rounds of production, and this process results in an increase in output that exceeds the initial change in demand, or a *multiplier effect*. Similarly, the increase in household income will exceed the initial payroll increase encountered in the industry that experienced the original increase in demand. The total change in employment in the regional economy is a multiple of the direct change in employment.

The following represents the system of equations that comprise the regional economy in an extended input-output model like IMPLAN:

$$\begin{aligned}x_1 &= a_{11}x_1 + a_{12}x_2 + a_{13}x_3 + \cdots + a_{1k}x_k + a_{1h}x_h + a_{1i}x_i + f_1 \\x_2 &= a_{21}x_1 + a_{22}x_2 + a_{23}x_3 + \cdots + a_{2k}x_k + a_{2h}x_h + a_{2i}x_i + f_2 \\x_3 &= a_{31}x_1 + a_{32}x_2 + a_{33}x_3 + \cdots + a_{3k}x_k + a_{3h}x_h + a_{3i}x_i + f_3 \\&\vdots \\x_k &= a_{k1}x_1 + a_{k2}x_2 + a_{k3}x_3 + \cdots + a_{kk}x_k + a_{kh}x_h + a_{ki}x_i + f_k \\x_h &= a_{h1}x_1 + a_{h2}x_2 + a_{h3}x_h + \cdots + a_{hk}x_k + a_{hh}x_h + a_{hi}x_i + f_h \\x_i &= a_{i1}x_1 + a_{i2}x_2 + a_{i3}x_h + \cdots + a_{ik}x_k + a_{ih}x_h + a_{ii}x_i + f_i\end{aligned}$$

The variables x_1 to x_k represent total production of output in each industry. The coefficients a_{ij} represent the purchases from industry “i” that are needed to produce a dollar of output in

industry “j”. These are known as the *direct requirement* coefficients. The variable x_h refers to household income and the coefficients a_{ih} refer to the average amount of household income spent on purchases from industry “i”, or the *average propensities to consume*. The coefficients a_{hi} are similar to the inter-industry purchases (a_{ij} ’s), but they represent the household income that is generated from each dollar of output produced in industry “i”. Similarly the variable x_c represents regional spending on capital goods, and the coefficients a_{ij} represents the spending on capital goods for each dollar of output produced in industry “j”. The coefficients a_{ji} represent the amount purchased from industry “j” for each dollar spent on capital goods within the region. The variables f_j represent the exogenous final demand faced by each industry, respectively.

This system of equation reduces, using matrix notation, to the following solution for industry output and household income:

$$X = (I - A)^{-1} F$$

X is the vector of industry outputs plus household income and F is a vector of exogenous final demands. The “output multipliers” (i.e., the change in industry output and household income that results from a change in final demand for the output of a particular industry) are given in the columns of the $(I-A)^{-1}$ matrix. The IMPLAN software calculates these multipliers for counties, states and other sub-state regions. These multipliers can be used to provide a sense of the economic importance of an industry or an economic activity in a given region. The multipliers impacts for gross state product, labor and capital income and the government revenue impacts are derived from the basic output multipliers given by $(I-A)^{-1}$.

The IMPLAN model uses historical relationships between public-sector revenues and regional economic output in order to estimate the public-sector revenue impact resulting from the establishment of a new, or expansion of an existing economic activity.

APPENDIX III:
THE WASHINGTON ECONOMICS GROUP, INC.
PROJECT TEAM AND QUALIFICATIONS



J. ANTONIO VILLAMIL
Founder and Principal Advisor

Tony Villamil is a nationally recognized economist, with over 30 years of successful career as a business economist, university educator and high-level policymaker for both federal and state governments. He has served as a Presidential appointee as US Undersecretary of Commerce for Economic Affairs, and he is the founder of a successful economic consulting practice, The Washington Economics Group, Inc. (WEG). Since August 2008, Tony is the Dean and Professor of Economics at the School of Business of St. Thomas University, while continuing to serve as Principal Advisor to the clients of WEG.

Dr. Villamil is a recent member of the President’s Advisory Committee on Trade Policy and Negotiations in Washington, DC. He is the immediate past Chairman of the Governor’s Council of Economic Advisors of Florida, and during 1999-2000, he directed the Tourism, International Trade and Economic Development Department of the State of Florida in the Office of Governor Jeb Bush. Presently, he is on the Board of Directors of the Spanish Broadcasting System (NASDAQ), Pan-American Life Insurance Group (PALIG) and Enterprise Florida – the State’s principal economic development organization. He was most recently appointed by the US Secretary of Commerce to serve in the Florida District Export Council.

