Economic Contributions of the State University System of Florida in 2014-15

Sponsored Project Report to
The Board of Governors of the State University System of Florida

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Table of Contents

Executive Summary

The State University System (SUS) of Florida is one of the largest public university systems in the United States, consisting of 12 separate institutions and 30 campus branch locations across the state. It is important for policymakers to understand the economic contributions to society made by universities, for informed public policy and funding decisions. This report was commissioned by the Board of Governors of the State University System of Florida to provide an assessment of its economic contributions to the State. This analysis considered SUS spending for operations and capital investment by each university and their affiliated component units in fiscal year 2014-15, along with student spending and the increase in present value of equivalent lifetime (30 year) earnings generated by university graduates who were employed in Florida, above those reported for Florida high school graduates.

In 2014-15, the SUS had overall enrollment of 341,044 students, and awarded 83,017 academic degrees, including 62,210 bachelors, 16,263 masters, 2,253 doctoral, and 2,291 professional degrees.

The SUS of Florida employed 45,126 persons directly in 2014, not including temporary staff, student workers, and vacant positions.

Expenditures or revenues by all SUS-related entities totaled $47.34 billion in 2014-15, of which $34.85 billion represented new final demand generated by revenues from out-of-state sources.

The present value of increased lifetime (30 year) earnings by SUS graduates who remain in the State in comparison to high school graduates was estimated at $29.57 billion in 2014 dollars. Graduate salaries declined from the previous study for FY 2009-10 in inflation-adjusted terms.

Total economic contributions of SUS institution operating expenditures, capital outlays, student spending and graduate earnings differentials were estimated at 768,856 full-time and part-time jobs, $79.94 billion in industry output or revenues, and $49.25 billion in value added contribution to Gross Domestic Product in Florida (Table ES1). Value added included $31.52 billion in labor income to employees and business owners, $13.90 billion in other property income, and $3.83 billion in indirect business taxes to local, state and federal governments. About two-thirds of the output and value added contributions and over half (54%) of employment contributions were attributed to the SUS graduates earning differential.

The largest institution in terms of employment contributions was the University of Florida, with 219,481 fulltime and part-time jobs generated, followed by University of Central Florida (112,681 jobs), University of South Florida (108,798 jobs), Florida State University (84,160 jobs), and Florida International University (92,066 jobs) (Table ES1, Figure ES1).

Employment contributions of the SUS represented 7.1 percent of the total state workforce (10,791,031 jobs), and the total value added contributions represented 5.9 percent of the State's Gross Domestic product ($833.33 billion) in 2014.

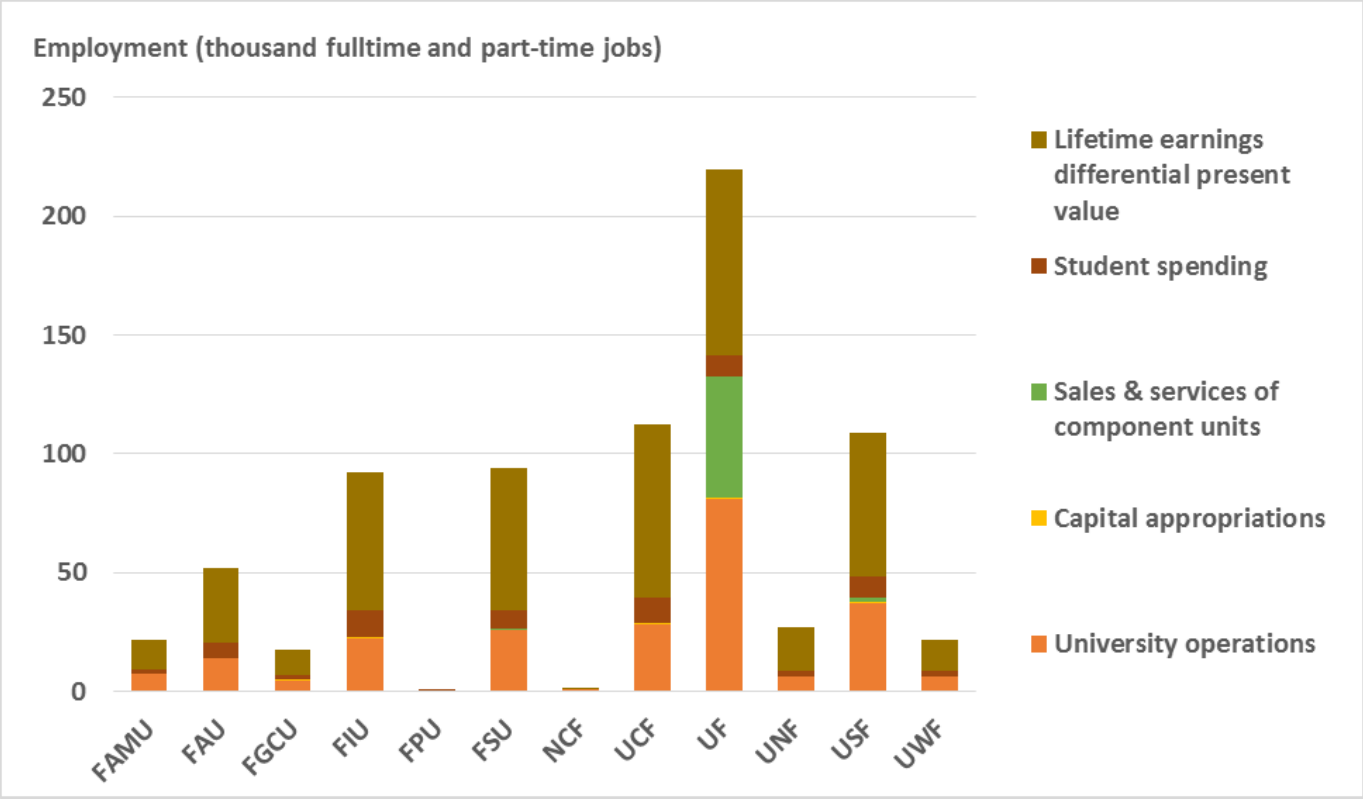
Overall value added and employment contributions estimated for 2014-15 were -11.3 percent and -0.3 percent lower, respectively, than for a previous study for 2009-10 by the same authors using consistent methods, due to reduced capital outlays and declining graduate earnings.

Table ES1. Summary of economic contributions of State University System of Florida, by activity and institution, 2014-15

Activity / Institution	Expenditures or Revenues	Industry Output	Value Added (GDP)	Employment (Fulltime, Part-time Jobs)
	Million Dollars			
Activity				
University operations	$10,470.7	$14,109.1	$10,339.2	235,180
Capital appropriations	201.5	467.0	223.6	2,974
Sales & Services of Component Units	2,928.8	7,173.1	4,193.3	52,741
Student spending	4,722.5	3,768.9	2,451.2	63,088
Lifetime Earnings Differential Present Value	29,017.0	54,429.2	32,044.3	414,943
SUS Institution				
Florida A&M University	$1,314.1	$2,177.1	$1,355.3	21,507
Florida Atlantic University	3,353.7	5,280.0	3,233.0	52,193
Florida Gulf Coast University	1,106.3	1,769.8	1,096.6	17,360
Florida International University	5,931.0	9,612.3	5,887.2	92,066
Florida Polytechnic University	34.1	28.5	21.7	547
Florida State University	6,008.6	9,937.3	6,106.1	94,160
New College of Florida	90.5	135.2	88.0	1,684
University of Central Florida	7,380.8	11,941.9	7,271.4	112,681
University of Florida	12,122.5	22,895.8	14,174.0	219,481
University of North Florida	1,746.5	2,853.3	1,739.9	26,927
University of South Florida	6,887.9	11,098.0	6,911.5	108,798
University of West Florida	1,359.7	2,207.2	1,361.5	21,452
Total All Activities and Institutions	$47,335.8	$79,936.3	$49,246.3	768,856

Values in million 2014 dollars. Contribution estimates include regional multiplier effects.
Sources: SUS-Board of Governors (revenues/expenditures); *IMPLAN* software and state data (contribution estimates).

Figure ES1. Summary of employment contributions of State University System of Florida institutions, 2014-15



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Introduction

The State University System (SUS) of Florida is one of the largest public university systems in the United States, consisting of 12 separate institutions and 30 campus branch locations across Florida (Figure 1, Table 1), with over 80 million square feet of building space, and 40,533 acres of land (SUS Quick Facts). The first institutions of higher education in Florida were established in the 1850's (Table 1). In academic year 2014-15, the SUS had overall enrollment of 341,044 students. In academic year 2013-14, the SUS awarded 83,017 academic degrees, including 62,210 bachelors, 16,263 masters, 2,253 doctoral, and 2,291 professional (specialist) degrees. The University system had over 45,000 permanent employees in 2014. The Florida SUS is consistently rated among the best values in higher education in the United States, offering a high quality educational experience at very low costs.

Figure 1. Map of locations of State University System of Florida institutions

Source: SUS Board of Governors.

Table 1. State University System of Florida campus locations and years established

Institution Name	Abbreviation	Florida City Location	Year Established
Florida A & M University	FAMU	Tallahassee	1887
Florida Atlantic University	FAU	Boca Raton	1961
Florida Gulf Coast University	FGCU	Ft. Myers	1991
Florida International University	FIU	Miami	1965
Florida Polytechnic Institute	FPU	Lakeland	2012
Florida State University	FSU	Tallahassee	1851
New College of Florida	NC	Sarasota	2001
University of Central Florida	UCF	Orlando	1968
University of Florida	UF	Gainesville	1853
University of North Florida	UNF	Jacksonville	1972
University of South Florida	USF	Tampa	1958
University of West Florida	UWF	Pensacola	1963

The education and skills that students attain at Florida's universities enhance and contribute substantially to the state's economy. The contributions to human capital provided by these institutions are increasingly important to the welfare of all citizens as the technological revolution makes increasingly complex demands for new ways of thinking and doing in the global economy. The accelerating pace of change presents new challenges that require a highly skilled workforce. Increasing numbers of highly trained engineers, scientists, mathematicians, and information system specialists are required to meet these challenges.

The SUS produces acclaimed advances in teaching, research and industry collaboration in a variety of fields. The number and quality of its graduates fulfill much of Florida's skilled workforce requirements, but presently the supply of graduates with relevant expertise does not meet intrastate, national or global demands. Such extant shortages are detrimental to the advancement of Florida's economy and hamper the state's advancement into global markets.

It is important for policymakers to understand the economic contributions to society made by universities in order to make informed public policy and funding decisions. This report was commissioned by the Board of Governors of the State University System of Florida to provide an assessment of the economic contributions to the State by the SUS. This analysis considered SUS spending for payroll, operations, and capital investment by each university and their affiliated component units in fiscal year 2014-15, along with the increase in net present value (NPV) of equivalent lifetime (30 year) earnings generated by university graduates who were employed in Florida, in

comparison to earnings reported for Florida high school graduates. This report updates a previous study for 2009-10 by the same authors, and following similar methods[1].

Methodology

Data Sources

The approach taken to this economic impact analysis was based on university expenditures. The methodology is a standard approach that has been used in previous economic impact research studies on higher education in Florida (Harrington *et al*., 2005, and Lynch *et al*., 2003). Expenditures for university operations, personnel payrolls, and capital improvements for fiscal year 2014-15 (ending June 30, 2015), were taken from the consolidated financial statements of the Board of Governors Annual Report for 2014, with supplemental detail provided by the Board of Governors financial staff. In addition to the primary university budgets, operating expenditures and direct employment were also included for component organizations, such as hospitals and faculty practices, direct support organizations such as athletic associations and research foundation, and other business enterprises. Expenditures by students at each university were estimated based upon "cost of attendance" data and student enrollment by level (undergraduate, graduate, and professional).

The economic contributions of increased earnings received by SUS graduates over their working lifetime, compared to Florida high school graduates were also estimated in this analysis. Data on employment and earnings for Florida SUS and high school graduates were obtained from the Florida Educational Training Placement Information Program *Outcomes Report* for Fall 2014 (FETPIP, 2014), which provides information for graduates in fiscal year 2013/14. Additional reports were used to analyze information for graduates in academic years 2011-12, 2012-13, and 2013-14. This information is based upon matching of Social Security numbers for graduates to employer and school databases, rather than surveys of graduates, to determine the number of graduates who are employed or in continuing education in Florida. Reported earnings for employed graduates in the fourth quarter can be expressed as annual equivalent earnings. The share of SUS graduates who leave the state workforce was taken from a report by the Office of Program Policy Analysis and Government Accountability (OPPAGA) of the Florida Legislature (2005), based on previous FETPIP outcomes reports. The reported earnings for Florida high school graduates were used as a baseline to compare the greater earnings of SUS graduates at each institution. The earnings differential for SUS graduates was projected over a 30-year period, representing a typical working lifetime.

The net present value of the average lifetime earnings differential was computed using the U.S. Census Bureau earnings estimation methodology. This present value was then expanded to reflect the total number of for 2013-14

[1] Economic Contributions of the State University System of Florida in Fiscal Year 2009-10. Sponsored project report to the State University System Board of Governors, March 8, 2012, available at http://www.fred.ifas.ufl.edu/pdf/economic-impact-analysis/SUS-of-Florida-FY-2009-10.pdf.

