

Economic Contributions of the University of Florida and Related Entities in 2014-15

Sponsored Project Report to the University of Florida Office of University Relations

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May 26, 2016



Aerial view of the historic University of Florida campus in Gainesville, Florida

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Executive Summary

The University of Florida (UF) is one of the largest public universities in the United States, and has operations throughout the state. The economic contributions of UF and related entities to the State of Florida and Alachua County, Florida were estimated for fiscal year 2014-15 using data on employment, revenues and expenditures associated with University operations, capital outlays, healthcare services, Direct Support Organizations, student spending, campus visitor spending, and technology licensing companies, together with regional economic models that capture the direct and indirect/induced multiplier effects of this economic activity. Economic contribution estimates are summarized in Table ES1 and Figure ES1.

In 2014-15, UF and its component units received total revenues of \$5.01 billion from all sources, of which 66.7 percent were from sources outside the state that represent new final demand. Total expenditures amounted to \$6.70 billion, including \$5.87 billion in spending within the State of Florida, of which \$3.84 billion was attributable to sources outside the state.

UF entities had direct employment of 41,013 jobs, and total employment contributions of 135,576 fulltime and part-time jobs in Florida including regional multiplier effects, which represented 1.26 percent of the state workforce in 2014.

The total industry output or revenue contributions were estimated at \$12.56 billion, including \$3.85 billion for UF operations, \$4.61 billion for healthcare services by hospitals and clinics, \$2.27 billion for technology licensing companies located in the State, \$505 million for capital outlays, \$794 million for student spending, \$271 million from visitors to campus academic, cultural and athletic venues and events, and \$260 million for Direct Support Organizations.

Total value added contributions of \$7.83 billion represented 0.94 percent of the Gross Domestic Product (GDP) of Florida in 2014. Labor income contributions to employee compensation and proprietor income amounted to \$5.33 billion, and business tax contributions to local, state, and federal governments were \$442 million.

Since a previous study for fiscal year 2009-10 using similar data sources and methods, economic contributions by UF and related entities in 2014-15 increased by 13.8 percent in employment, 11.9 percent in industry output, and 17.3 percent in value added, in inflation-adjusted terms.

Economic contributions of UF in Alachua County, Florida, where the main campus is located, were estimated at 93,927 jobs, \$5.99 billion in industry output, and \$4.21 billion in value added. These contributions represented 59 percent of total county employment, and 36 percent of county GDP in 2014, and 69 and 54 percent, respectively, of the statewide employment and value added contributions of UF.

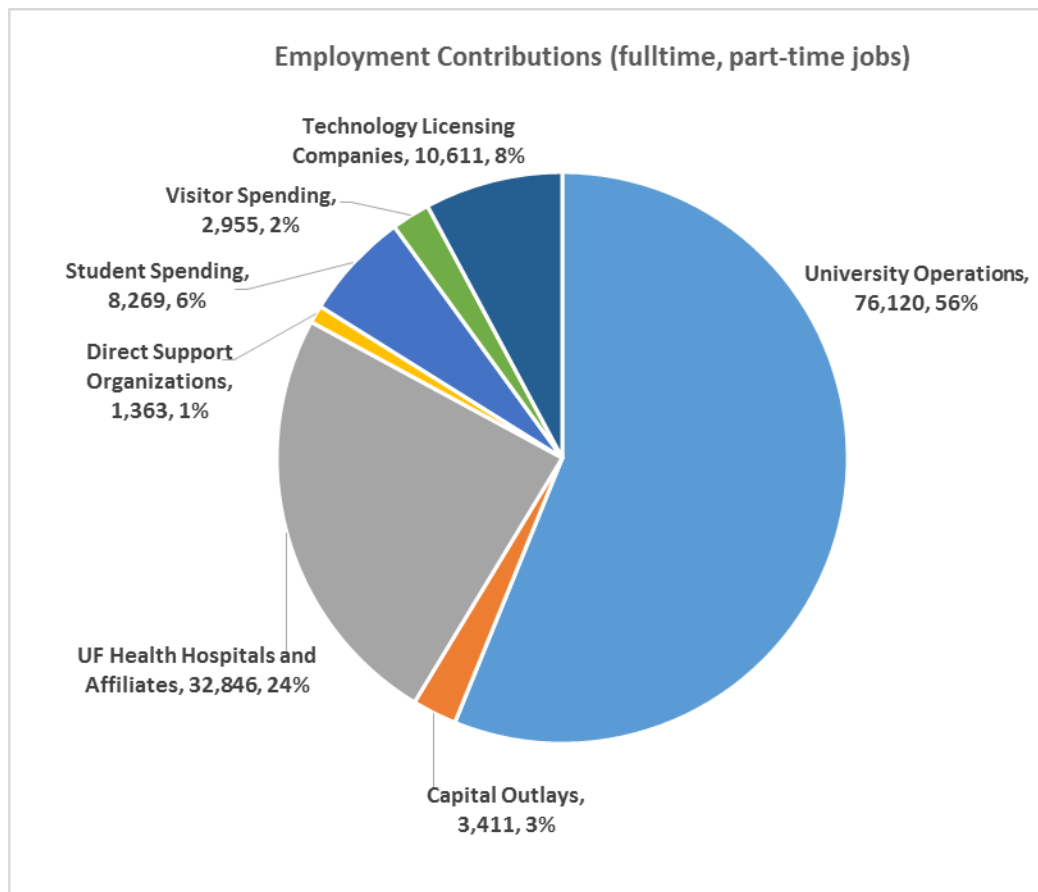
Analysis of research awards received by UF in relation to salaries and benefits paid for faculty hired under the *Preeminence Initiative* indicate a return on investment to state dollars of 3.14 fold.

Table ES1. Summary of economic contributions of the University of Florida and related entities in the State of Florida, 2014-15

Entity / Activity	Expense or Revenue	Expense In-State, Margined	Expense In-State, Margined, Exogenous	Industry Output	Value Added	Labor Income	Property Income	Business Taxes	Employment (Fulltime, Part-time Jobs)
Million Dollars									
University Operations	2,599.5	2,235.8	882.7	3,850.7	3,019.8	2,258.5	659.2	102.1	76,120
Capital Outlays	240.6	202.6	197.0	503.2	251.5	151.3	82.6	17.7	3,411
UF Health Hospitals and Affiliates	1,836.9	1,659.8	1,594.9	4,605.9	2,667.8	1,863.6	650.4	153.8	32,846
Direct Support Organizations	193.5	193.5	36.2	260.1	196.9	120.4	57.8	18.8	1,363
Student Spending	666.7	483.9	172.9	793.8	494.8	252.8	195.7	46.3	8,269
Visitor Spending	253.3	187.4	46.9	272.6	165.4	97.2	47.3	20.9	2,955
Technology Licensing Companies	908.8	908.8	908.8	2,269.6	1,030.9	583.5	365.3	82.1	10,611
Total	6,699.3	5,871.7	3,839.4	12,555.9	7,827.1	5,327.2	2,058.3	441.6	135,576

Estimates include indirect and induced multiplier effects for expenditures funded from sources outside Florida.
 Source: *IMPLAN* software and data (*IMPLAN* Group, LLC).

Figure ES1. Summary of employment contributions of the University of Florida and related entities in the State of Florida, 2014-15



Acknowledgements

This study was commissioned by the University of Florida, Office of University Relations. Assistance and information used in preparation of this report was provided by the following units and persons:

Accounting and Financial Reporting: Ted Griswold, Patrice Lecompte, Arriel Crichton

Athletic Association: Mary Howard, Jeannine Wallace Travis Leyndyke, Lee Ziegler, Brian Lackey

Career Resource Center: Heather Wilson, Roshan Parikh, Allison Novak

College of Dentistry: Lynn King

College of Medicine: Laura Gruber, Rasa Williamson

Department of Housing and Residence Education: Yanmei Zhang

Division of Continuing Education: Andrew Campbell

Division of Sponsored Research: Lisa Stroud, Brian Prindle

Florida Museum of Natural History: Paul Ramey

Harn Museum: Tami Wroath

Human Resource Services: Melissa Curry

IFAS Budget and Finance: Kimberly Browne, Juli Carter

IFAS Conferences and Institutes: Beth Miller-Tipton

Institutional Planning and Research: Noelle Mecoli

New Student and Family Programs: Jaime Gresley

Performing Arts Center: Amy Douglas

Progress Park and Sid Martin Biotechnology Incubator: Merrie Shaw, Mark Long

Provost and Senior Vice President for Academic Affairs: Jerry Bigham, Cheryl May, Rebecca Holt