Among professional and civic leadership positions, Tony is currently Chairman of the Economic Roundtable of the Beacon Council—Miami-Dade County’s official economic development organization. Dr. Villamil also serves as Senior Research Fellow and Vice Chair of the Council of Economic Advisors of Florida TaxWatch, an established fiscal and policy research organization of the State. Tony is a member of the Superintendent’s Business Advisory Council of Miami-Dade County Public School System, one of the largest school systems in the nation.

Dr. Villamil earned bachelor and advanced degrees in Economics from Louisiana State University (LSU), where he also completed coursework for the PhD degree. In 1991, Florida International University (FIU) awarded him a doctoral degree in Economics (hc), for “distinguished contributions to the Nation in the field of economics.” He frequently speaks to business, government and university audiences on economic topics, and was until the summer of 2008 a member of the Graduate Business Faculty of Florida International University in Miami, FL.



MARIELENA A. VILLAMIL
President and CEO

Marielena Villamil has an outstanding record of accomplishments in business consulting, higher education and civic leadership. Ms. Villamil is cofounder and serves as Chief Executive Officer of a growing economic and governmental advisor firm, The Washington Economics Group, Inc. (WEG). She founded the firm in 1993 with nationally recognized economist, Dr. Tony Villamil, former US Undersecretary of Commerce for Economic Affairs. Ms. Villamil has extensive and high level contacts in the corporate, public-sector and educational communities of Florida, Washington, DC and Latin America, in addition to significant experience in governmental relations, the management of economic consulting services and in the education and training of multicultural and multilingual workforces.

Currently, Ms. Villamil serves on multiple community boards. She sits on the District Board of Trustees of Miami-Dade College, appointed in 2006 by former Governor Jeb Bush and twice appointed by former Governor Charlie Crist, and confirmed by the Senate of the State of Florida. In May 2012, Ms. Villamil was appointed Chair of the South Florida Board of the Hispanic Scholarship Fund (HSF), a nationally recognized organization whose mission centers on awarding scholarships based on merit to Hispanic students. She was elected in December 2007 to serve on the Board of Directors of the Coral Gables Community Foundation whose mission is to promote programs and initiatives that enhance the quality of life for people living and working in the Coral Gables Community. Ms. Villamil is the recent past Chairman of the Board of Directors of the American Red Cross of Greater Miami and the Keys, where she has been a director since June of 2003. She also serves as Chair of the South Florida Humanitarian Network for Cuba, a network to coordinate humanitarian assistance. On July 8, 2009, she was elected to the National Board of Directors of the Cuban American National Council (CNC), a non-profit organization providing human services to persons in need from all racial and ethnic groups.

Among the numerous awards she has received are the first *Dr. Mario Villarroel International Leadership Award* in 2005 for her work with the Latin American communities, the *Southeast Service Area International Humanitarian Service Award* in 2007 “for exceptional humanitarian actions” and the *2008 Cynthia Wedel Award* for “superior and outstanding leadership services to the community.” Most recently, in 2012, Ms. Villamil was awarded the Good Scout Award by the Boy Scouts of America and the American Red Cross Spectrum Award for her service to the organization.

Ms. Villamil earned a Bachelor’s of Arts degree from St. Mary’s Dominican College in New Orleans, LA, and a Master’s Degree from Middlebury College in Vermont, and completed PhD coursework at the University of Miami in Coral Gables, FL. She currently resides in Coral Gables with her husband, Tony Villamil. She has two grown daughters and a son, TJ Villamil, a graduate student at the University of Florida.



Robert D. Cruz, Ph.D
Chief Economist, Miami-Dade County

Dr. Cruz was appointed to the position of Chief Economist on January 14, 2008. He is responsible for analyzing current economic conditions, economic trends, economic policies, and preparing economic impact studies and forecasts. His responsibilities also include providing policy recommendations on County programs and initiatives having significant socio-economic impacts.

Dr. Cruz is a recognized expert in quantitative economic analysis with particular specialization in regional economic development, macroeconomic forecasting, and modeling and simulation analysis. Prior to joining Miami-Dade County, he established a successful career spanning over twenty-five years as a university professor, academic researcher and economics consultant to private sector firms and public sector agencies. Dr. Cruz held the rank of full professor in the Andreas School of Business at Barry University, and was a full-time faculty member in the economics department at Florida International University for 11 years prior to joining the Barry University faculty.