SUS graduates who were fully employed in the fall of 2014. This method assumes a median salary structure of employed Floridians (to educational attainment and age) rather than extrapolating graduate starting salaries from the previous five years' salaries in the labor force. The analysis does not calculate present value (PV) of future incomes, but instead uses a salary structure or matrix. An advantage of the method is that no assumptions are needed for pricing adjustments or discount rates to use. Also, it reduces potential bias concerning the FETPIP sample (e.g. a selection bias, where the top graduating students are more likely to get timely job offers at likely higher wages). It provides greater definition on age group cohorts: ages 25-34 years, 35-44 years, 45-54 years and 55-64 years. Estimates from previous research studies were used for further out-of-state adjustments for the Florida SUS graduates expected to be either employed outside Florida, self-employed, unemployed, stay-at-home parents, active in the military, incarcerated, or pursuing further education. The lifetime earnings methodology did not account for the opportunity costs to SUS graduates associated with attendance at other universities.

This study did not consider the economic contributions of visitor spending or technology licensing to spinoff companies for the SUS as a whole, as was done in a recent study for the University of Florida (Hodges *et al*., 2016).

Regional Economic Analysis

The total economic contributions of SUS-related spending was estimated with multipliers generated using a regional economic input-output model for the state of Florida constructed with the *IMPLAN* economic impact modeling system (IMPLAN Group, LLC, 2015). Input-output analysis is a widely used procedure for estimating economic contributions that is based on models of a regional economy that describe the specific mix of industries and institutions, and linkages between industries, employees, households, and governments (Miller and Blair, 2009). *IMPLAN* regional models account for industrial output, employment, value added, commodity production and consumption, personal income, household and institutional spending, domestic and foreign trade, marketing margins, business inventories, capital investment, taxes, and transfer payments such as welfare and retirement pensions. *IMPLAN* divides the regional economy into 536 business sectors defined according to the North American Industrial Classification System (NAICS), as well as consumption spending profiles for nine household income categories. *IMPLAN* and other regional input-output models enable the estimation of economic multipliers which capture the "ripple" effects of supply chain spending for input purchases (indirect effects), and household spending by employees (induced effects) for new final demand to the regional economy, as well as direct spending and employment. Economic multipliers for each business sector and household income category are used to estimate various economic contributions, including output or revenue, employment (fulltime and part-time jobs), value added (Gross Domestic Product), labor-income, other property income, and indirect business taxes. The *IMPLAN* economic multipliers and model parameters used in this analysis are shown in Appendix B.

For accurate regional economic contribution analysis, it is important to determine the source of revenues and the destination of expenditures in relation to the study region, in this case the State of Florida. Spending from revenues that originate outside the state represent new money that generates additional economic activity through ripple or multiplier effects. In comparison, spending funded by local revenues contributes only to direct effects, because

these dollars would have been used for other purchases anyway, and therefore do not represent net new economic activity (Watson, et al 2007). Conversely, spending on goods and services imported from outside the State represents a "leakage" of money, and generates no impacts for the State's economy. The share of spending inside of Florida was based on the State's average percentage of total purchases of each particular good or service. These shares are known as regional purchase coefficients, which were econometrically estimated by the *IMPLAN* software based on the balance of supply and demand in the State for each product or service. The total economic contributions of SUS spending funded by new dollars represent the sum of the direct, indirect and induced effects multipliers applied to the portion of that spending that occurs inside the State, while direct multipliers only were applied to SUS spending from local sources. The proportion of expenditures for SUS operations and payroll designated as new final demand was determined by the overall share of revenues originating from outside the State based on an analysis of the source of funds. All expenditures for capital improvement projects were treated as new final demand, by definition. Depreciation expenses on fixed assets were excluded from the analysis since they do not represent cash transactions that generate current local economic contributions. The proportion of nonlocal funding for student expenditures was determined by the aggregate sources of financial aid utilized by students for tuition and living expenses, and their home residence.

The economic contributions of spending by SUS employees was based upon typical household expenditure patterns for state public education workers. Student spending on tuition and on-campus housing was not included in the analysis since these dollars were captured by SUS revenues and spending. Sales by private vendors for campus food services, bookstores, and other concessions (auxiliary enterprises, educational departments) were <u>not</u> included in the economic contribution analysis since their activity is captured in the spending of employees and students. Retail margins were applied to purchases of goods at retail stores by students and employees. A glossary of input-output terminology and concepts is provided in Appendix C of the report.

Results

State University System Degree Production

The number of degrees awarded is important in terms of estimating the economic impacts of earnings by graduates on the State's economy. A total of 83,017 degrees were awarded by the Florida SUS during the 2013-14 academic year, with Bachelors degrees accounting for 62,210, or nearly 75 percent of all degrees, Masters degrees accounted for 16,263 (nearly 20% of all degrees awarded), and Professional and Doctoral degrees each accounted for about three percent of degrees awarded, as shown in Table 2. The number of degrees awarded by each SUS institution is summarized in Table 3. The University of Central Florida awarded the most of all degrees (15,193) and the highest number of Bachelors degrees (12,512), followed by the University of Florida (13,814), University of South Florida (12,276), Florida State University (11,808), and Florida International University (11,305).

The number of Florida SUS degrees awarded increased from 73,579 in 2009-10 to 83,017 in 2013-14, representing a 12.8 percent increase over this four-year period (Table 2). The number of SUS degrees awarded during this period increased by approximately 16.5 percent for Bachelors degrees, 1.9 percent for Masters degrees, 11.4 percent for Professional degrees, and 3.6 percent for Doctoral degrees. Over the past 30 years, the annual growth in the total number of SUS degrees awarded has averaged approximately 3.4 percent, much faster than the state's population growth rate of 1.9 percent.

Table 2. Degrees awarded by State University System of Florida institutions in academic years 2009-10 to 2013-14

Degree	2009-10	2010-11	2011-12	2012-13	2013-14
Bachelors	53,392	59,716	59,540	61,230	62,210
Masters	15,956	16,362	16,116	16,330	16,263
Professional	2,056	2,423	2,354	2,394	2,291
Doctorate	2,175	2,285	2,185	2,203	2,253
All Degrees	73,579	80,786	80,195	82,157	83,017

Professional degrees include Dentistry, Engineer, Law, Medicine, Pharmacy, Specialist and Veterinary Medicine.
Sources: Florida Department of Education, Florida Education and Training Placement Information Program (FETPIP); State University Reports, at http: //www.fldoe.org/fetpip/sus.asp. FETPIP data for FY 2006-07, FY2007-08, FY 2008-09, FY 2009-10 (http://www.fldoe.org/fetpip/), and earlier data for 1970-80 and 1998-99 taken from Lynch et al (2001).

Table 3. Degrees awarded by State University System of Florida institutions in academic year 2013-14

Institution	Bachelors	Masters	Professional	Doctorate	Total
Florida A&M University	1,528	234	284	40	2,086
Florida Atlantic University	5,115	1,248	26	69	6,458
Florida Gulf Coast University	1,900	296	0	34	2,230
Florida International University	8,228	2,711	233	133	11,305
Florida State University	9,289	1,879	416	224	11,808
New College of Florida	144	0	0	0	144
University of Central Florida	12,512	2,412	71	198	15,193
University of Florida	8,710	3,309	1,083	712	13,814
University of North Florida	3,264	512	0	38	3,814
University of South Florida	9,434	2,436	120	286	12,276
University of West Florida	1,928	597	21	23	2,569
Unknown*	158	629	37	496	1,320
Total	62,210	16,263	2,291	2,253	83,017
Percent	74.9%	19.6%	2.8%	2.7%	100.0%

*Unknown represents the differences between the known total of all degree graduate counts and the specific institution counts, i.e. where no further details are available to reconstruct and make an estimation of degrees.
Source: SUS Data Online, 2013-2014 degrees granted: http://www.flbog.edu/resources/iud/

Graduate Employment and Earnings

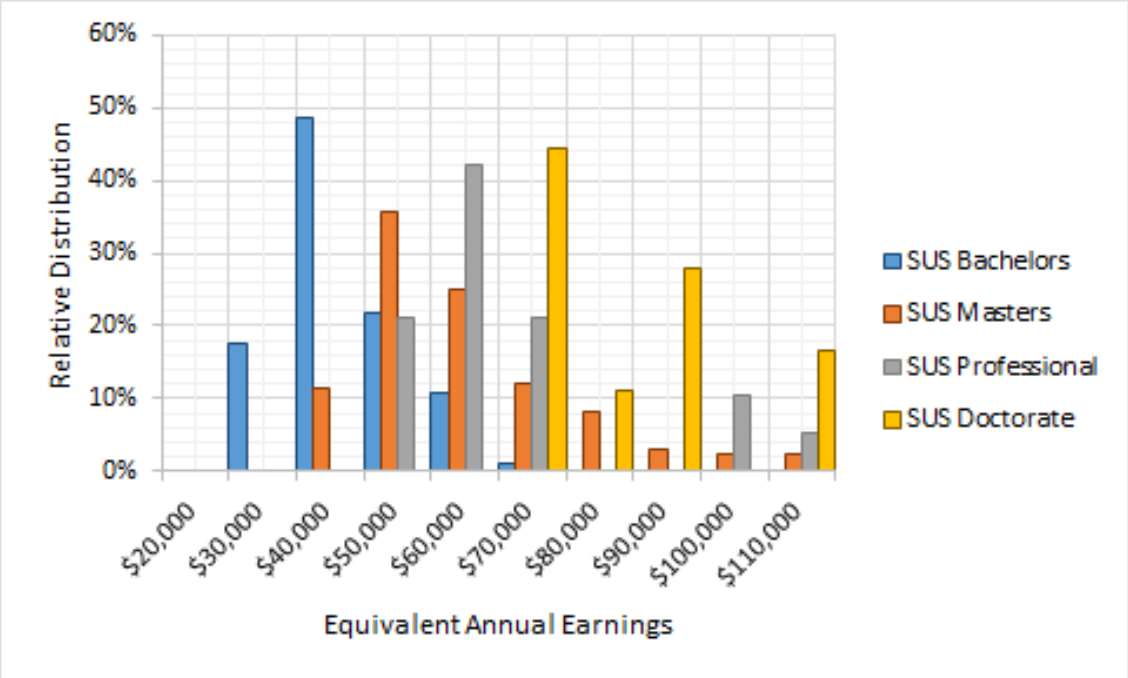
Average annual earnings and employment rates for Florida High School students and Florida SUS students graduating with Bachelors, Masters, Professional or Doctoral degrees in 2013-14 are summarized in Table 4. Average annual equivalent per-capita earnings for Florida SUS graduates in the fall of 2014 were $37,798 for graduates with Bachelors degrees, $55,641 for Masters degrees, $61,899 for Professional degrees and $81,816 for Doctoral degrees. These earnings were significantly higher than equivalent average earnings for students graduating with a High School diploma ($23,728). The average annual earnings differential for all SUS graduates compared to High School graduates was $21,351. The earnings differential was $14,070 for Bachelors degrees, $31,913 for Masters degrees, $38,171 for Professional degrees, and $58,088 for Doctoral degrees. The percentage of 2013-14 SUS graduates who found employment in the state in the fall of 2014 was approximately 62.7 percent, and of those, 79.4 percent were employed full-time. A comparison to High School data from 2013-14 shows that around 49.0 percent found employment in the same year, of which 13.3 percent were full-time. Figure 2 depicts the equivalent earnings distributions on the attained education levels.