Stephen C. O'Connell Center: Elizabeth Graeler

Technology Licensing: David Day, Patricia Reineke

UF Foundation: Randy Settle

UF Health: Paul Lipori

UF Research Foundation: George Kolb

University Relations: Jane Adams, Janine Sikes

Veterinary Hospitals: Erin Schmidt

Introduction

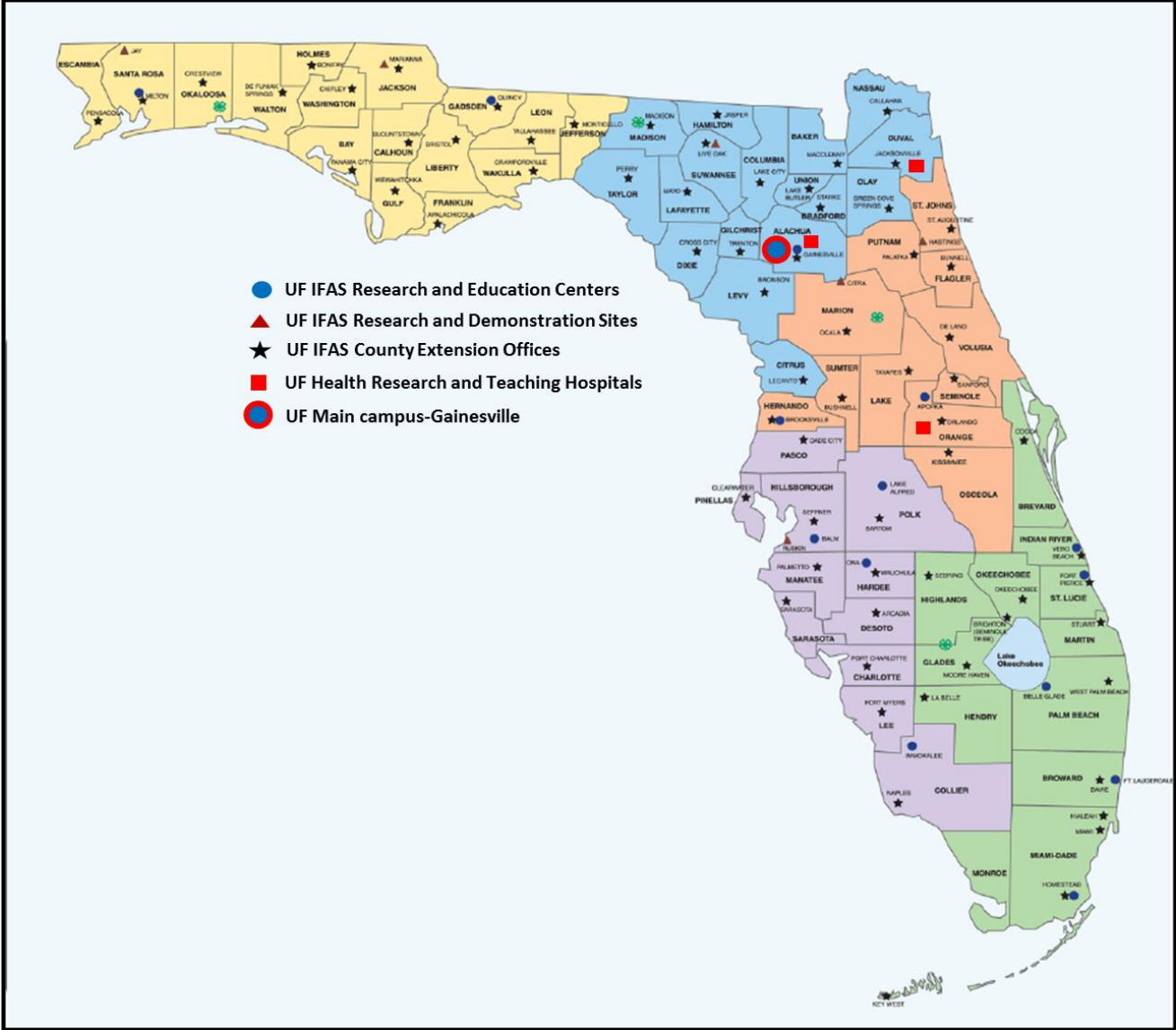
The University of Florida (UF) was founded in 1853 in Lake City, Florida, then relocated to Gainesville, Florida in 1866. Today, UF is one of the largest comprehensive public universities in the United States, with enrollment in excess of 50,000 students from throughout the United States and world. The university offers a broad array of educational programs in 16 separate colleges, including over 100 undergraduate majors, 200 graduate degrees, 30 training certificates, and over 16 online degree programs. To-date, the University has conferred over one-half million degrees to students. The main campus in Gainesville has over 900 buildings on 2000 acres. UF is a designated Land Grant university in Florida, and the UF-Institute of Food and Agricultural Sciences operates 13 Research and Education Centers throughout the state and Cooperative Extension Offices in all 67 counties that provide public services and community outreach (Figure 1). In addition the University is affiliated with Shands Hospitals and clinics that provide healthcare services, and numerous organizations that support the University mission. UF is a member of the prestigious Association of American Universities, a group of 62 elite public and private research universities in the U.S. It is consistently ranked as one of the best values in higher education in the U.S. due to its high educational standards and relatively low costs of attendance.

UF makes significant economic contributions to the State of Florida through its academic and physical operations, capital outlays, healthcare services, allied organizations, spending by students and visitors, and private companies licensing patented UF technologies. The purpose of this report is to provide an assessment of the economic contributions by UF to the state of Florida in the 2014-15 fiscal year (July 2014 through June 2015), and to compare results to a previous study for FY 2009-10². It should be noted that this study addresses only the spending and employment impacts of UF on the State's economy; it does not assess benefits to the human capital and earnings of the State workforce that was addressed in a study report for the State University System of Florida as a whole³.

² Economic Impacts of the University of Florida in 2009-10. Sponsored project report to the Office of University Relations. A. Hodges, T. Stevens and M. Rahmani, University of Florida, Food & Resource Economics Department, 24 pages, March 1, 2011, <http://www.fred.ifas.ufl.edu/pdf/economic-impact-analysis/UF%20Impact%20Report%20FY2009-10.pdf>.

³ 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. A. Hodges, T. Stevens, R. Clouser, University of Florida, Food & Resource Economics Department, and J. Harrington, M. Niekus, and K. Baker, Florida State University, Center for Economic Forecasting and Analysis, 55 pages, March 8, 2012, <http://www.fred.ifas.ufl.edu/pdf/economic-impact-analysis/SUS-of-Florida-FY-2009-10.pdf>. Note: updated report for 2014-15 submitted to Board of Governors, March 31, 2016.

Figure 1. Map of statewide locations of the University of Florida main campus, UF-IFAS and UF Health facilities



Source: modified from basemap by UF-IFAS.

Methods and Information Sources

This economic impact analysis was based on information compiled from a variety of sources. Data on University revenues and expenditures, including operating and non-operating expenditures, personnel salaries and benefits, and capital outlays, were taken from annual financial data for 2014-15 provided by the UF Division of Finance and Accounting. A special financial report was used that was prepared for the State University System-Board of Governors to show combined activity of the University of Florida and all component units, with fund transfer netted-out to avoid double-counting. Operating expenditures for Shands Hospital, Health Science Center Faculty Practice Associates, and Direct Support Organizations such as the University Athletic Association and Research Foundation, were obtained from their respective annual financial statements posted on the UF website. Employment data were obtained from the UF Division of Human Resources and the Office of Institutional Planning and Research. Spending by students was based on “Cost of Attendance” data from UF Student Financial Affairs. Spending by resident and nonresident visitors to University facilities and events was estimated from visitor counts provided by various UF organizations and average per-visitor-day spending estimates provided by *Visit Florida*. Information on private companies licensing patented UF technologies was obtained from the UF Office of Technology Licensing and management of the UF Progress Park in Alachua, Florida.

Total economic impacts of University operations and capital outlays, affiliated organizations, student and visitor spending, and companies licensing UF technologies were estimated with a regional economic input-output/Social Accounting Matrix (I-O/SAM) model for the state of Florida constructed using *IMPLAN* software and associated databases⁴. This type of model represents the economic structure of an explicitly defined region in terms of transactions between industries, households and government institutions, and accounts for industry output and employment, commodity production and consumption, domestic and international trade flows, capital investment, taxes paid to local, state and federal governments, and transfer payments such as welfare and retirement. Regional input-output models enable the estimation of economic multipliers that capture the effects of input supply chain purchases (indirect effects), and household and government spending (induced effects) for new final demand to the state’s economy, as well as the direct spending and employment associated with any economic activity. The economic multipliers are used to estimate economic contribution measures for industry output (expenses or revenues), employment (fulltime and part-time jobs), value added (Gross Domestic Product), labor-income (employee compensation and proprietor income), property income (rents, interest, dividends, corporate profits), and indirect business taxes to local, state and federal governments. Total economic impacts in this case were estimated with the direct effects multipliers applied to in-state spending amounts, while direct, indirect and induced multipliers were applied to in-state spending that originated from nonlocal or exogenous sources (outside of Florida), representing approximately 39.5 percent of total revenues. The model

⁴ *IMPLAN* version 3, economic impact analysis and social accounting software, and 2014 data for Florida, *IMPLAN* Group LLC, Huntersville, NC.

was constructed with the econometrically estimated Regional Purchase Coefficients, and with all social accounts included in the Social Accounting Matrix, except business inventories.