Dr. Cruz received his PhD in Economics from the University of Pennsylvania in 1985, and his Bachelor of Arts degree from Georgetown University in 1978.



MARY SNOW
Managing Director of Client Services

Mary Snow is the Managing Director of Client Services at The Washington Economics Group, Inc. (WEG). She serves as WEG's client liaison, working with clients to facilitate their business interests and achieve their goals.

Prior to joining WEG, Mary was a governmental consultant for Robert M. Levy & Associates with offices in Miami and Tallahassee. She represented clients' interests at the local level and to the State Legislature.

Mary received her undergraduate degree in Political Science with a minor in Education from Florida State University. Mary is a resident of Coral Gables, Florida.



HAYDEE M. CARRION
Executive and Senior Research Assistant

Ms. Carrion has been Executive Assistant to Dr. Villamil since the firm's founding in 1993. Ms. Carrion is a specialist in multi-media presentations and in the preparation and design of reports and documents for clients.

She also is the Senior and Project Research Assistant and has extensive experience in the preparation of electronic data, presentation of quantitative information, Internet research and desktop publishing.

Haydee has been with WEG since 1993. Ms. Carrion holds AA and AS degrees in Business Administration and Office System Technologies from Miami-Dade College. Haydee is a resident of Miami-Dade County.

The Washington Economics Group, Inc. (WEG) has been successfully meeting client objectives since 1993 through economic consulting services for corporations, institutions and governments of the Americas. We have the expertise, high-level contacts, and business alliances to strengthen your competitive positioning in the growing marketplaces of Florida and Latin America.

Our roster of satisfied clients, over the past 19 years, includes multinational corporations, financial institutions, public entities, and non-profit associations expanding their operations in the Americas.

EXCLUSIVE CONSULTING APPROACH:

Each client is unique to us. We spend considerable time and effort in understanding the operations, goals, and objectives of clients as they seek our consulting and strategic advice. We are not a mass-production consulting entity nor do we accept every project that comes to us. We engage a limited number of clients each year that require customized consulting services in our premier areas of specialization. These premier and exclusive services are headed by former U.S. Under Secretary of Commerce, Dr. J. Antonio Villamil, with over 30 years of experience as a business executive and as a senior public official of the US and most recently of Florida.

PREMIER CONSULTING SERVICES:

Comprehensive Corporate Expansion Services

Our seamless and customized service includes site selection analysis, development of incentive strategies and community and governmental relations.

Economic Impact Studies

Highlight the importance of a client's activities in the generation of income, output and employment in the market area serviced by the entity. These studies are also utilized to analyze the impact of public policies on key factors that may affect a client's activities such as tax changes, zoning, environmental permits and others.

Strategic Business Development Services.

These services are customized to meet client objectives, with particular emphasis in the growing marketplaces of Florida, Mexico, Central and South America. Recent consulting assignments include customized marketing strategies, country risk assessments for investment decisions and corporate spokesperson activities and speeches on behalf of the client at public or private meetings.

For a full description of WEG capabilities and services, please visit our website at:

www.weg.com

The Washington Economics Group, Inc.
Representative Client List
1993-2012

Multinational Corporations

Ameritech International
Bureau Veritas (BIVAC)
Carrier
Esso Inter-America
FedEx Latin America
Genting Group
IBM
Joseph E. Seagram & Sons, Inc. (Vivendi)
KPMG
Lockheed Martin
Lucent Technologies
MasterCard International
MediaOne/AT&T
Medtronic
Merck Latin America
Microsoft Latin America
Motorola
Phelps Dodge
SBC Communications
Telefonica Data Systems
Visa International

Construction & Real Estate Development Firms

Areas USA, Inc.
Barron Collier Companies
Boca Developers
CDS International
Century Homebuilders
Codina Realty
Empire World Towers, LLC
Ferro Investment Group, LLC
Flagler Development
Inland Port Systems, LLC
LXR Luxury Resorts
Miami Asset Management Company, Inc.
Miapolis, LLC
Odebrecht Construction, Inc.
Palazzo Las Olas Group, LLC
The Allen Morris Company
The Related Group, Inc.
The Rouse Company
The St. Joe Company
Trammel Crow Company
WCI Development Companies