Table 4. Annual average per capita earnings and earnings differentials for Florida high school and State University System graduates in 2013-14

Education level	Total individuals	Number found employed	Percent employed	Number employed fulltime	Percent employed fulltime	Equivalent annual earnings	Annual earnings differential
Public High School	125,107	61,330	49%	8,158	13%	$23,728	
State University System, Bachelors	62,210	39,868	64%	30,252	76%	$37,798	$14,070
State University System, Masters	16,263	9,854	61%	8,946	91%	$55,641	$31,913
State University System, Professional	2,291	1,347	59%	1,232	91%	$61,899	$38,171
State University System, Doctoral	2,253	962	43%	873	91%	$81,816	$58,088
State University System, All Degrees	83,017	52,031	63%	41,303	79%	$45,079	$21,351

Annual earnings differential compared to High School graduates in same year. All values in 2014 dollars.
Source: Annual Outcomes Report, Florida Education & Training Placement Information Program (FETPIP), Division of Accountability, Research and Measurement, Fall 2014 Data (Dec 2015), and Fall 2013 Data (Feb 2014), available at http://www.fldoe.org/fetpip/sus.asp. High School equivalent annual earnings is based on Fall 2014, data retrieved from: http://www.fldoe.org/accountability/fl-edu-training-placement-info-program/initial-quarterly-earnings.stml

Figure 2. Distribution of average annual per capita earnings for State University System of Florida graduates, 2013-14

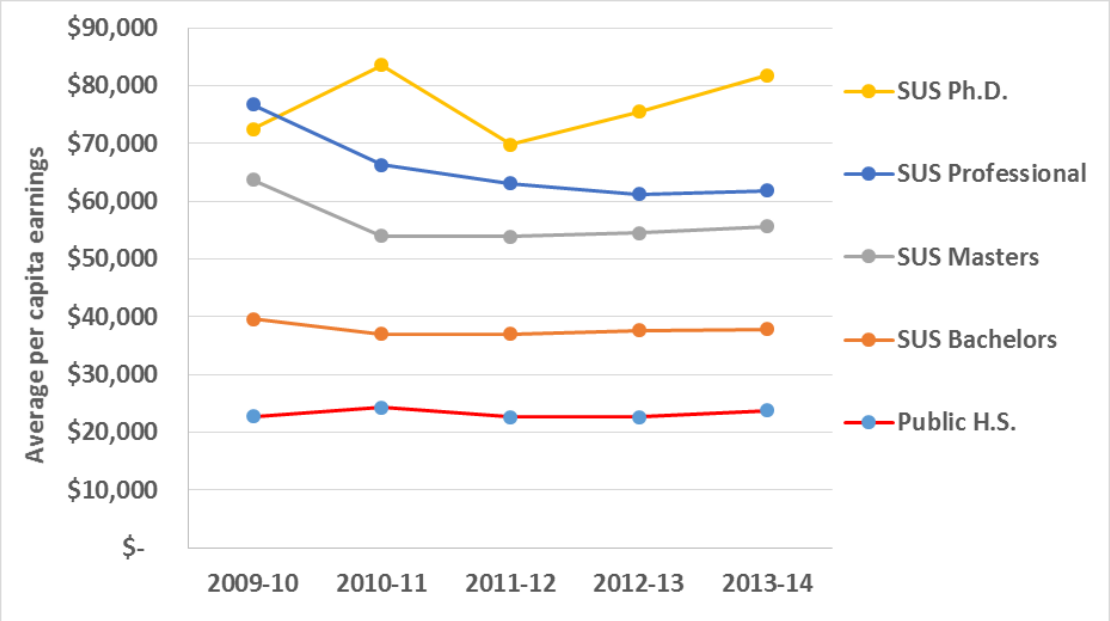


Inflation adjusted annual average earnings for new SUS graduates over the period 2009-10 to 2013-14 are shown in Figure 3. Earnings for graduates with Professional degrees declined from $76,774 in 2009-10 to $61,899 in 2013-14, or by 19.4 percent; earnings for Masters degrees declined from $63,727 to $55,641 (-12.7%); earnings for Bachelors degrees declined from $39,648 to $37,383 (5.7%). Earnings for Doctorates were more volatile but increased overall during the period from $72,461 in 2009-10 to $81,816 in 2013-14, or by 12.0 percent, but peaked

at $83,568 in 2010-11. Earnings for High School diploma recipients were rather stable over the four-year period, averaging $23,317. The decline in real earnings for most SUS graduates follows trends in the broad labor market.

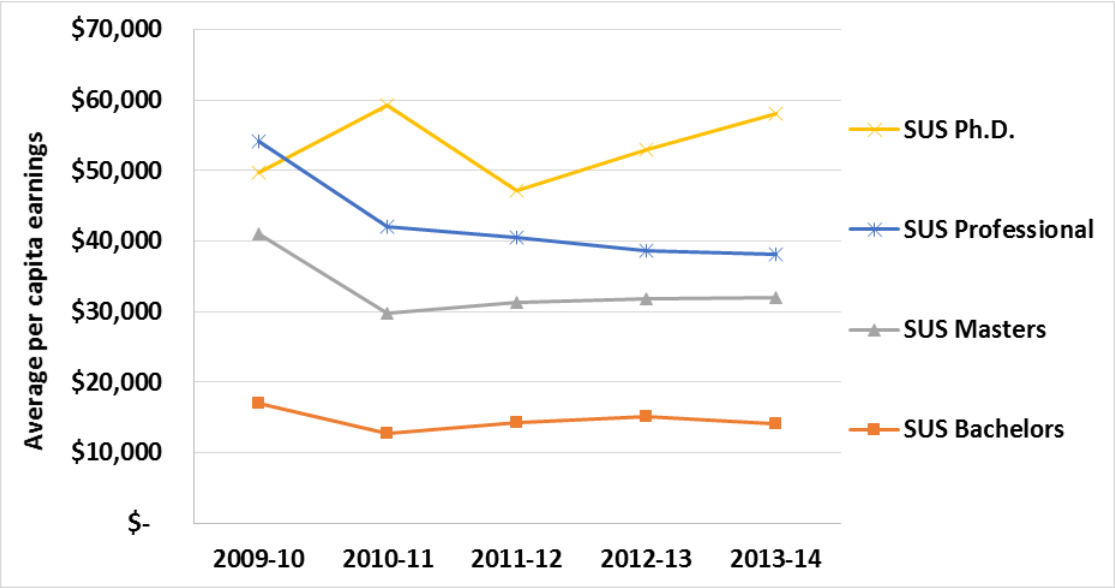
The differentials in average annual equivalent earnings between High School graduates and SUS graduates working fulltime are presented in Figure 4. Because the trend in High School graduate earnings was very stable, the differentials mirror the trends shown in Figure 3.

Figure 3. Trend in average annual per capita earnings for Florida public High School and State University System of Florida graduates, year 2009-10 to 2013-14



Values inflation-adjusted using price deflators from http://www.bls.gov/data/inflation_calculator.htm
Source: Florida Department of Education, Florida Education and Training Placement Information Program (FETPIP).

Figure 4. Trend in average annual per capita earnings differential for State University System of Florida graduates compared to public High School graduates, year 2009-10 to 2013-14



In order to evaluate the contributions of SUS graduates to the Florida economy, lifetime earnings were calculated for individuals based on median fulltime labor income earnings corresponding to educational attainment and age, as shown in Table 5. At the base of the table, the median income across age groups for each level of educational achievement is given as well. Estimates of SUS graduate lifetime earnings were made for a 30-year time horizon using U.S. Census wage information, double adjusted to educational attainment and age.

Table 5. Median annual incomes for high school and State University System graduates in Florida

Age (Years)	High School	Bachelors	Masters	Professional	Doctorate
25-34	$ 24,548	$ 39,627	$ 47,585	$ 56,912	$ 51,240
35-44	$ 22,256	$ 40,925	$ 51,099	$ 73,164	$ 58,307
45-54	$ 26,122	$ 46,705	$ 57,827	$ 86,557	$ 72,825
55-64	$ 27,525	$ 48,486	$ 59,829	$ 94,946	$ 81,132
Median	$ 25,335	$ 43,815	$ 54,463	$ 79,861	$ 65,566

Values in 2014 dollars. Annual earnings and Synthetic Work-life earnings are based on medians.
Sources: U.S. Census Bureau, American Community Survey, 2006-2008. U.S. Census Bureau, 2014 American Community Survey 1-Year Estimates. Median earnings in the past 12 months (in 2014 inflation-adjusted dollars) by sex by educational attainment for the population 25 years and over, retrieved from http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_14_5YR_B20004&prodType=table.

In order to account for the differential among graduates' income levels associated with varying degree programs, it was assumed that high school students enter the labor market at 18 years of age, bachelors recipients at 22 years, masters at 24 years and both doctoral and professional degree students, at 27.5 years of age. For each degree program, trend lines were estimated to derive the respective salaries at their year of graduation and in time intervals thereafter. Average incomes by age group and degree level are provided in Table 5. The projected incomes over a lifetime were broken-down in ten-year increments based on educational attainment as well as the lifetime income differential between high school graduates and college graduates at different levels of educational achievement. Over a 30-year period, an individual with e.g. a professional degree is projected to earn an average of about $1.56 million more than an individual with a high school degree. The individual lifetime earnings by degree program are provided in Table 6. It is projected that graduates in each degree category will continue to add value to Florida's economy by virtue of their lifetime earnings. It is estimated that the present value of lifetime earnings attributed to SUS graduates will total $53.3 billion over the next 30 years, or approximately $1.8 billion annually in 2014 dollars.

To measure the economic impact of SUS graduates who remain in Florida, data were taken from OPPAGA (2005) research estimates of expected in-state graduates, by degree. This involved additional adjustments for segments of Florida SUS graduates expected to be either employed outside Florida, self-employed, unemployed, stay-at-home parents, active in the military, incarcerated, or pursuing further education. Hence, it was estimated that the present

value of lifetime earnings attributed to SUS graduates totals $29.6 billion over the next 30 years, or approximately $985.7 million annually in 2014 dollars, as shown in Table 7.

Table 6. Average individual lifetime earnings for high school and State University System of Florida graduates, and differential with high school graduates

Degree	Estimated Lifetime Earnings Over Time		
	10 Years	20 Years	30 Years
High School	$ 220,680	$ 458,672	$ 709,222
SUS Bachelors	$ 377,640	$ 796,096	$ 1,245,305
SUS Masters	$ 469,563	$ 991,213	$ 1,552,725
SUS Professional	$ 627,554	$ 1,394,171	$ 2,269,741
SUS Doctorate	$ 537,281	$ 1,186,144	$ 1,922,429
Differential compared to high school graduates			
SUS Bachelors	$ 156,959	$ 337,424	$ 536,082
SUS Masters	$ 248,882	$ 532,541	$ 843,503
SUS Professional	$ 406,873	$ 935,499	$ 1,560,519
SUS Doctorate	$ 316,600	$ 727,471	$ 1,213,206

Table 7. Aggregate present value of estimated lifetime earnings differential for State University System of Florida graduate degrees compared to high school graduates in 2013-14, for all graduates and for SUS graduates employed in Florida

SUS Degree / Institution	All Graduates (M$)	Graduates Employed in Florida (M$)
All SUS degrees	$ 53,376	$ 29,570
Bachelors	$ 33,350	$ 19,343
Masters	$ 13,718	$ 7,270
Professional	$ 3,575	$ 2,109
Doctorate	$ 2,733	$ 847
Florida A&M University	$ 1,508	$ 856
Florida Atlantic University	$ 3,919	$ 2,198
Florida Gulf Coast University	$ 1,309	$ 736
Florida International University	$ 7,223	$ 4,035
Florida State University	$ 7,486	$ 4,195
New College of Florida	$ 77	$ 45
University of Central Florida	$ 9,093	$ 5,108
University of Florida	$ 10,014	$ 5,452
University of North Florida	$ 2,228	$ 1,258
University of South Florida	$ 7,646	$ 4,240
University of West Florida	$ 1,598	$ 894
Unknown*	$ 1,275	$ 551

Values in million dollars.
* Institutional values based on weighted average graduates to educational attainment and differentials.

State University System Employment

The Florida SUS had total direct employment of 45,126 fulltime and part-time positions in fiscal year 2014-15 (Table 8). Note that this does not include temporary staff, student workers, or 9,986 vacant positions that were counted in the previous report for fiscal 2009-10. Approximately 54 percent of these positions were paid annual salaries of $50,000 or higher, including 16 percent above $100,000. The largest institution was the University of Florida, with 13,332 jobs, representing 29.5 percent of the SUS total, followed by University of South Florida (6,499 jobs, 14.4%), Florida State University (6,374 jobs, 14.1%), Florida International University (5,002 jobs, 11.1%), and University of Central Florida (4,885 jobs, 10.8%). The total earnings for all SUS employees were $3.14 billion, including the University of Florida ($1.09 billion), University of South Florida ($434 million), and Florida State University ($395 million).

Table 8. Direct employment (fulltime and part-time jobs) by annual salary range for Florida State University System of Florida institutions in 2014-15

Institution	Annual Salary Range (thousand dollars)					Total Employees	Percent of Total Employees	Earnings (Million Dollars)
	$0-$35	$35-$50	$50-$75	$75-$100	Over $100			
Florida A & M University	342	457	493	205	195	1,692	3.7%	$101.7
Florida Atlantic University	414	739	766	394	379	2,692	6.0%	$180.3
Florida Gulf Coast University	188	428	375	159	124	1,274	2.8%	$77.8
Florida International University	922	1,272	1,258	739	811	5,002	11.0%	$345.7
Florida Polytechnic Institute	16	39	31	21	19	126	0.03%	$8.8
Florida State University	1,773	1,537	1,324	860	880	6,374	14.1%	$394.9
New College of Florida	92	62	61	44	10	269	0.06%	$14.2
University of Central Florida	1,007	1,187	1,318	656	717	4,885	10.8%	$322.3
University of Florida	2,515	3,319	2,792	1,654	3,052	13,332	29.5%	$1,089.1
University of North Florida	566	381	486	174	158	1,765	3.9%	$98.5
University of South Florida	1,164	1,662	1,761	962	950	6,499	14.4%	$434.4
University of West Florida	306	291	378	130	111	1,216	2.7%	$69.3
Total All	9,305	11,374	11,043	5,998	7,406	45,126	100%	$3,137.1

Source: SUS, Board of Governors

State University System Revenues

A consolidated statement of income and expenses for the State University System of Florida institutions in fiscal year 2014-15 is presented in Table 9. This statement includes sales and services by component units, auxiliary enterprises and educational departments associated with the SUS, but with internal transfers removed to avoid double-counting. For all SUS units, total operating revenues were $7.79 billion, total operating expenses were $10.94 billion, and net non-operating revenues were $3.31 billion. The largest institutions operating revenues were University of Florida ($3.93 billion), University of South Florida ($1.22 billion), Florida State University ($712 million), University of Central Florida ($559 million), and Florida International University ($555 million).