Regional economic impact analysis considers the source and ultimate disposition of revenues and expenditures in relation to the study area, in this case, the State of Florida. Revenues that originate from outside the State represent new resources that generate multiplier effects in the economy through subsequent rounds of spending. The share of spending inside of Florida was estimated using Regional Purchase Coefficients estimated by the *IMPLAN* model that capture the average share of total purchases sourced within the region for each specific type of good or service. Purchased goods and services sourced from outside the State represent a leakage that generates no impacts for the State economy. Expenditures for UF construction projects were treated as 100 percent new final demand for the State of Florida, as is conventional practice for economic contribution analysis. The share of expenditures for operations and non-construction capital outlays designated as new final demand was determined by the overall share of UF revenues originating from outside the State based on analysis of the source of funds. Student spending was assumed to occur 100 percent inside the State, and the proportion of nonlocal funding for student expenditures was determined based on the share of non-residents students (18.7%).

Expenditures were classified according to the North American Industry Classification System (NAICS) and assigned to over 100 appropriate industry sectors in the *IMPLAN* model. Payroll for UF employees was assigned to the sector *State and Local Government-Education*. Operating expenses by UF Health Shands Hospital and affiliated clinical practices were assigned to the sectors for *Hospitals* and *Offices of Doctors*, respectively. Operating expenditures by Direct Support Organizations were assigned to the *IMPLAN* sector for *Grantmaking, Giving and Social Advocacy Organizations*, with the exception of the University Athletic Association, which was assigned to the sector *Spectator Sports*.

Student expenditures were evaluated separately for residents and nonresidents, with nonresident spending treated as new final demand, while resident spending was considered for only direct effects multipliers. Student expenses for tuition and on-campus housing and food were not included in the analysis since these dollars were captured by University revenues and spending, and UF campus vendors for food services, bookstores, and vending concessions were similarly not included. Visitors spending was evaluated separately for residents and nonresidents, similar to student spending, with spending excluded for University-affiliated personnel (faculty, staff and students). Trade margins were applied to spending at retail stores and wholesale trade businesses to express values in producer prices, as is standard for input-output analysis. Spending for certain items, such as depreciation and bad debt expense, were excluded from the analysis because these do not represent a cash transaction which has a current local economic impact.

For private companies licensing patented UF technologies, the reported job numbers were converted into revenues using national average output per worker ratios for each type of industry within the *IMPLAN* model.

Revenues, Expenditures and Direct Employment by the University of Florida and Affiliated Organizations

Revenues and expenses for the University of Florida (UF) and affiliated organizations (component units) in fiscal year 2014-15 are presented in Table 1. Total operating revenues for UF itself were \$1.73 billion, operating expenses were \$2.59 billion, net non-operating revenues were \$1.04 billion, and other revenues, expenses, gains or losses were \$86 million. The largest operating and non-operating revenues to UF were for nongovernmental grants and contracts (\$745 million), noncapital state appropriations (\$644 million), student tuition and fees (\$522 million), federal grants and contracts (\$387 million), noncapital grants, contracts and gifts (\$262 million), and sales and services of auxiliary enterprises (\$126 million). UF also received \$54 million in capital state appropriations and \$32 million in capital grants, contracts and donations, and \$34 million in investment income. Operating expenses for UF included employee compensation and benefits (\$1.81 billion), services and supplies (\$496 million), scholarships, fellowships and waivers (\$84 million), utilities and communications (\$68 million), and depreciation (\$135 million).

Among affiliated organizations to UF, operating revenues were \$1.88 billion for Shands Hospitals, \$836 million for Health Science Center Affiliates, and \$246 million for Direct Support Organizations. Direct Support Organizations received \$124 million in sales and services, and \$87 million in gifts and donations. The component units also had significant investment income and other non-operating revenues. Total operating expenditures were \$1.66 billion for Shands Hospitals, \$303 million for Health Science Center Affiliates, and \$508 million for Direct Support Organizations, including \$808 million, \$85 million and \$2 million, respectively, for employee compensation and benefits, and \$762 million, \$210 million and \$496 million for services and supplies.

A statement of consolidated operating and non-operating revenues for UF and affiliated organizations in 2014-15, with fund transfers removed to avoid double-counting, is presented in Table 2. All revenues totaled \$5.00 billion in 2014-15, with the largest item being hospital operations (\$2.44 billion), representing 48.8 percent of the total, followed by state appropriations (\$654 million, 13.1%), federal grants and contracts (\$387 million, 7.7%), net student tuition and fees (\$376 million, 7.5%), nongovernmental grants and contracts (\$197 million, 3.9%), sales and services of component units (\$133 million, 2.7%), net investment income (\$127 million, 2.5%), sales and services of auxiliary enterprises (\$126 million, 2.5%) and federal and state scholarship grants (\$116 million, 2.3%), as depicted in Figure 2.

The combined revenues to UF and affiliated organizations were analyzed in relation to sources of funds within the State of Florida versus outside the state, based on data and estimates provided by UF informants. 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 (Table 2). 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 were allocated to out-of-state sources based on the proportion of nonresident students enrolled (18.7%), while 81.3 percent of total tuition and fees reflected the higher fees charged to nonresident students. 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. A total of 60.5 percent of all revenues were allocated to out-of-state sources, however, after excluding hospital revenues and capital appropriations and grants and donations, which were considered separately in this analysis, 39.5 percent of revenues were from out-of-state. This share of revenues from out-of-state sources was considered as the new final demand for purposes of economic contribution analysis.

Consolidated operating and non-operating expenditures for UF and operating expenditures for affiliated organizations in 2014-15 that were used for the economic contribution analysis are summarized in Table 3. Expenditures by all units totaled \$4.87 billion, including \$2.60 billion for UF operations, \$241 million for UF capital outlays, \$1.84 billion for UF Health hospitals and affiliates, and \$194 million for Direct Support Organizations. Within UF operations, expense items included employee compensation and benefits (\$1.81 billion), services and supplies (\$496 million), scholarships (\$84 million), utilities (\$68 million), non-operating expenses (\$6 million) and depreciation on capital assets (\$135 million). Note that depreciation expenses were not considered in the economic contribution analysis because this represents non-cash expense with no local impact. Capital outlay expenditures included new construction (\$127 million), renovation construction (\$66 million), and small asset and major new equipment purchases. A list of individual construction projects is provided in Appendix A. Within UF Health and affiliates, operating expenditures were largest for Shands Teaching Hospital and Clinics (\$1.09 billion), Shands Jacksonville HealthCare (\$550 million), and UF Jacksonville Physicians (\$125 million). Among Direct Support Organizations, operating expenditures were largest for the University Athletic Association (\$130 million), UF Foundation (\$36 million), and UF Research Foundation (\$4 million).

Expenditures for UF and affiliated organizations were allocated to expenditures made in the State of Florida, and with wholesale/retailer margins applied, and further allocated to out-of-state (exogenous) sources based on the analysis of revenues discussed above, as shown in Table 3, columns 2 and 3, respectively. Some \$4.29 billion in expenditures, representing 88.1 percent of total expenditures were determined to be made in-state, and \$2.71 billion (55.7%) of expenditures were made in the state from out-of-state sources.