Engineering, Planning and Design Firms

AECOM (DMJM Harris)
Atkins (PBSJ)
CDM Smith (Wilbur Smith Associates)
Golder Associates
Kimley-Horn and Associates
Parsons Brincherhoff

Colleges and Universities

Alabama State University
Barry University
Embry-Riddle Aeronautical University
Florida Agricultural & Mechanical University
Florida International University
Full Sail University
Keiser University
Los Angeles Film School
Miami-Dade College
Rocky Mountain College of Art and Design
Sistema Universitario Ana G. Méndez
St. Thomas University
Universidad Politécnica de Puerto Rico
University of Florida
University of Miami
UM's Rosenstiel School of Marine and Atmospheric Science
University of South Florida/*ENLACE*

Law Firms

Becker & Poliakoff
Carlton Fields
Colson Hicks Eidson
DLA Piper
Dunbar & Dunbar
Gloria Roa Bodin, Esq
Greenberg Traurig, LLP
Holland & Knight, LLP
Steel Hector & Davis
Tew Cardenas, LLP

Other Florida-Based Companies

AmericanAirlines Arena
BMI Companies
CommunikatZ
Dosal Tobacco
Farm Stores
Fishkind & Associates
Florida Hospital
Florida Marlins
Florida Power & Light
Flo-Sun Sugar Corp.
Greater Ft. Lauderdale Alliance
Greater Miami Convention & Visitors Bureau
Homestead Miami Speedway
Iberia Tiles
International Speedway Corporation
Jungle Island
Mercy Hospital
Miami Dolphins
Resorts World Miami (RWM)
Ron Sachs Communications
Sprint of Florida

Financial Institutions

ABN-AMRO Bank
Advantage Capital
Allen & Company
BNP Paribas
Bank Atlantic Corp.
BankUnited, FSB
Banque Nationale de Paris
Barclays Bank
ESJ Capital Partners
Espirito Santo Bank
Fiduciary Trust International
First Union National Bank (Wells Fargo)
Hemisphere National Bank
HSBC/Marine Midland
International Bank of Miami (First United Bank)
Lazard Freres & Co.
Mercantil Commercebank N.A.
Pan American Life Insurance Group
PointeBank, N.A.
Seitlin Insurance
Sun Trust Corporation
The Equitable/AXA Advisors
Union Planters Bank of Florida (Regions)

Non-Florida-Based Corporations

Darlington Raceway
Georgia Retail Federation
Illinois Retail Merchant Association
Indiana Retail Council
Kansas Speedway
Martinsville Speedway
Progress Energy
Richmond International Raceway
Talladega Superspeedway
Washington Retail Association
Watkins Glen International

Latin America-Based Institutions

Allied-Domecq, Mexico
Association of Peruvian Banks
Federation of Inter-American Financial Institutions (FIBAFIN)
Fonalledas Enterprises, Puerto Rico
Mercantil Servicios Financieros, Venezuela
Peruvian Management Institute (IPAE)
The Brunetta Group of Argentina

The Biltmore Hotel/Seaway
The Heat Group
Ultra Musical Festival
Daytona International Speedway
Homestead-Miami Speedway
International Speedway Corporation

Public Institutions and Non-Profit Organizations

Baptist Health South Florida
City of Plantation
City of West Palm Beach
Economic Development Commission of Collier County
Economic Development Commission of Lee County
Economic Development Commission of Mid-Florida
Enterprise Florida, Inc.
Farm Share, Inc.
Flagler Development
Florida Bankers Association
Florida Citrus Mutual
Florida International Bankers Association
Florida League of Cities
Florida Nursing Homes Alliance
Florida Outdoor Advertising Association
Florida Ports Council
Florida Retail Association
Florida Sports Foundation
Inter-American Development Bank
Jackson Health Systems
Jacksonville Chamber of Commerce
Louisiana Committee for Economic Development
Miami Marine Stadium
Miami Museum of Science
Miami-Dade County Public Schools
Miami-Dade Expressway Authority
Port of Miami
SEUI Healthcare Florida
Space Florida
State of Florida
SW Florida Regional Chamber of Commerce
Sylvester Comprehensive Cancer Center
Tampa-Hillsborough Expressway Authority
The Beacon Council
The Florida Bar
The Florida Chamber Foundation
United Nations Economic Development Program
United Teachers of Dade
Visit Florida
Zoological Society of Florida