Combined operating and non-operating revenues for SUS institutions are summarized in Table 10. Total revenues from all sources amounted to $11.72 billion, including state appropriations ($2.50 billion), tuition and fees net of scholarship allowances ($1.85 billion), hospitals ($2.44 billion), federal grants and contracts ($970 million), federal and state scholarship grants ($727 million), sales and services of auxiliary enterprises ($755 million), sales and services of component units ($485 million), nongovernmental grants and contracts ($446 million), and gifts and donations ($306 million). The largest SUS institutions with the largest total revenues were the University of Florida ($5.05 billion), University of South Florida ($1.77 billion), Florida State University ($1.21 billion), University of Central Florida ($1.04 billion), and Florida International University ($950 million). Notably, the University of Florida had sales and services of $2.76 billion for component units (e.g. University Athletic Association, UF Foundation), auxiliary enterprises, educational departments, and Shands Hospital and Health Science Center affiliated faculty practice clinics.

The combined revenues to the SUS were analyzed in relation to sources of funds within the State of Florida versus outside the state, based on data and estimates provided by informants at University of Florida. Out-of-state revenues represent new final demand to the Florida economy, and were treated differently in the regional economic model. Federal grants and contracts were obviously 100 percent from out-of-state, while state operating and capital appropriations were 100 percent in-state. Hospital revenues from Medicaid, Medicare and private health insurance were determined to represent 96.4 percent of revenues from out-of-state, based on information from the Florida Agency for Health Care Administration, Florida Hospital Uniform Reporting System. Sales and services of component units and educational departments and tuition and fees received were allocated to out-of-state sources based on the proportion of nonresident students enrolled, which varied for each institute, and considered the higher tuition rates charged to nonresidents. Gifts and donations, capital grants, contracts and donations, and non-capital grants and donations were estimated by the UF Foundation to be 16 percent from out-of-state sources, and net investment income was estimated by UF Accounting and Finance as 75 percent out-of-state. Overall, 45.1 percent of all revenues were allocated to out-of-state sources. However, 32.5 percent of revenues were from out-of-state after excluding hospital revenues and capital appropriations and grants and donations, which were considered separately in this analysis, and this share of revenues was considered as the new final demand for purposes of economic contribution analysis.

Table 9. Statement of income and expenses for State University System of Florida institutions in 2014-15

Revenue / Expense Item	SUS Total	FAMU	FAU	FGCU	FIU	FPU	FSU	NC	UCF	UF	UNF	USF	UWF
							Million Dollars						
Operating Revenues													
Student Tuition & Fees	2,634.91	79.18	197.46	89.46	403.77	3.08	373.27	8.21	390.98	522.44	105.82	382.08	79.17
Less: Tuition Scholarship Allowances	-780.05	-34.53	-52.72	-29.01	-124.40	0.00	-121.40	-5.99	-105.40	-146.21	-31.99	-107.34	-21.07
Net Student Tuition & Fees	1,854.86	44.65	144.74	60.45	279.37	3.08	251.88	2.22	285.58	376.24	73.83	274.74	58.09
Federal Grants and Contracts	970.12	36.05	19.71	4.40	77.70	0.28	148.56	0.24	96.20	386.88	5.21	183.37	11.51
State and Local Grants and Contracts	130.78	5.76	12.09	2.07	9.66	0.04	21.19	0.03	6.49	44.64	2.40	22.43	3.97
Nongovernmental Grants and Contracts	445.73	2.69	10.26	3.33	12.45	0.01	8.41	1.54	18.14	196.85	2.23	189.83	0.00
Sales & Services of Educational Department	58.21	0.00	0.46	0.00	0.90	0.01	0.00	0.00	0.00	52.10	4.64	0.10	0.00
Sales & Services of Auxiliary Enterprise	755.43	34.23	55.66	38.39	104.02	0.69	157.71	6.33	69.46	126.09	28.70	128.14	6.01
Sales & Services of Component Units	484.72	0.00	28.79	0.00	6.18	0.00	14.36	0.00	0.00	133.35	0.75	296.84	4.46
Hospital Revenues	2,444.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,444.10	0.00	0.00	0.00
Royalties and Licensing Fees	43.43	0.00	0.17	0.00	0.12	0.00	15.07	0.00	0.00	25.64	0.00	2.43	0.00
Gifts and Donations	305.83	0.00	8.90	9.54	41.04	0.00	77.06	4.57	19.37	70.45	3.07	69.18	2.65
Interest on Loans Receivable	2.18	0.09	0.26	0.00	0.04	0.00	0.34	0.00	0.09	1.09	0.00	0.22	0.05
Other Operating Revenues	299.52	14.65	12.70	3.91	23.53	0.06	17.69	0.06	63.98	73.32	17.97	55.38	16.27
Total Operating Revenues	7,794.89	138.12	293.73	122.08	555.03	4.16	712.28	14.99	559.31	3,930.72	138.80	1,222.65	103.01
Operating Expenses													
Compensation & Employment Benefits	6,395.34	174.80	299.43	122.36	549.93	13.57	686.06	22.47	541.18	2,706.05	156.86	995.30	127.35
Service & Supplies	3,150.31	73.22	121.22	46.43	222.37	14.21	262.34	13.34	242.36	1,577.96	68.19	438.90	69.77
Utilities	229.43	13.16	15.72	6.33	17.25	0.99	39.47	1.55	24.03	67.73	9.57	28.21	5.43
Scholarships and Fellowships	552.70	22.96	51.57	18.21	80.56	3.78	83.48	1.03	87.87	83.86	16.75	84.38	18.25
Depreciation Expense	608.29	18.19	37.53	14.31	45.38	4.29	79.06	3.39	67.53	237.59	22.71	66.71	11.59
Self Insurance Claims and Expenses	4.54	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	1.55	0.00	2.95	0.00
Total Operating Expenses	10,940.62	302.32	525.48	207.64	915.52	36.84	1,150.41	41.77	962.98	4,674.75	274.07	1,616.44	232.39
Total Operating Income (Loss)	-3,145.72	-164.20	-231.74	-85.56	-360.50	-32.68	-438.13	-26.78	-403.67	-744.02	-135.27	-393.79	-129.38
Non-Operating Revenues (Expenses)													
State Appropriations	2,504.59	112.36	159.68	64.46	247.85	32.30	361.29	19.55	301.95	654.12	91.46	352.85	106.71
Federal and State Scholarship	727.21	32.05	56.04	27.73	110.81	0.64	91.58	3.17	135.26	115.76	30.11	100.56	23.51

Revenue / Expense Item	SUS Total	FAMU	FAU	FGCU	FIU	FPU	FSU	NC	UCF	UF	UNF	USF	UWF
							Million Dollars						
Grants													
Non Capital Grants, Donations	48.82	6.70	0.00	0.00	0.00	0.00	0.00	1.25	0.00	10.73	0.00	26.90	3.24
Investment Income	254.01	3.60	8.37	1.75	20.55	0.72	17.04	1.78	10.15	147.49	1.52	36.03	5.02
Less: Unrealized Gaines and Losses	-56.42	-0.33	-0.89	-0.42	-17.33	-0.28	-13.36	-0.93	-0.62	-8.47	4.38	-16.26	-1.93
Less: Investment Expenses	-14.27	0.00	0.00	0.00	-0.95	0.00	-0.09	0.00	-0.49	-12.42	0.00	0.00	-0.33
Net Investment Income	183.32	3.26	7.48	1.34	2.27	0.44	3.59	0.85	9.04	126.60	5.90	19.77	2.77
Other Non-Operating Revenue	124.04	0.00	19.40	3.44	22.38	0.09	12.58	0.01	8.15	48.38	12.74	-3.47	0.36
Gain/Loss on Disposal of Capital Assets	-12.46	0.00	-10.71	0.00	-0.89	0.00	-0.80	0.00	-0.92	7.19	-0.02	-6.28	-0.02
Interest on Asset-Related Debt	-119.76	-3.76	-17.00	-0.25	-9.53	-0.04	-9.49	-1.30	-19.96	-35.65	-8.30	-11.81	-2.67
Other Non-Operating Expenses	-146.58	-3.02	-2.21	-9.62	-0.23	-0.02	-3.12	-0.08	-13.43	-56.85	-4.18	-49.29	-4.54
Total Non-Operating Revenues (Expenses)	3,309.20	147.61	212.68	87.11	372.65	33.41	455.64	23.45	420.08	870.28	127.71	429.23	129.35
Income (Loss) Before Contributions													
Additions to Permanent Endowments	53.97	0.00	0.00	0.00	0.00	0.13	12.32	0.00	3.79	32.75	3.58	0.00	1.40
Capital Appropriations	201.47	17.11	5.11	10.82	3.29	0.00	11.91	4.75	19.97	54.22	16.01	43.84	14.42
Capital Grants, Contracts and Donations	77.34	0.28	17.22	2.25	8.90	6.80	4.04	0.56	0.38	31.94	0.92	3.15	0.89
Transfers from Primary Government	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00
Transfers To/From Other SUS Universities	2.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03	0.00
Change In Net Position	498.36	0.80	3.28	14.62	24.35	7.66	45.78	1.98	40.54	245.17	12.96	84.54	16.69

Institutions: Florida A & M University (FAMU), Florida Atlantic University (FAU), Florida Gulf Coast University (FGCU), Florida International University (FIU), Florida Polytechnic Institute (FPU), Florida State University (FSU), New College of Florida (NC), University of Central Florida (UCF), University of Florida (UF), University of North Florida (UNF), University of South Florida (USF), University of West Florida (UWF).

Row items less than $10,000 not shown.

Source: University Financial Statements, Board of Governors, Office of Budgeting and Fiscal Policy.

Table 10. Operating and non-operating revenues for State University System of Florida institutions in 2014-15

	SUS Total	FAMU	FAU	FGCU	FIU	FPU	FSU	NC	UCF	UF	UNF	USF	UWF
							Million Dollars						
Net Student Tuition & Fees	1,854.9	44.7	144.7	60.4	279.4	3.1	251.9	2.2	285.6	376.2	73.8	274.7	58.1
Federal Grants and Contracts	970.1	36.1	19.7	4.4	77.7	0.3	148.6	0.2	96.2	386.9	5.2	183.4	11.5
State and Local Grants and Contracts	130.8	5.8	12.1	2.1	9.7	0.0	21.2	0.0	6.5	44.6	2.4	22.4	4.0
Federal and State Scholarship Grants	727.2	32.1	56.0	27.7	110.8	0.6	91.6	3.2	135.3	115.8	30.1	100.6	23.5
Nongovernmental Grants and Contracts	445.7	2.7	10.3	3.3	12.5	0.0	8.4	1.5	18.1	196.8	2.2	189.8	0.0
Sales & Services of Educational Departments	58.2	0.0	0.5	0.0	0.9	0.0	0.0	0.0	0.0	52.1	4.6	0.1	0.0
Sales & Services of Auxiliary Enterprise	755.4	34.2	55.7	38.4	104.0	0.7	157.7	6.3	69.5	126.1	28.7	128.1	6.0
Sales & Services of Component Units	484.7	0.0	28.8	0.0	6.2	0.0	14.4	0.0	0.0	133.3	0.8	296.8	4.5
Hospital Revenues	2,444.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,444.1	0.0	0.0	0.0
Royalties and Licensing Fees	43.4	0.0	0.2	0.0	0.1	0.0	15.1	0.0	0.0	25.6	0.0	2.4	0.0
Other Operating Revenues	299.5	14.7	12.7	3.9	23.5	0.1	17.7	0.1	64.0	73.3	18.0	55.4	16.3
State Appropriations	2,504.6	112.4	159.7	64.5	247.8	32.3	361.3	19.6	301.9	654.1	91.5	352.9	106.7
Capital Appropriations	201.5	17.1	5.1	10.8	3.3	0.0	11.9	4.8	20.0	54.2	16.0	43.8	14.4
Capital Grants, Contracts and Donations	77.3	0.3	17.2	2.2	8.9	6.8	4.0	0.6	0.4	31.9	0.9	3.2	0.9
Non Capital Grants, Donations	48.8	6.7	0.0	0.0	0.0	0.0	0.0	1.3	0.0	10.7	0.0	26.9	3.2
Gifts and Donations	305.8	0.0	8.9	9.5	41.0	0.0	77.1	4.6	19.4	70.4	3.1	69.2	2.7
Interest on Loans Receivable	2.2	0.1	0.3	0.0	0.0	0.0	0.3	0.0	0.1	1.1	0.0	0.2	0.0
Net Investment Income	183.3	3.3	7.5	1.3	2.3	0.4	3.6	0.8	9.0	126.6	5.9	19.8	2.8
Other Non-Operating Revenue	124.0	0.0	19.4	3.4	22.4	0.1	12.6	0.0	8.1	48.4	12.7	-3.5	0.4
Additions to Permanent Endowments	54.0	0.0	0.0	0.0	0.0	0.1	12.3	0.0	3.8	32.7	3.6	0.0	1.4
Total Operating and Non-Operating Revenues	11,715.7	309.9	558.7	232.1	950.5	44.6	1,209.6	45.1	1,037.8	5,005.2	299.5	1,766.2	256.3
Total revenues from out-of-state	5,289.5	93.1	131.7	49.8	298.9	2.8	355.6	7.8	321.6	3,338.4	56.7	572.6	60.6
Percent of total applicable revenues	32.5%	31.8%	24.0%	22.6%	31.7%	4.4%	29.7%	19.3%	31.6%	39.5%	20.0%	33.3%	25.1%
Percent nonresident students		12.6%	6.4%	5.1%	10.2%	3.3%	11.6%	15.4%	5.9%	18.7%	3.8%	12.4%	15.4%
Percent tuition and fees by nonresidents		31.7%	20.7%	18.7%	28.5%	12.9%	26.8%	44.2%	20.3%	37.3%	10.9%	26.2%	31.5%

Institutions: Florida A & M University (FAMU), Florida Atlantic University (FAU), Florida Gulf Coast University (FGCU), Florida International University (FIU), Florida Polytechnic Institute (FPU), Florida State University (FSU), New College of Florida (NC), University of Central Florida (UCF), University of Florida (UF), University of North Florida (UNF), University of South Florida (USF), University of West Florida (UWF).
Source: University Financial Statements, Board of Governors, Office of Budgeting and Fiscal Policy.