Table 1. Statement of income and expenses for the University of Florida and affiliated organizations, 2014-15

Income / Expense Item	University of Florida	Direct- Support Organizations	Health Science Affiliates	Shands Hospital
	----- Thousand Dollars -----			
Operating Revenues				
Student Tuition and Fees	522,444			
Scholarship Allowances	-146,206			
Student Tuition and Fees, Net of Scholarship Allowances	376,238			
Federal Grants and Contracts	386,876			
State and Local Grants and Contracts	44,642			
Nongovernmental Grants and Contracts	744,655			
Sales and Services of Auxiliary Enterprises	126,085			
Sales and Services of Educational Departments	52,098			
Sales and Services of Component Units		123,671		10,004
Hospital Revenues			737,721	1,839,612
Gifts and Donations - Component Units		87,407		
Royalties and Licensing Fees - Component Units		25,640		
Interest on Loans and Notes Receivable	1,092			
Other Operating Revenues	3,644	9,746	97,811	32,024
Total Operating Revenues	<u>1,735,330</u>	<u>246,464</u>	<u>835,532</u>	<u>1,881,640</u>
Operating Expenses				
Employee Compensation and Benefits	1,811,810	1,553	85,047	807,638
Services and Supplies	496,362	495,843	209,873	762,264
Utilities and Communications	67,727			
Scholarships, Fellowships and Waivers, Net	83,861			
Depreciation	134,530	10,414	7,975	84,675
Self-Insured Claims and Expenses				1,554
Total Operating Expenses (Note 19)	<u>2,594,290</u>	<u>507,810</u>	<u>302,895</u>	<u>1,656,131</u>
Operating Income (Loss)	-858,960	-261,346	532,637	225,509
Non-operating Revenues (Expenses)				
Noncapital State Appropriations	643,570	3,500		7,050
Federal and State Student Financial Aid	115,755			
Noncapital Grants, Contracts, and Gifts	262,161			
Investment Income	34,321	75,231	500	37,433
Net Increase (Decrease) in the Fair Value of Investments	-1,144	-1,697	-383	-5,244
Investment Expenses	-3,842	-472	-833	-7,269
Other Non-operating Revenues	710	81,735	34,043	19,854
Gain (Loss) on Disposal of Capital Assets	-2,384	3,748	6,485	-659
Interest on Capital Asset-Related Debt	-8,584	-1,829	-	-25,235
Other Non-operating Expenses	-5,782	-63,921	-541,322	-167,086
Net Non-operating Revenues (Expenses)	<u>1,034,781</u>	<u>96,295</u>	<u>-501,510</u>	<u>-141,156</u>
Income (Loss) Before Other Revenues, Expenses, Gains, Losses	175,821	-165,051	31,127	84,353
Capital State Appropriations	54,222			
Capital Grants, Contracts, and Donations	31,945			
Additions to Permanent Endowments		32,749		
Total Other Revenues, Expenses, Gains, or Losses	<u>86,167</u>	<u>32,749</u>		

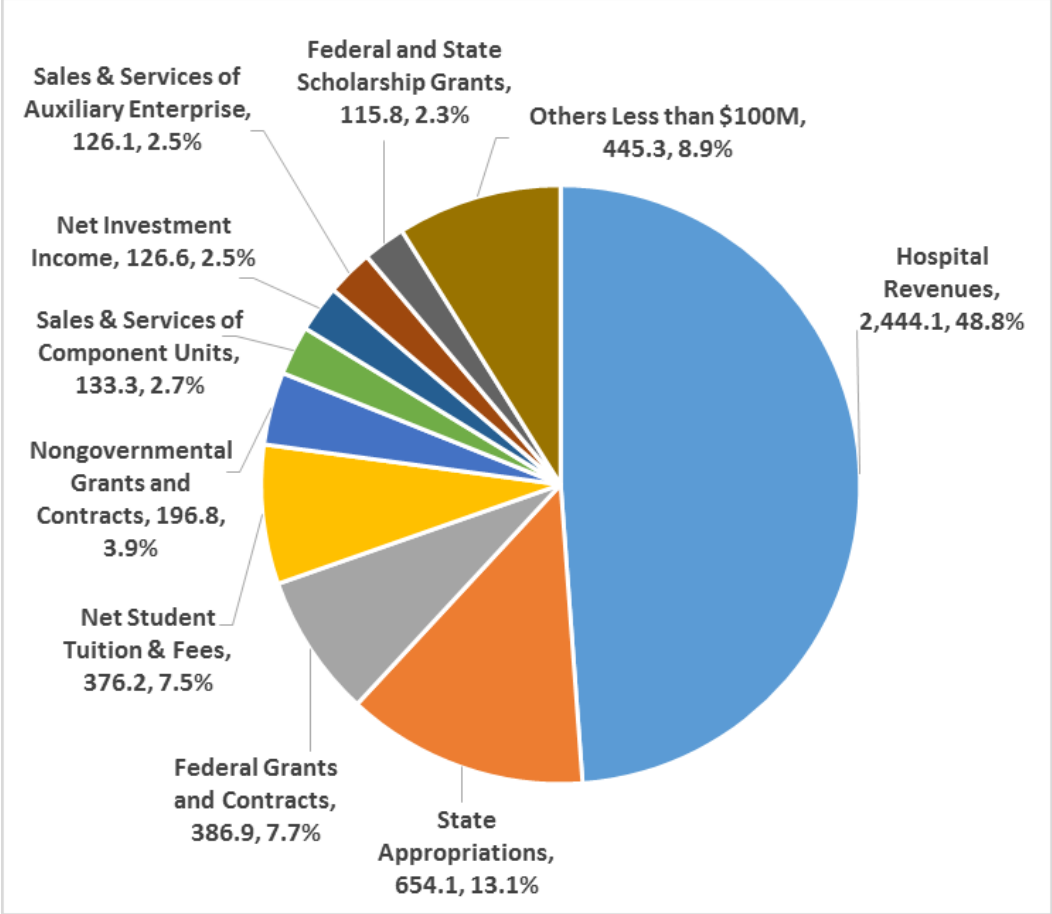
Source: UF Annual Financial Report.

Table 2. Consolidated revenues to the University of Florida and affiliated organizations analyzed by in-state versus out-of-state sources, 2014-15

Revenue Item	Total (Million dollars)	Percent In-State	In-State Sources (Million dollars)	Percent Out-of- State	Out-of- State Sources (Million dollars)
Net Student Tuition & Fees	376.2	62.7%	235.9	37.3%	140.3
Federal Grants and Contracts	386.9	0.0%	0.0	100.0%	386.9
State and Local Grants and Contracts	44.6	90.0%	40.2	10.0%	4.5
Nongovernmental Grants and Contracts	196.8	33.0%	65.0	67.0%	131.9
Sales & Services of Educational Departments	52.1	81.3%	42.4	18.7%	9.7
Sales & Services of Auxiliary Enterprises	126.1	81.3%	102.5	18.7%	23.6
Sales & Services of Component Units	133.3	81.3%	108.4	18.7%	24.9
Hospital Revenues	2,444.1	3.6%	88.0	96.4%	2,356.1
Gifts and Donations	70.4	84.0%	59.2	16.0%	11.3
Royalties and Licensing Fees	25.6	75.0%	19.2	25.0%	6.4
Interest on Loans Receivable	1.1	0.0%	0.0	100.0%	1.1
Other Operating Revenues	73.3	75.0%	55.0	25.0%	18.3
Subtotal Operating Revenues	<u>3,930.7</u>	20.75%	<u>815.7</u>	79.25%	<u>3,115.0</u>
State Appropriations	654.1	100.0%	654.1	0.0%	0.0
Federal and State Scholarship Grants	115.8	10.0%	11.6	90.0%	104.2
Non Capital Grants, Donations	10.7	84.0%	9.0	16.0%	1.7
Net Investment Income	126.6	25.0%	31.7	75.0%	95.0
Other Non-Operating Revenue	48.4	75.0%	36.3	25.0%	12.1
Subtotal Non-operating Revenues	<u>955.6</u>	77.72%	<u>742.6</u>	22.28%	<u>212.9</u>
Capital Appropriations	54.2	100.0%	54.2	0.0%	0.0
Capital Grants, Contracts and Donations	31.9	84.0%	26.8	16.0%	5.1
Additions to Permanent Endowments	32.7	84.0%	27.5	16.0%	5.2
Total Net Revenues	<u>5,005.2</u>	33.3%	<u>1,666.9</u>	66.70%	<u>3,338.3</u>

Source: UF Accounting and Finance, Annual Financial Report to the State University System, Board of Governors.

Figure 2. Summary of major revenues to the University of Florida and affiliated organizations, 2014-15



Values are given in Million dollars.

Table 3. Consolidated expenditures by the University of Florida and affiliated organizations, 2014-15

Activity / Category	Amount	In-State, Margined	In-State, Margined, Exogenous
Million Dollars			
University Operations	2,599.5	2,235.8	882.7
Employee Compensation	1,811.8	1,829.9	722.4
Services and Supplies	495.8	257.6	101.7
Scholarships	83.9	83.9	33.1
Utilities	67.7	62.9	24.8
Non-Operating Expenses	5.8	1.6	0.6
Depreciation	134.5	0.0	0.0
Capital Outlays	240.6	203.3	197.7
New Construction	127.0	127.0	127.0
Renovation Construction	65.6	65.6	65.6
Small Asset Purchases	45.8	9.2	3.6
New Equipment	2.2	1.5	1.5
UF Health Hospitals and Affiliates	1,836.9	1,659.8	1,594.9
Shands Jacksonville HealthCare, Inc.	549.6	494.3	476.5
Shands Teaching Hospital & Clinics, Inc.	1,092.0	982.0	946.7
Faculty Associates, Inc.	0.3	0.3	0.2
Florida Clinical Practice Association, Inc.	28.2	26.8	25.8
Gator Care Health Management Corporation	0.6	0.6	0.1
University of Florida Healthcare Education Insurance Company	-2.3	-1.5	0.0
University of Florida Jacksonville Healthcare, Inc.	33.3	31.7	30.5
University of Florida Jacksonville Physicians, Inc.	124.7	118.5	114.2
University of Florida Self-Insurance Program	9.5	6.3	0.0
Faculty Clinic, Inc.	1.0	0.9	0.9
Direct Support Organizations	193.5	193.5	36.2
Citrus Research and Development Foundation, Inc.	12.5	12.5	2.3
Florida Veterinary Medicine Faculty Association, Inc.	0.4	0.4	0.1
Gator Boosters, Inc.	2.7	2.7	0.5
The University Athletic Association, Inc.	129.7	129.7	24.2
University of Florida Development Corporation	3.0	3.0	0.6
University of Florida Foundation, Inc.	36.3	36.3	6.8
University of Florida Research Foundation, Inc.	4.2	4.2	0.8
Florida 4-H Club Foundation, Inc.	1.8	1.8	0.3
Citrus Research and Education Foundation, Inc.	1.2	1.2	0.2
Others*	1.7	1.7	0.3
Grand Total	<u>4,870.5</u>	<u>4,292.3</u>	<u>2,711.5</u>

Source: UF Accounting and Finance.

*Other Direct Support Organizations include: UF Historic St. Augustine, Inc., Treasure Coast Agricultural Research Foundation, Inc., Southwest Florida Research and Education Foundation, Inc., University of Florida Law Center Association, Inc., Florida Foundation Seed Producers, Inc.

Direct employment by the University of Florida and affiliated organizations in 2014-15 totaled 41,013 fulltime and part-time jobs (Table 4). The University itself had employment of 29,859 jobs, of which 13,582 were fulltime positions for faculty and staff, and 16,277 were part-time or temporary positions for Other Personnel Services (OPS), adjunct faculty, and various student positions. Among the faculty, 2,907 positions were regular teaching/research extension faculty, 1,188 were clinical faculty, 138 were administrative faculty, and 317 were IFAS/Sea Grant Extension Agents. UF Health Shands hospitals and clinics employed 10,460 persons in Gainesville and Jacksonville. An additional 694 jobs existed in large Direct Support Organizations reporting, including 628 jobs in the University Athletic Association.

Table 4. Direct employment at University of Florida and affiliated organizations, 2015

Entity / Employee Class	Fulltime Employees	Part-time Employees	Total Employees
<u>University of Florida</u>			
Regular Faculty	2,777	130	2,907
Administrative Faculty	136	2	138
Clinical Faculty	1,031	157	1,188
Librarians	77	0	77
IFAS/Sea Grant Extension Agents	316	1	317
PK Yonge Lab School Faculty	82	2	84
Career Faculty	141	9	150
Post Doc/Research Associates	576	28	604
Staff: TEAMS	7,573	170	7,743
Staff: USPS	873	11	884
Temporary employees (OPS Staff, Adjunct Faculty, Graduate Teaching Assistants, Work Study, Other Student Workers)		15,767	15,767
Subtotal	<u>13,582</u>	<u>16,277</u>	<u>29,859</u>
Shands Hospital and clinics-Gainesville			6,840
Shands Hospital and clinics-Jacksonville			3,620
Subtotal			<u>10,460</u>
<u>Direct Support Organizations*</u>			
University Athletic Association			628
Gator Boosters	12		12
University of Florida Foundation	54		54
Subtotal	<u>66</u>	<u>0</u>	<u>694</u>
Total UF and Affiliated Organizations	<u>13,648</u>	<u>16,277</u>	<u>41,013</u>

*Employment does not include small Direct Support Organizations.

Sources: UF Office of Human Resource Services, UF Health, Direct Support Organizations.

Student Attendance and Spending

University of Florida student enrollment for the fall 2014 semester was 50,536 students, including 34,782 (68.8%) undergraduates, and 15,754 (31.2%) students in graduate and professional programs (Table 5). Some 34,210 students (67.7%) were Florida residents and 15,754 (32.2%) were non-residents. Based on campus dormitory bed count, among undergraduates, 7,737 (22.2%) lived in campus housing and 27,045 (77.8%) lived off-campus.

Student expenditures for the 2014-15 academic year were calculated from cost of attendance data separately for resident/nonresident, undergraduate/graduate-professional, and students living on or off campus (Table 6). The average cost per resident undergraduate student living on campus was \$20,550, including tuition and fees (\$6,310), housing (\$5,340), food (\$4,290), books and supplies (\$1,290), computer/cell phone (\$1,260), transportation (\$1,100), clothing maintenance (\$690), and personal (\$270). Costs for nonresident undergraduate students on campus were the same except that tuition and fees were higher (\$19,050). Tuition costs were higher for graduate students, both residents (\$12,680) and nonresidents (\$30,074), and for certain professional programs. Housing costs are also higher for graduate students, while housing and food costs are lower for undergraduates living at home. The total cost of attendance for a nonresident graduate student was \$45,684.

Total UF student spending in 2014-15 was calculated at \$1.41 billion, including \$135 million for Florida residents living on campus, \$38 million for nonresident students on campus, \$616 million for residents living off campus, and \$622 million for nonresidents off campus (Table 7). Tuition and fees paid by nonresident students represented 61.9 percent of all tuition and fees. Expenses for food by off-campus students were divided equally into purchases from retail food stores and food services (restaurants).

Expenses for tuition and fees paid by all students, and housing and food expenses by on-campus students were not considered for the economic contribution analysis because this spending was accounted for in general university operations. Spending by nonresident students was treated as new final demand in the State of Florida, and subject to the full regional multiplier effects, while spending by resident students was considered a transfer, and was applied only to direct effects multipliers.

Table 5. Student enrollment at the University of Florida, by residency and level, 2014 fall semester

Education Level	Residents	Non-residents	Total
Undergraduate	27,917	6,865	34,782
Graduate and professional	6,293	9,461	15,754
Total	<u>34,210</u>	<u>16,326</u>	<u>50,536</u>

Sources: Division of Student Affairs, Housing and Resident Education.

Table 6. Cost of attendance to the University of Florida, by residency and classification, 2014-15 academic year

Budget Item	Resident Undergraduate On/Off Campus	Resident Undergraduate Living At Home	Non-Resident Undergraduate	Resident Graduate	Non-Resident Graduate
	Dollars Per Student				
Books and supplies	1,290	1,290	1,290	1,290	1,290
Clothing maintenance	690	690	690	690	690
Computer and cell phone	1,260	1,260	1,260	1,360	1,360
Food	4,290	1,010	4,290	4,290	4,290
Housing	5,340	0	5,340	6,610	6,610
Personal	270	270	270	270	270
Transportation	1,100	130	1,100	1,100	1,100
Tuition and fees*	6,310	6,310	19,050	12,680	30,074
Total	<u>20,550</u>	<u>10,960</u>	<u>33,290</u>	<u>28,290</u>	<u>45,684</u>

*Tuition and fees are higher for professional programs.

Source: UF Office for Student Financial Affairs, <http://www.sfa.ufl.edu/uf-online/cost-of-attendance>.

Table 7. University of Florida student expenditures, by residency and on-/off-campus living status, 2014-15 academic year

Budget Item	Resident Living On Campus	Nonresident Living On Campus	Residents Living Off Campus	Nonresidents Living Off Campus	Total
	Million Dollars				
Books and supplies	8.49	1.49	35.64	19.57	65.19
Clothing maintenance	4.54	0.80	19.06	10.47	34.87
Computer and cell phone	8.29	1.46	35.44	20.06	65.25
Food stores	0.00	0.00	59.26	32.54	91.80
Food service	28.24	4.95	59.26	32.54	125.00
Housing	35.15	6.17	155.53	93.03	289.87
Personal	1.78	0.31	7.46	4.10	13.64
Transportation	7.24	1.27	30.39	16.69	55.59
Tuition and fees	41.53	22.00	214.42	393.31	671.26
Total	<u>135.26</u>	<u>38.45</u>	<u>616.46</u>	<u>622.30</u>	<u>1,412.48</u>

Expenses for food split between food stores and food service for off campus students.