University Operating Expenditures

Expenditures for State University System operations are summarized in Table 11. Total operating expenditures for all SUS institutions were $10.47 billion, including $5.21 billion for employee compensation (salaries and benefits), $1.41 billion for professional, technical and financial services, $2.62 billion for supplies, $341 million for utilities, $216 million for equipment, $94 million for property purchases, $173 million for transfers to other units, and $410 million for other miscellaneous expenses. A detailed listing of operating expenditures is provided in Appendix A, and a summary of expenditures or revenues by industry sector and *IMPLAN* model parameters is provided in Appendix B. SUS expenditures made within the state of Florida and allocated to out-of-state (exogenous) sources that represent new final demand for purposes of economic contribution analysis (see methods section) were estimated at $2.91 billion (lower panel of Table 11). Expenses for asset depreciation, real property purchases and certain transfers were excluded from the analysis because these are non-cash expenses that do not represent final demand.

Table 11. Operations expenditures by State University System of Florida institutions in 2014-15

SUS Institution	Employee Compen-sation	Services	Supplies	Utilities	Equipment	Property	Transfers	Other	Total
				Total Expenditures (Million Dollars)					
Florida A & M University	170.6	45.2	69.1	11.7	6.4	5.5	0.6	0.9	310.1
Florida Atlantic University	268.6	89.4	223.1	16.9	16.6	8.0	0.9	2.3	625.9
Florida Gulf Coast University	119.8	26.5	41.7	7.4	4.0	0.6	0.0	4.4	204.3
Florida International University	530.4	123.8	242.7	20.8	27.5	1.3	5.0	54.7	1,006.3
Florida Polytechnic Institute	12.0	8.3	3.7	0.9	2.7	0.7	0.1	2.8	31.2
Florida State University	659.8	170.8	225.1	75.6	29.1	33.7	9.8	8.2	1,212.1
New College of Florida	24.0	7.3	5.6	1.9	1.0	0.1	0.2	0.0	40.1
University of Central Florida	534.8	121.2	520.9	43.5	29.4	16.2	123.0	23.5	1,412.4
University of Florida	1,767.2	545.7	618.8	123.9	78.3	16.2	7.1	265.4	3,422.6
University of North Florida	152.2	20.8	58.4	9.5	2.9	2.0	11.9	14.3	272.0
University of South Florida	839.5	213.2	537.0	24.1	12.0	9.8	12.9	6.2	1,654.6
University of West Florida	130.6	40.3	69.3	4.3	5.8	0.0	1.3	27.5	279.1
Total All	5,209.6	1,412.5	2,615.5	340.6	215.6	94.0	172.7	410.2	10,470.7
				Expenditures In-State, Margined, Exogenous (Million Dollars)					
Florida A & M University	54.3	10.5	15.9	2.6	0.6	1.3	0.2	0.2	85.6
Florida Atlantic University	61.3	16.1	40.9	3.1	1.1	1.5	0.2	0.4	124.6
Florida Gulf Coast University	27.0	3.9	6.7	1.3	0.4	0.1		0.8	40.3
Florida International University	160.1	29.3	55.8	4.9	2.3	0.4	0.0	12.4	265.3
Florida Polytechnic Institute	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.1	1.1
Florida State University	188.1	33.3	47.0	16.7	2.3	8.4	2.0	2.0	299.9
New College of Florida	4.4	1.1	0.7	0.3	0.1	0.0	0.0	0.0	6.7
University of Central Florida	162.4	25.5	123.3	10.3	2.3	4.1	4.5	7.8	340.1
University of Florida	697.7	165.1	173.0	34.8	6.9	4.1	2.2	83.8	1,167.5
University of North Florida	29.0	3.0	8.1	1.5	0.1	0.4	1.9	2.3	46.3
University of South Florida	268.9	51.7	132.1	6.2	1.5	2.9	3.4	1.7	468.3
University of West Florida	32.8	7.5	12.7	0.8	0.3		0.3	5.5	59.8
Total All	1,686.5	347.3	616.4	82.5	17.9	23.1	14.9	116.9	2,905.4

Capital Improvement Expenditures

Capital improvement expenditures by SUS institutions in 2014-15 totaled $197 million, as shown in Table 12. The largest capital improvements were for the University of Florida ($54 million), University of South Florida ($44 million), and University of Central Florida ($20 million). Note that New College of Florida and Florida Polytechnic Institute (not listed) did not have any capital improvement expenditures.

Table 12. Capital improvement expenditures by State University System of Florida institutions in 2014-15

Institution	Million Dollars
Florida A &M University	17.1
Florida Atlantic University	5.1
Florida Gulf Coast University	10.8
Florida International University	3.3
Florida State University	11.9
University of Central Florida	20.0
University of Florida	54.2
University of North Florida	16.0
University of South Florida	43.8
University of West Florida	14.4
Total	196.7

Student Enrollment and Spending

Spending by students is an important dimension of the economic contributions of the State University System. Expenditure information was compiled separately for Florida resident and nonresident students, and students living on- or off-campus because these expenditures are treated differently. Enrollment in the SUS in the fall 2014 semester totaled 341,044, including 304,953 students (89.4%) who were Florida residents, and 36,091 students (10.6%) who were nonresidents (Table 13). The share of students who were nonresidents varied widely across campuses, and was highest for the University of Florida (18.7%). The number of students who resided in on-campus housing totaled 54,213, based on the number of beds available, which represented 15.9 percent of all students enrolled, but was much higher for Florida Polytechnic (99%), New College (76%), and Florida Gulf Coast University (33%).

The cost of attendance at SUS institutions for tuition and fees, books and supplies, room and board, transportation and other expenses are shown in Table 14. The total cost across all institutions averaged $21,362, and ranged from $20,342 to $23,240. Average costs for room and board ($10,113) represented 47.3 percent of total costs, followed by tuition and fees (28.5%), other expenses such as clothing and personal care items (11.5%), transportation (7.9%) and books and supplies (5.7%). These are considered typical costs for living either on- or off-campus, although costs for individual students may vary widely, and costs for room and board are lower for students living at home (average $3,347 vs. $10,113). It was assumed that 5 percent of students living off-campus resided at home. The tuition and fees represent costs for fulltime resident undergraduate students, but are significantly higher for nonresident and graduate or professional students.

Total student expenditures at SUS institutions are summarized in Table 15. For all students, total costs were estimated at $7.36 billion, including $2.80 billion (38.1%) for off-campus housing and food, $541 million (7.4%) for on-campus room and board, $2.09 billion (28.5%) for tuition and fees, $417 million (5.7%) for books and supplies, $638 million (8.7%) for transportation, and $863 million (11.7%) for other expenses. Spending by nonresident students, which represented new final demand to the State of Florida, amounted to $771 million or 10.5 percent of all student spending. Note that expenditures for tuition and fees and on-campus room and board were not considered in the economic contribution analysis to avoid double counting, because these dollars were accounted for in the University operating costs.

Table 13. Student enrollment in State University System of Florida institutions, by residency and living on-campus in fall 2014

SUS Institution	Total Enrollment	Florida Residents	Non-Residents	Percent non-resident	Number living on campus	Percent living on campus
Florida A & M University	10,233	8,947	1,286	12.6%	2,356	23.0%
Florida Atlantic University	30,381	28,438	1,943	6.4%	4,317	14.2%
Florida Gulf Coast University	14,463	13,728	735	5.1%	4,748	32.8%
Florida International University	54,099	48,592	5,507	10.2%	3,582	6.6%
Florida Polytechnic University	547	529	18	3.3%	543	99.3%
Florida State University	41,737	36,886	4,851	11.6%	6,370	15.3%
New College of Florida	835	706	129	15.4%	632	75.7%
University of Central Florida	60,821	57,232	3,589	5.9%	11,593	19.1%
University of Florida	50,536	41,075	9,461	18.7%	9,062	17.9%
University of North Florida	16,187	15,572	615	3.8%	3,507	21.7%
University of South Florida	48,578	42,561	6,017	12.4%	5,463	11.2%
University of West Florida	12,627	10,687	1,940	15.4%	2,040	16.2%
Total	341,044	304,953	36,091	10.6%	54,213	15.9%

Source: SUS-BOG, enrollment by residency: http://www.flbog.edu/resources/iud/

Table 14. Costs of attendance for full full-time undergraduate students at State University System of Florida institutions in 2014-15

SUS Institution	Tuition & Fees	Books & Supplies	Room & Board	Transpor-tation	Other Expenses	Total
Florida A & M University	$5,645	$1,138	$10,100	$1,214	$2,292	$20,389
Florida Atlantic University	$5,432	$1,240	$11,748	$1,974	$2,462	$22,856
Florida Gulf Coast University	$6,318	$1,200	$9,424	$1,700	$1,700	$20,342
Florida International University	$6,556	$1,462	$10,702	$2,064	$2,456	$23,240
Florida Polytechnic University	$4,940	$1,200	$11,800	$4,000		$21,940
Florida State University	$5,644	$1,000	$10,264	$1,572	$2,728	$21,208
New College of Florida	$6,968	$1,200	$8,932	$1,100	$2,170	$20,370
University of Central Florida	$5,980	$1,146	$9,764	$1,856	$3,088	$21,834
University of Florida	$6,310	$1,300	$9,650	$1,100	$2,230	$20,590
University of North Florida	$6,590	$1,200	$9,664	$1,036	$2,808	$21,298
University of South Florida	$6,410	$1,200	$9,400	$1,600	$2,500	$21,110
University of West Florida	$6,360	$1,200	$9,912	$1,100	$2,600	$21,172
Average (unweighted)	$6,096	$1,207	$10,113	$1,693	$2,458	$21,362

Room and board costs reflect on-campus living.

Table 15. Student expenditures at State University System of Florida institutions in 2014-15

SUS Institution	Tuition & Fees	Books & Supplies	Room & Board On Campus	Room & board off campus	Transpor-tation	Other Expenses	Total	Total Non-residents
				Million Dollars				
Florida A & M University	57.8	11.6	23.8	76.5	16.3	26.4	212.5	26.7
Florida Atlantic University	165.0	37.7	50.7	292.6	90.8	74.8	711.6	45.5
Florida Gulf Coast University	91.4	17.4	44.7	88.6	24.6	24.6	291.3	14.8
Florida International University	354.7	79.1	38.3	523.2	153.8	124.2	1,273.3	129.6
Florida Polytechnic University	2.7	0.7	6.4	0.0	2.2	0.0	12.0	0.4
Florida State University	235.6	41.7	65.4	353.9	65.6	113.9	876.1	101.8
New College of Florida	5.8	1.0	5.6	1.7	0.9	1.8	16.9	2.6
University of Central Florida	363.7	69.7	113.2	470.0	112.9	187.8	1,317.3	77.7
University of Florida	318.9	65.7	87.4	382.2	55.6	112.7	1,022.5	191.4
University of North Florida	106.7	19.4	33.9	118.2	16.6	45.5	340.3	12.9
University of South Florida	311.4	58.3	51.4	395.1	77.7	121.4	1,015.3	125.8
University of West Florida	80.3	15.2	20.2	101.7	21.3	29.7	268.3	41.2
Total	2,093.9	417.4	541.1	2,804.0	638.4	862.7	7,357.5	770.5

Economic Contributions

The total economic contributions of the State University System of Florida in 2014-15, including regional economic multiplier effects arising from supply chain activity (indirect effects) and employee household spending (induced effects) for new final demand generated by University operations, capital improvements, sales and services of component units, student spending, and present value of lifetime earnings differential of graduates, are summarized in Table 16. The total spending or revenues was estimated at $47.34 billion, of which $43.10 billion was spent in the State of Florida, and $34.85 billion was attributed to new final demand from out-of-state (exogenous) sources that represent new dollars to the Florida economy. As explained in the methods section, new final demand is applicable to the full regional economic multiplier effects (direct, indirect, induced), while spending or revenues from in-state sources are treated only as direct effects. The industry output contributions were estimated at $79.94 billion, representing the sales revenues received for goods and services sold to SUS institutions and employees of related businesses. Total employment contributions were estimated at 768,856 fulltime and part-time jobs, representing 7.1 percent of the Florida workforce in 2014. The total value added contribution of $49.25 billion represents the net value of total economic activity generated, and is equivalent to 5.9 percent of the State Gross Domestic Product (GDP). Labor income contributions of $31.52 billion represented wages, salaries and benefits received by employees and business owners. Other property income of $13.90 billion represented rents, royalties, interest payments dividends, and corporate profits. Business taxes of $3.83 billion included property, payroll, sales and other tax revenues generated for local, state, and federal government agencies in Florida, except personal income taxes. Note that these economic measures are independent and should not be summed together.