Visitor Attendance and Spending

The University of Florida has a wide array of facilities that attract visitors for educational and cultural purposes and collegiate athletic events. In addition, UF Health hospitals and clinics receive a large number of patients and accompanying family members.

A total of 3.85 million persons attended UF educational, cultural and healthcare venues in 2014-15, as presented in Table 8. Shands Hospitals and clinics in Gainesville and Jacksonville had 2.85 million visitors for patient admissions, outpatients, and accompanying family, assuming one accompanying person per patient. Attendance at cultural venues included the Florida Museum of Natural History (207,028), Phillips Center for Performing Arts (171,112), Harn Museum (110,161), University Auditorium (38,526), and the Baughman Center (9,487). The O'Connell Center had attendance of over 326,000 for all commencements, and other non-athletic events. Continuing education events held by the Colleges of Medicine and Dentistry, UF Continuing Education, and IFAS Conferences and Institutes had nearly 75,000 visitors. About 20,000 prospective students and family members visited the UF campus for student orientation. Nearly 1000 employment recruiters visited UF for job fairs and student interviews. The share of visitors who represented nonresidents from out-of-state, and Florida residents that were not UF students, faculty or staff was estimated by UF facility managers. The share of nonresidents ranged from 3 to 50 percent, and the share of resident/non-affiliated ranged from 30 to 80 percent. For all venues, a total of 2.51 million visitors were estimated to be nonaffiliated Florida residents, and 197,000 were nonresidents. Each nonresident visitor for and all resident visitors for continuing education, student orientation and the career resource center were considered to represent one full visitor-day of spending, while resident visitors to cultural and health venues were counted as one-half visitor-day. A total of 1.49 million visitor-days were estimated for all educational, cultural and healthcare venues.

The University of Florida is regarded as one of the premier institutions for the college athletics in the United States, with national championships in most major sports. Attendance at UF home athletic events is presented in Table 9. Total attendance at all athletic events was 979,000. The sports with the largest attendance were football (515,000), men's basketball (169,000) and baseball (138,000), followed by the women's sports of volleyball (41,000), softball (39,000), gymnastics (29,000), basketball (26,000), and soccer (11,000). Lacrosse, women's and men's tennis had attendance of less than 6,000. Data on the share of athletic event attendees who were nonresidents and nonaffiliated Florida residents was provided by Athletic Association staff for the three largest sports that have ticketed admissions (football, men's basketball, baseball). The percentage of nonresidents was 11.5 percent for football, 18.6 percent for men's basketball and 42.0 percent for baseball, while the percentage of nonaffiliated residents was 65.0, 62.8, and 69.2 percent, respectively. The weighted average of 65.3 percent nonaffiliated and 18.1 percent nonresident was applied to the other sports for which specific information was not available. For all sports, a total of 639,000 attendees were estimated to be nonaffiliated Florida residents, and 177,000 were nonresidents. For nonresidents, each visitor was considered to represent one full visitor-day of

spending, while each resident visitor was counted as one-half visitor-day. A total of 497,000 visitor-days were estimated for athletic events.

Expenditures by UF visitors were estimated using average travel expense data for domestic travelers in Florida in 2013 provided by *VISIT FLORIDA*, the quasi-official state tourism promotion organization, based on ongoing surveys conducted by the market research organization D.K. Shifflet and Associates. Expenditures were given as \$116 per person-day for Florida residents, and \$177 for nonresidents, including lodging, food and beverage, entertainment, transportation (rental car, and other, excluding airfare), shopping and miscellaneous other expenses (Table 10).

Total visitor spending in 2014-15 was estimated at \$253 million, including \$185 million for educational, cultural and healthcare visitors, and \$68 million for athletic events (Table 11). These totals included spending of \$187 million by Florida residents and \$66 million by nonresidents.

Table 8. Attendance at University of Florida academic, cultural and healthcare venues, 2014-15

Activity / Venue	Total	Resident, Nonaffiliated Visitors	Nonresident Visitors
Museum of Natural History	207,028	82,811	41,406
Philips Center for Performing Arts	171,112	51,334	17,111
Baughman Center	9,487	4,269	949
University Auditorium	38,526	13,869	3,853
Harn Museum	110,161	55,081	11,016
O'Connell Center (incl. non-UF athletic events)	326,186	146,784	16,309
Shands Gainesville Hospital admissions, outpatient visits and accompanying family	1,894,718	1,364,197	56,842
Shands Jacksonville Hospital admissions, outpatient visits and accompanying family	959,702	690,985	28,791
Veterinary Medicine Hospitals (family accompanying animal patients)	35,297	25,414	1,059
Career Resource Center	933	467	467
College of Medicine Continuing Education	57,614	46,091	11,523
College of Dentistry Continuing Education	3,252	2,602	650
UF Continuing Education	9,529	6,670	1,906
IFAS Conferences and Institutes	4,561	3,193	912
Student orientation	20,000	16,260	3,740
Total visitors	<u>3,848,106</u>	<u>2,510,026</u>	<u>196,533</u>
Total Visitor-days: assuming 0.5 days per person for resident visits to cultural attractions and health facilities, 1 day per-person for nonresidents	1,489,187	1,292,654	196,533

Sources: UF units.

Table 9. Attendance at University of Florida athletic events, 2014-15

Sport	Total Attendance	Resident, Nonaffiliated Attendance	Nonresident Attendance
Football	515,001	334,995	59,225
Men's Basketball	169,123	106,278	31,457
Baseball	138,441	95,811	58,145
Volleyball	40,833	26,661	7,388
Softball	38,628	25,222	6,989
Gymnastics	29,254	19,101	5,293
Women's Basketball	26,089	17,035	4,720
Soccer	10,817	7,063	1,957
Lacrosse	5,077	3,315	919
Women's Tennis	3,934	2,569	712
Men's Tennis	2,062	1,346	373
Total	<u>979,259</u>	<u>639,396</u>	<u>177,178</u>
Total Visitor-days: assuming one-half days per person for residents, one day for nonresidents	496,876	319,698	177,178

Source: University Athletic Association.

Table 10. Average travel spending per visitor-day for Florida residents and nonresidents

Item	Florida Residents	Nonresidents
	<u>Dollars per Visitor-Day</u>	
Entertainment and recreation	12.44	19.00
Food and beverage	22.19	33.90
Lodging	31.55	48.20
Other	3.01	4.60
Shopping	12.63	19.30
Transportation - rental car	22.98	35.10
Transportation - taxi, bus, gas, etc.	11.19	17.10
Total	<u>116.00</u>	<u>177.20</u>

Excludes air transportation.

Source: *Visit Florida*, 2013 Florida Visitor Study, Tallahassee, FL.

Table 11. Aggregate spending by University of Florida visitors, 2014-15

Item	Athletic Event Visitors		Educational and Cultural Event Visitors		Total All Visitors
	Residents	Nonresidents	Residents	Nonresidents	
----- Million Dollars -----					
Entertainment & Recreation	3.98	3.37	16.08	3.73	27.15
Food & Beverage	7.09	6.01	28.69	6.66	48.45
Lodging	10.09	8.54	40.79	9.47	68.89
Other Expenses	0.96	0.82	3.89	0.90	6.57
Shopping	4.04	3.42	16.33	3.79	27.58
Transportation - rental car	7.35	6.22	29.70	6.90	50.16
Transportation - taxi, bus, gas, etc.	3.58	3.03	14.47	3.36	24.44
Total All Items	<u>37.08</u>	<u>31.40</u>	<u>149.95</u>	<u>34.83</u>	<u>253.25</u>

Technology Licensing Companies

The University of Florida has an active program for licensing of patented technologies developed by research faculty. In 2015, UF had active license agreements with 101 companies located in Florida, including 33 companies at the Progress Park facility in Alachua, Florida that contains the Sid Martin Biotechnology Incubator (see listing in Appendix C). Descriptions of the products or services provided by each company were obtained from company websites. Licensing fees and royalties paid by private companies to UF and component units in 2014-15 amounted to \$26 million. Employment information was available for some firms from a census conducted by the staff at Progress Park, and from company websites. Technology licensing firms were classified under the appropriate industry sector within the *IMPLAN* regional economic model (Table 12). Direct employment of 1,394 positions was estimated for these companies, including one person imputed for each firm that did not provide employment information. The largest industry sectors for UF technology licensing were *Biological product manufacturing* (855 direct jobs), *Pharmaceutical preparation manufacturing* (164 jobs), *Pesticide and other agrichemical manufacturing* (46 jobs), *Marketing research and other professional services* (37 jobs), *Electromedical /electrotherapeutic apparatus manufacturing* (36 jobs), and *Dental equipment and supplies manufacturing* (25 jobs). Total annual sales revenues for all companies were estimated at \$909 million, based on the industry sector average output per employee in the regional economic model. All direct employment and industry sales of the technology licensing companies was considered to represent new final demand in the economic contribution analysis, since it was not possible to attribute a partial contribution of UF technologies to company operations.

Table 12. Summary of Florida companies licensing University of Florida technologies: number of firms and employment by industry sector, 2015

<i>IMPLAN</i> Industry Sector	Number Firms	Employment
Greenhouse, nursery, and floriculture production	1	1
Soybean and other oilseed processing	2	8
All other food manufacturing	1	1
Other basic inorganic chemical manufacturing	1	1
Pesticide and other agricultural chemical manufacturing	4	46
Medicinal and botanical manufacturing	7	14
Pharmaceutical preparation manufacturing	12	164
In-vitro diagnostic substance manufacturing	3	8
Biological product (except diagnostic) manufacturing	11	855
Other miscellaneous chemical product manufacturing	2	7
Glass product manufacturing made of purchased glass	1	2
Concrete block and brick manufacturing	1	1
Other concrete product manufacturing	1	1
Metal tank (heavy gauge) manufacturing	1	1
Semiconductor machinery manufacturing	2	3
All other industrial machinery manufacturing	1	1
Air purification and ventilation equipment manufacturing	1	1
Air conditioning, refrigeration, and warm air heating equipment manufacturing	1	1
Electronic computer manufacturing	1	5
Capacitor, resistor, coil, transformer, and other inductor manufacturing	1	1
Electromedical and electrotherapeutic apparatus manufacturing	3	36
Automatic environmental control manufacturing	1	2
Industrial process variable instruments manufacturing	1	1
Aircraft engine and engine parts manufacturing	1	18
Motorcycle, bicycle, and parts manufacturing	1	1
Surgical and medical instrument manufacturing	3	20
Dental equipment and supplies manufacturing	1	25
Ophthalmic goods manufacturing	1	10
Wireless telecommunications carriers (except satellite)	1	1
News syndicates, libraries, archives and all other information services	1	1
Internet publishing and broadcasting and web search portals	1	4
Lessors of nonfinancial intangible assets	1	1
Specialized design services	1	3
Custom computer programming services	2	2
Computer systems design services	3	17
Other computer related services, including facilities management	3	3
Management consulting services	3	6
Environmental and other technical consulting services	1	5
Scientific research and development services	4	11
Marketing research and other miscellaneous professional, scientific, and tech. services	2	37
Business support services	2	2
Other educational services	3	13
Medical and diagnostic laboratories	6	53
Total	101	1,394

Economic Contributions of the University of Florida and Related Entities in the State of Florida

The estimated total economic contributions associated with the University of Florida in fiscal year 2014-15 are summarized in Tables 13-14, and Figures 3-5. These estimates include the indirect and induced multiplier effects from the IMPLAN regional economic model for the State of Florida (see Methods section).

The total expenditures or revenues for all entities and activities were estimated at \$6.70 billion, including \$2.60 billion for University operations, \$1.84 billion for UF Health and affiliates, \$241 million for capital outlays, \$194 million for Direct Support Organizations, \$667 million for student spending, \$253 million for campus visitor spending, and \$909 million for technology licensing companies. Of this amount, \$5.87 billion in expenses or revenues were estimated to be made within the State of Florida and in producer price terms (margined), and \$3.84 billion in in-state expenses/revenues were determined to represent new final demand associated with UF funds from out-of-state sources and spending by nonresident visitors and students.

Industry output or revenue contributions in the State of Florida from all UF-related activities in 2014-15 were estimated at \$12.56 billion, including \$3.85 billion for UF operations, representing 31 percent of the total, \$4.61 billion (37%) for UF Health, and \$2.27 billion (18%) for Florida technology licensing companies, \$794 million (6%) for student spending, \$503 million (4%) for capital outlays, \$273 million (2%) for visitor spending, and \$260 million (2%) for Direct Support Organizations (Figure 3).

Employment contributions of UF-related entities totaled 135,576 fulltime and part-time jobs, which represented 1.26 percent of the state workforce in 2014. Direct employment in UF operations and indirect/induced employment generated by UF employee spending accounted for 76,119 jobs, or 56 percent of the total, while UF Health direct hospital employment and indirect spending accounted for 32,846 jobs (24%). Other employment contributions were for technology licensing companies (10,611 jobs, 8%), student spending (8,269 jobs, 6%), capital outlays (3,411 jobs, 3%), visitor spending (2,955 jobs, 2%), and Direct Support Organizations (1,363 jobs, 1%), as shown in Figure 4.

Value added represents labor income to individuals, business profits, other property-related income and business taxes, and is equivalent to Gross Domestic Product (GDP) as a broad measure of net economic activity. The total value added contribution of the UF and related entities was estimated at \$7.83 billion in 2014-15, representing 0.94 percent of State GDP in 2014. Among UF entities, value added contributions were \$3.02 billion for UF operations, representing 39 percent of the total, followed by UF Health (\$2.69 billion, 34%), technology licensing companies (\$1.03 billion, 13%), student spending (\$495 million, 6%), capital outlays (\$252 million, 3%), Direct Support Organizations (\$197 million, 3%), and visitor spending (\$165 million, 2%), as shown in Figure 5.

Labor Income is a component of value-added that represents all forms of employee compensation and benefits as well as self-employed (proprietor) income. Total labor income contributions to the State of Florida from UF

entities was estimated at \$5.33 billion, including \$2.26 billion for UF operations, \$1.86 billion for UF Health, and \$583 million for technology licensing (Table 13). Contributions to property income such as rents, royalties, interest, and dividends were estimated at \$2.06 billion, including \$659 million for UF operations, \$650 million for UF Health, and \$365 million for technology licensing companies. Business taxes on production and imports include sales, excise and fuel taxes, plus property taxes, fees and licenses paid to local, state and federal governments, but do not include personal income taxes. A large share of business taxes are generated through sales taxes on retail purchases. UF-related entities contributed an estimated \$442 million in business taxes in 2014-15, including \$154 million for UF Health, \$102 million for UF operations, \$82 million for technology licensing companies, and \$46 million for student spending.

Additional information on economic contribution estimates is provided for detailed categories within each major activity or entity in Table 14, and contributions by specific industry sector are provided in Appendix B.

Table 13. Summary of economic contributions of the University of Florida and related entities in the State of Florida, 2014-15

Entity / Activity	Expense or Revenue	Expense In-State, Margined	Expense In-State, Margined, Exogenous	Industry Output	Value Added	Labor Income	Property Income	Business Taxes	Employment (Fulltime, Part-time Jobs)
Million Dollars									
University Operations	2,599.5	2,235.8	882.7	3,850.7	3,019.8	2,258.5	659.2	102.1	76,120
Capital Outlays	240.6	202.6	197.0	503.2	251.5	151.3	82.6	17.7	3,411
UF Health Hospitals and Affiliates	1,836.9	1,659.8	1,594.9	4,605.9	2,667.8	1,863.6	650.4	153.8	32,846
Direct Support Organizations	193.5	193.5	36.2	260.1	196.9	120.4	57.8	18.8	1,363
Student Spending	666.7	483.9	172.9	793.8	494.8	252.8	195.7	46.3	8,269
Visitor Spending	253.3	187.4	46.9	272.6	165.4	97.2	47.3	20.9	2,955
Technology Licensing Companies	908.8	908.8	908.8	2,269.6	1,030.9	583.5	365.3	82.1	10,611
Total	<u>6,699.3</u>	<u>5,871.7</u>	<u>3,839.4</u>	<u>12,555.9</u>	<u>7,827.1</u>	<u>5,327.2</u>	<u>2,058.3</u>	<u>441.6</u>	<u>135,576</u>

Estimates include indirect and induced multiplier effects for expenditures funded from sources outside Florida.

Source: *IMPLAN* software and data (*IMPLAN* Group, LLC).