The largest contributions by individual institutions in the State University System of Florida were generated by the University of Florida with 219,481 jobs and $14.17 billion in value added, followed by University of Central Florida (112,681 jobs, $7.27 billion), University of South Florida (108,798 jobs, $6.91 billion), Florida State University (94,160 jobs, $6.11 billion) and Florida International University (92,066 jobs, $5.89 billion), as depicted in Figures 5 and 6.

Table 16. Summary of economic contributions of the State University System institutions and related entities, including the present value of lifetime graduate earnings differential in Florida in 2014-15

SUS Institution	Expense or Revenue	Expense / Revenue In-State	Expense / Revenue In-State, Exogenous	Industry Output (Revenue)	Value Added (GDP)	Labor Income	Property Income	Business Taxes	Employ-ment (Fulltime, Part-time Jobs)
	Million Dollars								
Florida A & M University	$1,314.1	$1,228.7	$969.5	$2,177.1	$1,355.3	$860.0	$388.8	$106.5	21,507
Florida Atlantic University	3,353.7	3,076.8	2,350.4	5,280.0	3,233.0	2,048.9	912.4	271.7	52,193
Florida Gulf Coast University	1,106.3	1,027.5	792.3	1,769.8	1,096.6	689.5	317.2	89.9	17,360
Florida International University	5,931.0	5,473.4	4,364.5	9,612.3	5,887.2	3,700.7	1,690.5	495.9	92,066
Florida Polytechnic Institute	34.1	26.4	1.2	28.5	21.7	17.7	3.6	0.4	547
Florida State University	6,008.6	5,612.1	4,552.9	9,937.3	6,106.1	3,820.3	1,784.0	501.8	94,160
New College of Florida	90.5	82.7	52.1	135.2	88.0	59.6	22.5	5.9	1,684
University of Central Florida	7,380.8	6,755.1	5,500.6	11,941.9	7,271.4	4,567.1	2,094.8	609.5	112,681
University of Florida	12,122.5	11,404.6	9,122.9	22,895.8	14,174.0	9,428.3	3,788.0	957.6	219,481
University of North Florida	1,746.5	1,636.0	1,325.3	2,853.3	1,739.9	1,085.2	508.0	146.8	26,927
University of South Florida	6,887.9	6,325.1	4,830.6	11,098.0	6,911.5	4,378.5	1,999.5	533.4	108,798
University of West Florida	1,359.7	1,262.2	986.0	2,207.2	1,361.5	864.1	387.5	109.9	21,452
Total	$47,335.8	$43,910.7	$34,848.4	$79,936.3	$49,246.3	$31,519.9	$13,897.0	$3,829.4	768,856

Estimates include regional multiplier effects.
Values expressed in 2014 dollars.
Source: *IMPLAN* economic model for the State of Florida (*IMPLAN* Group, LLC, 2015).

Figure 5. Employment contributions of State University System institutions in Florida in 2014-15

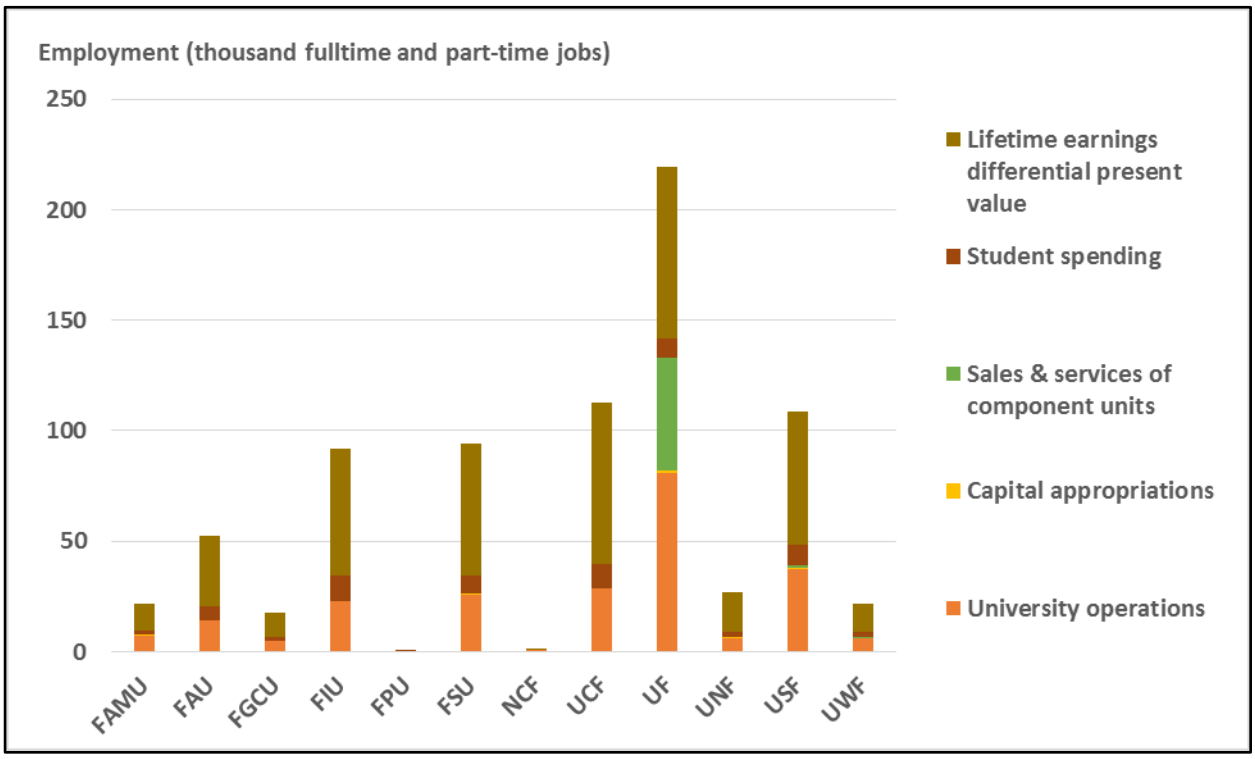
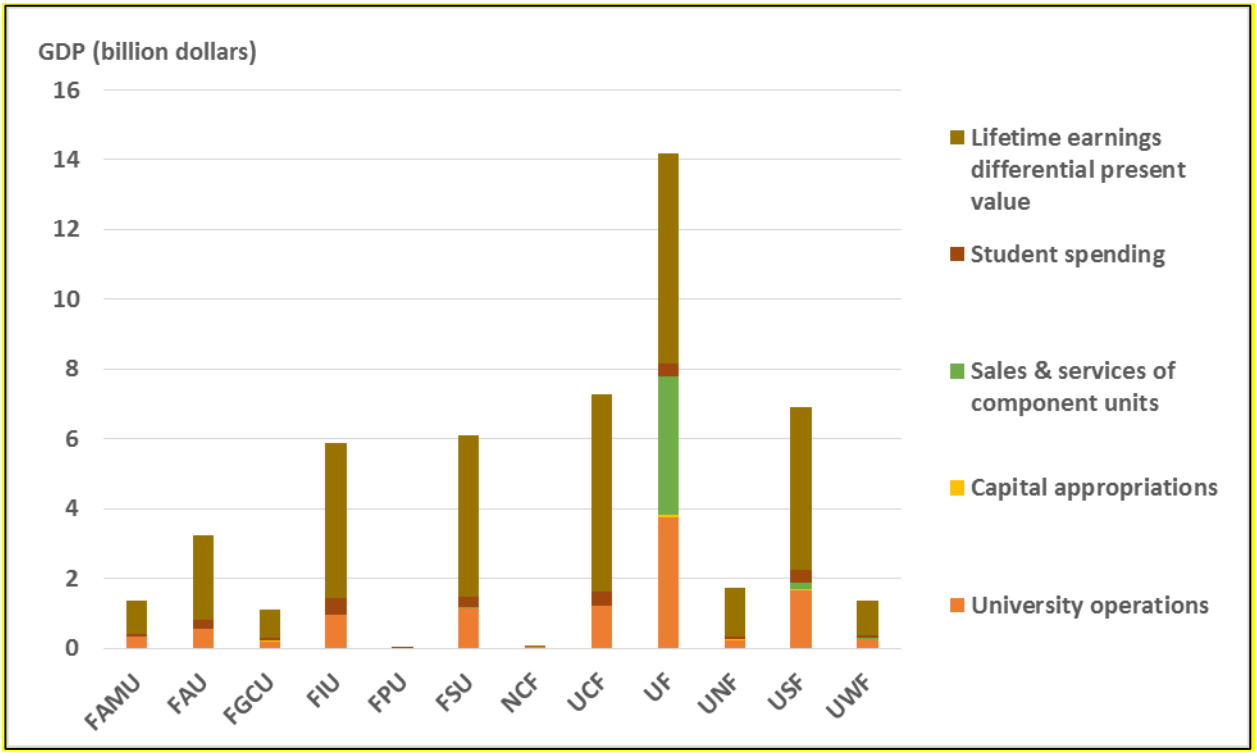


Figure 6. Value added (GDP) contributions of Florida SUS institutions in Florida in 2014-15



A large share of these total economic contributions were attributed to the increased lifetime earnings of State University System graduates remaining in Florida compared to high school graduates, reflecting the human capital generated by higher education. It was assumed that these increased earnings would be spent within the state according to typical patterns prevailing for the Florida labor force. Fiscal year 2013-14 was the latest available information on graduate earnings. The estimated value of the 30-year lifetime earnings differential for SUS graduates was $29.57 billion in present value (2014 dollar) terms (Table 7). The total economic contributions of increased SUS graduate earnings were estimated at 414,943 fulltime and part-time jobs (not including graduates themselves), $54.49 billion in industry output, $32.04 billion in value added (GDP), $18.70 billion in labor income, $10.47 billion in property income, and $2.87 billion in business taxes, as shown in Table 17. These contributions represented about two-thirds of total SUS industry output (68%) and value added (65%) contributions and over half (54%) of employment contributions.

Table 17. Economic contributions of present value of lifetime earnings differential of SUS institute graduates remaining in Florida (2013-14)

SUS Institution	Industry Output	Value Added (GDP)	Labor Income	Property Income	Business Taxes	Employment (Fulltime, Part-time Jobs)
	Million Dollars					
Florida A&M University	$1,605.7	$945.3	$551.8	$308.9	$84.6	12,241
Florida Atlantic University	4,122.9	2,427.3	1,416.8	793.3	217.2	31,431
Florida Gulf Coast University	1,380.6	812.8	474.4	265.6	72.7	10,525
Florida International University	7,568.7	4,456.0	2,601.0	1,456.2	398.8	57,701
Florida State University	7,868.8	4,632.7	2,704.1	1,514.0	414.6	59,989
New College of Florida	84.4	49.7	29.0	16.2	4.4	644
University of Central Florida	9,581.4	5,640.9	3,292.6	1,843.5	504.8	73,044
University of Florida	10,226.7	6,020.8	3,514.4	1,967.6	538.8	77,964
University of North Florida	2,359.7	1,389.2	810.9	454.0	124.3	17,989
University of South Florida	7,953.3	4,682.4	2,733.1	1,530.2	419.0	60,632
University of West Florida	1,676.9	987.3	576.3	322.6	88.4	12,784
Totals	$54,429.2	$32,044.3	$18,704.4	$10,472.2	$2,867.7	414,943

Florida Polytechnic University not included because no graduation data was available.
Estimates include regional multiplier effects. Values expressed in 2014 dollars.
Source: *IMPLAN* economic model for the State of Florida (*IMPLAN* Group, LLC, 2015).

Comparison to Economic Contributions in 2009-10

Total economic contributions of the Florida SUS were evaluated in a previous study for fiscal year 2009-10 using a similar methodology. Economic contributions in 2009-10 were estimated at $44.34 billion in gross expenditures or revenues, $79.91 billion in industry output, $51.90 billion in value added, and employment of 771,245 jobs. These values were adjusted for inflation to express in 2014 dollars for comparison to the present study results as shown in Table 18. Economic contributions in 2014-15 were slightly lower, by -0.2 percent for total expenditures/revenues and -0.3 percent for employment, and somewhat more significantly lower by -6.5 percent for industry output, -11.3 percent for value added. University and components unit operations spending/revenues were actually increased by 55 percent, and the resulting economic contributions grew by 76 to 87 percent, however, these increases were offset by lower capital outlays (-79%), student spending (-82%) and especially by declining graduate earnings and present value of graduate lifetime earnings differential (-12%). In some cases, nominal dollar values increased marginally, but deflated values were lower.

The different results for 2014-15 reflect changes in overall spending and revenues and graduate earnings, and to a lesser degree changes in methodologies and data sources used in the analysis. The analysis of University operations expenditures in 2014-15 was more conservative in that a lower share of University spending was considered new final demand from out-of-state sources, based on new information from University of Florida Finance and Accounting, and it was assumed that this applied to other SUS institutions. The number of direct employees in 2014-15 did not include vacant faculty and staff positions, which were included in the previous study. The method for calculating lifetime earnings of SUS graduates was modified from the previous study, using a dual age and educational attainment adjusted approach, resulting in lower estimates.

Table 18. Comparison of economic contributions of State University System institutions in Florida in 2009-10 and 2014-15

SUS Entity	Expenditures or Revenues	Industry Output	Value Added (GDP)	Employment (Fulltime, Part-time Jobs)
	Million Dollars			
Contributions in 2009-10 (Million 2010 dollars)				
University operations (incl. component units)	$4,768.8	$6,527.7	$4,258.3	53,519
University payroll	3,292.8	4,774.1	3,033.9	100,716
Capital outlays	883.4	2,356.3	1,325.3	19,752
Student spending	4,535.8	3,735.4	2,670.0	39,969
Present value graduate lifetime earnings differential	30,856.1	62,517.6	40,612.8	557,290
Total	$44,336.9	$79,911.1	$51,900.3	771,246
Contributions in 2014-15 (Million 2014 dollars)				
University operations (incl. payroll)	10,470.7	14,109.1	10,339.2	235,180
Sales & Services of Component Units and Hospitals	2,928.8	7,173.1	4,193.3	52,741
Capital outlays	201.5	467.0	223.6	2,974
Student spending	4,722.5	3,768.9	2,451.2	63,088
Present value graduate lifetime earnings differential	29,017.0	54,429.2	32,044.3	414,943
Grand Total	$47,340.5	$79,947.4	$49,251.6	768,926
Percent change 2009-10 to 2014-15 (inflation adjusted) *				
University operations, payroll, component units**	55.4%	76.0%	86.3%	86.7%
Capital outlays	-78.7%	-81.5%	-84.2%	-84.9%
Student spending	-2.7%	-5.7%	-14.2%	57.8%
Present value graduate lifetime earnings differential	-12.1%	-18.6%	-26.2%	-25.5%
Total	-0.2%	-6.5%	-11.3%	-0.3%

*Adjusted for inflation using the U.S. Gross Domestic Product Implicit Price Deflator (U.S. Commerce Department) indices for fourth quarter 2010 and 2014: values for 2009-10 multiplied by 1.070.
**University operations evaluated differently in the two study periods.

Conclusions

The State University System of Florida (SUS) is an important contributor to Florida's economy both directly and indirectly through spending for University operations and capital improvements and student living expenses, and also through increased earnings and spending by graduates who remain in the state. In 2014-15 the total economic contributions of all SUS-related entities were estimated at $79.93 billion in output or revenues, $49.25 billion in value added (GDP), and 769,000 jobs. This included significant contributions attributed to the projected earnings differentials by SUS graduates over a 30-year work-life. When compared to high school graduates, the average annual earnings differential for all SUS graduates was $21,351, and ranged from $14,640 for those with a Bachelors degree to $58,088 for a Doctoral degree. The present value of aggregate lifetime earnings over a 30-year period for those graduates remaining employed in the state totaled $29.57 billion.

It should be noted that the economic contributions of visitor spending and technology licensing were not evaluated in this study, but may be significant, as presented in a recent study for the University of Florida (Hodges et al, 2016). It is recommended that the Board of Governors of the State University System track this information for future studies.

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Appendix A. Detailed Operating Expenditures by Category for the State University System of Florida, 2014-15

Expenditure Category / Item (items less than $10,000 not shown)	Expenditure	Expenditure In-State, Margined	Expenditure In-State, Margined, Exogenous
		Million Dollars	
Employee Compensation	**5,209.58**	**5,082.39**	**1,686.48**
Faculty	1,596.01	1,596.01	552.22
Administrative and professional	635.10	508.08	152.61
Personal services-salary and wages	633.03	633.03	201.04
Other - university authorized	565.26	565.26	218.80
State health-employer's contributions	422.98	422.98	133.16
University support and professional service	291.20	291.20	87.33
Temporary employment	272.53	272.53	86.60
Social security	193.60	193.60	60.96
Graduate assistants	170.93	170.93	58.41
State retirement	127.14	127.14	40.50
Part-time academic employment	95.61	95.61	30.92
Optional retirement plan-employer contribution	77.25	77.25	24.42
Student assistants	54.54	54.54	17.53
Student or graduate assistants	17.89	17.89	5.14
Workers' compensation insurance	12.86	12.86	3.99
Public employees’ optional retirement plan	11.28	11.28	3.64
Other	9.57	9.57	2.41
Pretax administrative assessments	7.09	7.09	2.31
State financial assistance	3.12	3.12	0.66
State life-employer's contributions	3.07	3.07	0.99
Ops state health-employer's contribution	2.99	2.99	0.85
State awards to state employees-nontaxable	1.69	1.69	0.56
Nonresident alien scholarship nonqualified	1.03	1.03	0.31
Unemployment compensation benefits	0.77	0.77	0.22
Qualified payments to third parties	0.62	0.62	0.17
Qualified moving payments to employees	0.52	0.52	0.14
Nonqualified moving payments to employees	0.48	0.37	0.14
IFAS supplemental retirement	0.37	0.37	0.15
Nonresident alien independent contractor-foreign source	0.23	0.18	0.06
Seasonal employment	0.21	0.21	0.04
U.S. civil service health insurance	0.19	0.19	0.07
U.S. civil service retirement	0.15	0.15	0.06
Employee/volunteer reimbursement other than travel	0.09	0.09	0.03
State disability-employer's contributions	0.07	0.07	0.02
Nonresident alien independent contractor-taxable	0.05	0.04	0.01
Other pension and benefits	0.04	0.04	0.01
Workers' compensation benefits	0.02	0.02	0.01
Services	**1,412.50**	**1,032.66**	**347.27**
Independent contractor-not otherwise classified	322.48	257.99	88.74
Personal services-other	203.97	183.57	69.35

Expenditure Category / Item (items less than $10,000 not shown)	Expenditure	Expenditure In-State, Margined	Expenditure In-State, Margined, Exogenous
		Million Dollars	
Repairs & maintenance	74.37	74.37	26.95
Travel -out of state -other	67.29		
Consulting services	64.76	51.81	17.05
Repairs and maintenance-contracted services	63.55	50.84	14.85
Research services	52.41	32.32	9.91
Information technology services	50.11	38.84	12.53
Interest	42.08	26.66	8.58
Travel - in state - other	42.04	29.43	9.41
Other advertising services	29.65	23.72	7.89
Current charges and obligations	29.20	23.36	7.77
Foreign travel - other	28.85		
Engineering services	25.53	22.94	7.33
Printing and reproduction	23.46	5.72	1.87
Insurance contributions	22.62	14.95	4.90
Promotional advertising	22.14	17.72	5.58
Application software (licenses)	19.71	5.23	1.80
Other insurance	19.08	12.61	4.38
Dues	18.84	12.60	3.99
Food services	15.67	14.10	3.75
Training services	14.87	11.90	3.86
Construction services	14.72	14.72	4.68
Interest on late payment of invoices	14.58	9.24	2.75
Custodial and janitorial services	13.50	10.80	2.85
Other non-operating	12.01	9.61	2.84
Subscriptions	10.31	2.88	0.91
Legal fees and attorneys' services	9.51	8.56	2.76
Postage	8.86	6.17	2.03
Entertainment services	8.52	6.79	2.11
Accounting services	8.49	7.64	1.89
Temporary employment services	7.07	5.65	1.71
Medical services	5.74	5.45	1.68
General liability insurance	4.99	3.30	0.83
Freight	4.42	3.37	1.12
Registration fee with no travel expenses	3.66	2.45	0.73
Care and subsistence - medical services	3.50	3.15	0.91
Communications/freight other	3.37	2.57	0.86
Banking services	2.57	1.63	0.57
Lawn care, grounds keeping & landscaping services	2.46	1.97	0.64
Employee moving expense	2.35	1.79	0.66
Architectural services	2.13	1.91	0.52
Security services	2.01	1.60	0.49
Automobile fleet insurance	1.98	1.31	0.28
Royalties	1.75	1.40	0.54
Information technology communications	1.50	0.37	0.11

Expenditure Category / Item (items less than $10,000 not shown)	Expenditure	Expenditure In-State, Margined	Expenditure In-State, Margined, Exogenous
		Million Dollars	
Fire fund insurance	1.22	0.81	0.23
Employment advertising & job opportunity announcements	1.06	0.85	0.25
Human resource services	0.98	0.98	0.31
Legal and official advertisements	0.96	0.86	0.27
Current charges - other services	0.90	0.72	0.23
Civil rights insurance	0.79	0.52	0.16
Mailing and delivery services	0.77	0.62	0.19
Other materials and supplies-training	0.69	0.55	0.13
Care and subsistence - other vendor services	0.53	0.48	0.15
Public service notices & announcements	0.34	0.27	0.09
Investigative services	0.27	0.22	0.07
Examination and testing services	0.27	0.21	0.06
In-state travel-class A&B meals	0.15	0.13	0.04
Linen and laundry services	0.14	0.13	0.05
Per diem - foreign travel	0.12		
Out of state travel-class A&B meals	0.12		
Airfare foreign travel-training	0.09		
Surety bonds	0.08	0.05	0.02
Training facilities	0.08	0.06	0.01
Personal services - independent contractors	0.06	0.06	0.01
Fiscal agents & other fees	0.06	0.05	0.02
Airfare - in state travel	0.04	0.02	0.01
Medical-training property	0.03	0.03	0.01
Travel advances	0.03	0.03	0.01
Care and subsistence	0.02	0.02	0.01
Airfare - out of state travel	0.02		
Hotel - out of state travel	0.02		
Client benefits and allowances	0.01	0.01	0.00
Furniture and equipment-training	0.01	0.01	0.00
In state travel-training	0.01	0.01	0.00
Subscriptions-training	0.01	0.01	0.00
Care and subsistence - transition services	0.01	0.01	0.00
Office supplies consumable-training	0.01	0.00	0.00
Books and other library resources-training	-0.01	-0.01	0.00
Other training	-0.10	-0.08	-0.02
Supplies	**2,615.50**	**1,907.09**	**616.41**
Educational aids	1,903.34	1,522.67	493.33
Educational aids - needs based	246.90	197.52	61.98
Other material and supplies	108.06	48.45	17.46
Books and other library resources	65.58	14.78	4.70
Purchases for resale	62.01	9.74	3.24
Educational supplies	45.14	36.11	11.09
Food products	35.62	9.28	3.07
Repairs and maintenance-commodities	33.39	33.39	10.64

Expenditure Category / Item (items less than $10,000 not shown)	Expenditure	Expenditure In-State, Margined	Expenditure In-State, Margined, Exogenous
		Million Dollars	
Information technology supplies	30.00	7.46	2.16
Office supplies consumable	18.66	8.37	2.66
Building & construction material	16.94	5.57	1.81
Medical supplies	11.63	1.83	0.63
Janitorial & household supplies	7.65	6.12	1.80
Acetylene, butane & other gas	7.42	2.71	0.91
Parts and fittings	6.64	1.04	0.32
Bedding and other textiles	6.51	0.59	0.17
Gasoline	3.93	0.37	0.11
Other fluids	2.40	0.05	0.02
Agricultural supplies	1.96	0.65	0.21
Fuel oil	0.77	0.01	0.01
Propane	0.41	0.15	0.04
Office supplies non-consumable	0.19	0.08	0.03
Diesel fuel	0.15	0.00	0.00
Educational-training supplies	0.15	0.12	0.03
Supplies and commodities	0.06	0.02	0.01
Information technology supplies-training	0.01	0.01	0.00
Lubricants	0.01	0.00	0.00
Utilities	**340.61**	**250.53**	**82.51**
Utilities-electricity	176.75	146.61	46.89
Utilities-other	54.75	31.10	11.81
Telephone	42.71	24.26	7.45
Utilities-water and sewerage	40.56	34.04	11.43
Utilities-natural gas	14.63	5.40	1.70
Utilities-garbage collection	7.25	5.80	1.90
Utilities-steam	3.96	3.32	1.31
Equipment	**215.58**	**55.21**	**17.88**
Furniture and equipment	130.23	22.84	7.77
Information technology equipment	44.20	9.74	2.99
Other furniture and equipment	6.75	1.18	0.33
Cellular telephones	6.24	3.55	1.18
Other rented equipment	5.74	4.59	1.56
Vehicle rental	4.40	3.96	1.18
Motor vehicles-passenger	3.92	0.72	0.22
Motor vehicles-other	3.72	0.69	0.25
Office equipment rental	2.89	2.31	0.74
Building and fixed equipment	2.70	2.16	0.62
Copy equipment rental	2.30	1.84	0.53
Information technology equip rental	1.69	1.35	0.43
Minor tools	0.41	0.03	0.01
Cellular telephones rental	0.14	0.08	0.03
Pager	0.12	0.07	0.03
Machinery rental	0.06	0.04	0.01

Expenditure Category / Item (items less than $10,000 not shown)	Expenditure	Expenditure In-State, Margined	Expenditure In-State, Margined, Exogenous
		Million Dollars	
Training equipment rental	0.05	0.04	0.01
Postage equipment rental	0.02	0.02	0.01
Property	**94.03**	**74.54**	**23.12**
Principal	46.94	29.74	9.77
Educational property	42.58	42.58	12.74
Land	1.86		
Other structures and improvements	1.66	1.66	0.42
Medical property	0.71	0.51	0.18
Other real property	0.20		
Educational-training property	0.06	0.04	0.01
Agricultural property	0.02		
Modular building structures	0.02	0.00	0.00
Transfers	**172.67**	**49.45**	**14.85**
Distribution and transfers	105.19		
From non-governmental entities	59.76	47.81	14.40
From other state agencies	6.24	0.16	0.05
From other governmental units	1.47	1.47	0.40
From department of management services	0.01	0.01	0.00
Other	**410.21**	**328.87**	**116.87**
Other cur charges-other	411.09	328.87	116.87
Perquisites	0.47		
Not coded by object	-1.35		

Appendix B. *IMPLAN* Industry Sector Expenditures or Revenues, Model Parameters and Regional Multipliers for the State University System of Florida, 2014-15

IMPLAN Industry Sector (sorted in order of expenditure/revenue)	Expenditure or Revenue (Million Dollars)	Trade Margin	Regional Purchase Coefficient	Share from out-of-state (exogenous)	Output Total Effects Multiplier ($/$)	Employment Total Effects Multiplier (jobs/M$)
Household income ($50-75K annually)	29,017.00	100.0%	100.0%	100.0%	1.88	14.3
Employment and payroll of state government education	4,570.63	100.0%	100.0%	39.5%	2.83	30.5
Other accommodations	2,803.98	100.0%	80.0%	100.0%	2.91	33.6
Hospitals	2,444.10	100.0%	100.0%	96.4%	2.84	21.0
Other educational services	2,223.48	100.0%	80.0%	39.5%	2.84	37.5
Retail - Miscellaneous store retailers	989.62	47.2%	95.0%	100.0%	2.98	40.5
Transit and ground passenger transportation	638.41	100.0%	66.4%	100.0%	2.75	27.6
Office administrative services	635.10	100.0%	80.0%	33.3%	2.92	31.2
Grantmaking, giving, and social advocacy organizations	484.72	100.0%	66.9%	18.7%	2.69	19.2
Book publishers	483.01	100.0%	22.5%	100.0%	2.60	14.8
Business support services	441.97	100.0%	80.0%	39.5%	2.86	33.0
Facilities support services	322.76	100.0%	80.0%	39.5%	2.78	19.5
Construction of new educational and vocational structures	258.77	100.0%	100.0%	100.0%	2.32	14.8
Other personal services	204.03	100.0%	90.0%	39.5%	2.98	53.9
Electric power transmission and distribution	176.75	100.0%	82.9%	39.5%	2.98	12.5
Institutional furniture manufacturing	136.98	100.0%	17.5%	39.5%	2.40	15.7
Maintenance and repair construction of nonresidential structures	109.42	100.0%	100.0%	39.5%	2.60	18.6
Monetary authorities and depository credit intermediation	106.24	100.0%	63.4%	39.5%	2.86	19.7
Wired telecommunications carriers	97.45	100.0%	56.8%	39.5%	2.64	14.2
Services to buildings	87.39	100.0%	80.0%	39.5%	2.78	44.3
Wholesale trade	80.27	17.3%	90.8%	39.5%	2.90	18.8
Management consulting services	64.76	100.0%	80.0%	39.5%	2.93	24.0
Management of companies and enterprises	59.76	100.0%	80.0%	39.5%	2.89	18.9
Scientific research and development services	52.41	100.0%	61.7%	31.8%	2.97	19.5
Advertising, public relations, and related services	52.13	100.0%	80.0%	39.5%	2.76	18.4
Insurance carriers	50.69	100.0%	66.1%	39.5%	2.84	16.1
Other computer related services, including facilities management	50.11	100.0%	77.5%	39.5%	2.89	20.8
Water, sewage and other systems	44.52	100.0%	83.9%	39.5%	3.02	18.8
Electronic computer manufacturing	44.20	100.0%	22.0%	39.5%	2.28	8.5
Travel arrangement and reservation services	42.04	100.0%	70.0%	39.5%	2.84	19.9
Retail - Food and beverage stores	35.62	27.7%	94.1%	39.5%	2.90	30.2
Computer terminals and other computer peripheral equipment manufacturing	30.00	100.0%	24.9%	39.5%	2.36	10.2
Architectural, engineering, and related services	27.66	100.0%	89.8%	39.5%	2.95	22.6
Printing	23.46	100.0%	24.4%	39.5%	2.48	18.3
Business and professional associations	22.50	100.0%	66.9%	39.5%	2.72	18.4
Software publishers	19.71	100.0%	26.5%	39.5%	2.67	15.6
Retail - Building material and garden equipment and supplies stores	18.97	34.6%	95.0%	39.5%	2.92	25.3
All other food and drinking places	15.67	100.0%	90.0%	31.8%	2.75	35.7
Natural gas distribution	14.63	100.0%	36.9%	39.5%	2.38	11.7

IMPLAN Industry Sector (sorted in order of expenditure/revenue)	Expenditure or Revenue (Million Dollars)	Trade Margin	Regional Purchase Coefficient	Share from out-of-state (exogenous)	Output Total Effects Multiplier ($/$)	Employment Total Effects Multiplier (jobs/M$)
Commercial and industrial machinery and equipment rental and leasing	12.75	100.0%	80.0%	39.5%	2.83	17.8
Truck transportation	10.61	100.0%	76.3%	39.5%	2.57	18.9
Legal services	10.47	100.0%	90.0%	39.5%	2.91	20.8
Periodical publishers	10.31	100.0%	27.9%	39.5%	2.68	16.6
Postal service	8.86	100.0%	69.7%	39.5%	2.97	26.4
Accounting, tax preparation, bookkeeping, and payroll services	8.55	100.0%	90.0%	39.5%	2.84	24.7
Other amusement and recreation industries	8.52	100.0%	79.8%	39.5%	2.77	28.7
Employment services	8.13	100.0%	80.0%	33.3%	2.82	29.5
Industrial gas manufacturing	7.82	100.0%	36.6%	39.5%	2.41	10.0
Retail - Motor vehicle and parts dealers	7.64	19.4%	95.0%	39.5%	2.90	22.8
Waste management and remediation services	7.25	100.0%	80.0%	39.5%	2.68	17.6
Textile and fabric finishing mills	6.51	100.0%	9.0%	39.5%	2.19	12.4
Wireless telecommunications carriers (except satellite)	6.51	100.0%	56.8%	39.5%	2.75	12.6
Other state government enterprises	6.24	100.0%	2.6%	31.7%	0.00	0.0
Offices of physicians	5.74	100.0%	95.0%	39.5%	2.93	22.0
Automotive equipment rental and leasing	4.40	100.0%	90.0%	33.3%	2.77	17.5
Nursing and community care facilities	4.06	100.0%	89.9%	31.8%	2.86	30.5
Retail - Gasoline stores	3.93	11.6%	81.8%	39.5%	2.94	28.2
Private households	3.77	100.0%	100.0%	39.5%	2.90	67.3
Petroleum refineries	3.32	100.0%	1.9%	39.5%	1.95	5.9
Landscape and horticultural services	2.46	100.0%	80.0%	33.3%	2.66	33.1
Investigation and security services	2.28	100.0%	80.0%	33.3%	2.86	35.4
Lessors of nonfinancial intangible assets	1.75	100.0%	80.0%	39.5%	2.73	14.2
Internet publishing and broadcasting and web search portals	1.50	100.0%	24.9%	33.3%	2.83	15.6
Employment and payroll of state government, non-education	1.48	100.0%	100.0%	31.8%	2.83	26.1
Surgical and medical instrument manufacturing	0.71	100.0%	72.1%	39.5%	2.68	14.4
Hand tool manufacturing	0.41	100.0%	7.8%	39.5%	2.40	14.7
Employment and payroll of federal government, military	0.34	100.0%	100.0%	39.5%	2.70	19.8
Full-service restaurants	0.15	100.0%	90.0%	31.8%	2.75	34.6
Dry-cleaning and laundry services	0.14	100.0%	90.0%	39.5%	2.79	30.1
Air transportation	0.04	100.0%	46.2%	31.8%	2.37	13.2
Prefabricated wood building manufacturing	0.02	100.0%	0.0%	39.5%	2.43	16.0
Hotels and motels, including casino hotels	0.00	100.0%	80.0%	31.8%	2.85	23.5
Specialized design services	0.00	100.0%	80.0%	19.3%	2.84	28.6

Appendix C: Glossary of Regional Economic Analysis Terms

Employee compensation is comprised of wages, salaries, commissions, and benefits such as health and life insurance, retirement and other forms of cash or non-cash compensation.

Employment is a measure of the number of jobs involved, including fulltime, part-time and seasonal positions. It is not a measure of fulltime equivalents (FTE).

Exports are sales of goods to customers outside the region in which they are produced, which represents a net inflow of money to the region. This also applies to sales of services to customers visiting from other regions.

Final Demand represents sales to final consumers, including households and governments, and exports from the region.

Gross Regional Product is a measure of total economic activity in a region, or total income generated by all goods and services. It represents the sum of total value added by all industries in that region, and is equivalent to Gross Domestic Product for the nation.

IMPLAN is a computer-based input-output modeling system that enables users to create regional economic models and multipliers for any region consisting of one or more counties or states in the U.S. The current version of the *IMPLAN* software, version 3, accounts for commodity production and consumption for 440 industry sectors, 10 household income levels, taxes to local/state and federal governments, capital investment, imports and exports, transfer payments, and business inventories. Regional datasets for individual counties or states are purchased separately.

Impact or total impact is the change in total regional economic activity (e.g. output or employment) resulting from a change in final demand, direct industry output, or direct employment, estimated based on regional economic multipliers.

Imports are purchases of goods and services originating outside the region of analysis.

Income is the money earned within the region from production and sales. Total income includes labor income such as wages, salaries, employee benefits and business proprietor income, plus other property income.

Indirect business taxes are taxes paid to governments by individuals or businesses for property, excise and sales taxes but do not include income taxes.

Input-Output (I-O) model and Social Accounting Matrix (SAM) is a representation of the transactions between industry sectors within a region that captures what each sector purchases from every other sector in order to produce its output of goods or services. Using such a model, flows of economic activity associated with any change in spending may be traced backwards through the supply chain.

Intermediate sales are sales to other industrial sectors. The value of intermediate sales is netted-out of Total Value Added.

Local refers to good and services that are sourced from within the region, which may be defined as a county, multi-county cluster, or state. Non-local refers to economic activity originating outside the region.

Margins represent the portion of the purchaser price accruing to the retailer, wholesaler, and producer/manufacturer, in the supply chain. Typically, only the retail margins of many goods purchased by consumers accrue to the local region, as the wholesaler, shipper, and manufacturer often lie outside the local area.

Multipliers capture the total effects, both direct and secondary, in a given region, generally as a ratio of the total change in economic activity in the region relative to the direct change**.** Multipliers are derived from an I-O model of the regional economy. Multipliers may be expressed as ratios of sales, income, or employment, or as ratios of total income or employment changes relative to direct sales. Multipliers express the degree of interdependency between sectors in a region's economy and therefore vary considerably across regions and sectors. A **sector-specific multiplier** gives the total changes to the economy associated with a unit change in output or employment in a given sector (i.e. the **direct economic effect)** being evaluated. **Indirect effects multipliers** 39 represent the changes in sales, income, or employment within the region in backward-linked industries supplying goods and services to businesses (e.g., increased sales in input supply firms resulting from more nursery industry sales). **Induced effects multipliers** represent the increased sales within the region from household spending of the income earned in the direct and supporting industries for housing, utilities, food, etc. An **imputed multiplier** is calculated as the ratio of the total impact divided by direct effect for any given measure (e.g. output, employment).

Other property income represents income received from investments, such as corporate dividends, royalties, property rentals, or interest on loans.

Output is the dollar value of a good or service produced or sold, and is equivalent to sales revenues plus changes in business inventories.

Output-consumption ratio is the total industry output divided by the apparent consumption, for any given commodity or industry, and is a measure of the degree to which local demands are met by local production.

Producer prices are the prices paid for goods at the factory or point of production. For manufactured goods the purchaser price equals the producer price plus a retail margin, a wholesale margin, and a transportation margin. For services, the producer and purchaser prices are equivalent.

Proprietor income is income received by non-incorporated private business owners or self-employed individuals.

Purchaser prices are the prices paid by the final consumer of a good or service.

Region defines the geographic area for which impacts are estimated, usually an aggregation of several counties defined on the basis of worker commuting patterns.

Sector is an individual industry or group of industries that produce similar products or services, or have similar production processes. Sectors are classified according to the North American Industrial Classification System (NAICS).

Value Added is a broad measure of income, representing the sum of employee compensation, proprietor income, other property income, indirect business taxes and capital consumption (depreciation). Value added is the basis for calculation of Gross Domestic Product, and is a commonly used measure of the contribution an industry to regional economy because it avoids double counting of intermediate sales.