Figure 3. Industry output (revenue) contributions of the University of Florida and related entities in the State of Florida, 2014-15

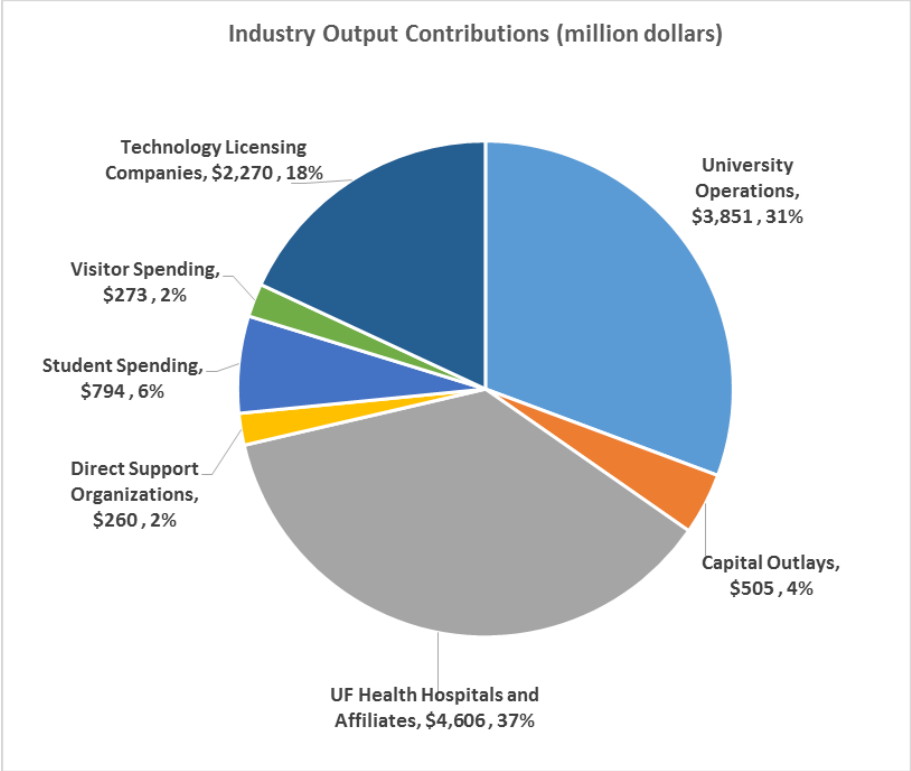


Figure 4. Employment contributions of the University of Florida and related entities in the State of Florida, 2014-15

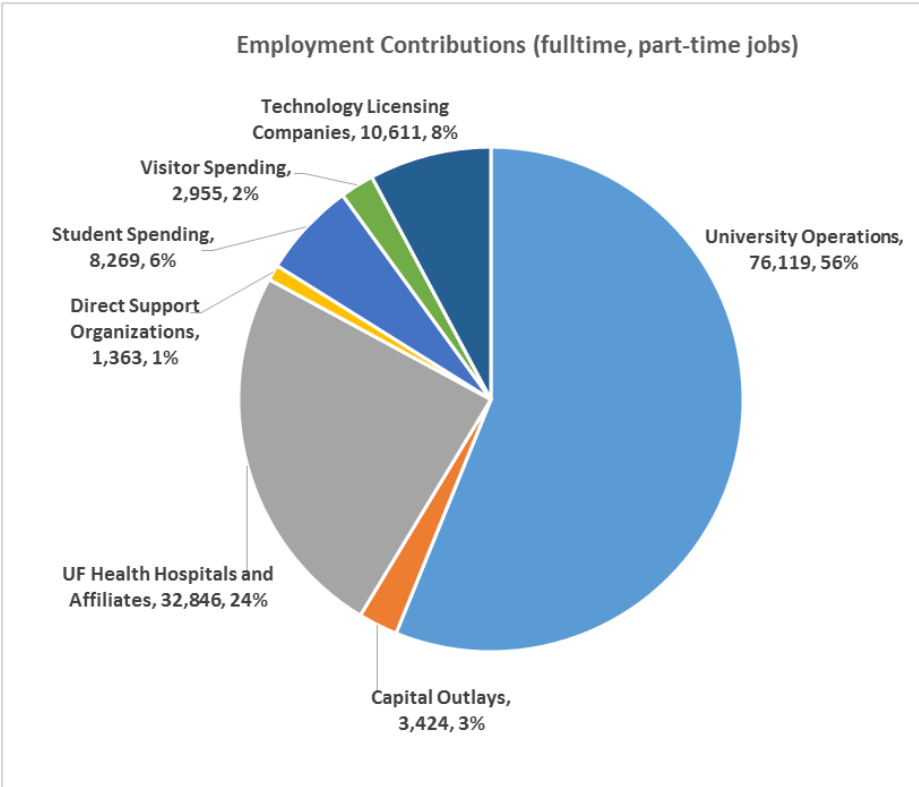


Figure 5. Value added (GDP) contributions of the University of Florida and related entities in the State of Florida, 2014-15

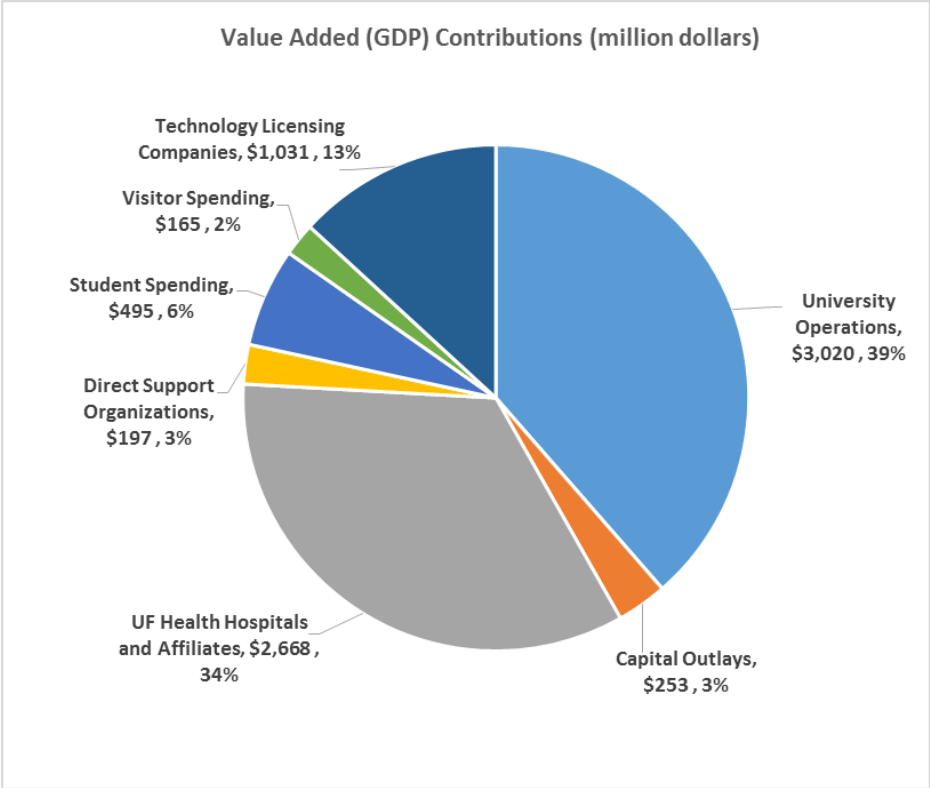


Table 14. Economic contributions detailed by activity and category for the University of Florida and related entities in the State of Florida, 2014-15

Activity / Category	Expenses	Expenses In-State, Margined, Exogenous	Industry Output	Value Added	Labor Income	Property Income	Business Taxes	Employ- ment (Fulltime and Part- time Jobs)
----- Million Dollars -----								
University Operations	2,599.5	882.7	3,850.7	3,019.8	2,258.5	659.2	102.1	76,120
Employee Compensation	1,811.8	722.4	3,151.7	2,613.9	1,982.9	564.5	66.5	70,157
Services and Supplies	495.8	101.7	442.2	260.5	185.2	56.9	18.5	4,226
Scholarships	83.9	33.1	143.2	88.3	63.5	19.7	5.1	1,267
Utilities	67.7	24.8	111.0	55.6	25.9	17.8	11.9	448
Non-Operating Expenses	5.8	0.6	2.6	1.5	0.9	0.4	0.1	21
Depreciation	134.5	0.0	0.0	0.0	0.0	0.0	0.0	0
Capital Outlays	240.6	197.0	503.2	251.5	151.3	82.6	17.7	3,411
New Construction	127.0	127.0	314.5	155.0	93.3	50.8	10.9	2,106
Renovation Construction	65.6	65.6	172.4	89.1	54.0	28.8	6.3	1,231
Small Asset Purchases	45.8	3.6	14.3	6.4	3.4	2.7	0.4	60
New Equipment	2.2	0.8	2.0	1.0	0.6	0.3	0.1	14
Direct Support Organizations	193.5	36.2	260.1	196.9	120.4	57.8	18.8	1,363
The University Athletic Association, Inc.	129.7	24.2	176.2	135.2	95.9	22.5	16.8	988
University of Florida Foundation, Inc.	36.3	6.8	47.8	35.2	13.9	20.2	1.1	143
Citrus Research and Development Foundation, Inc.	12.5	2.3	16.5	12.1	4.8	7.0	0.4	107
University of Florida Research Foundation, Inc.	4.2	0.8	5.5	4.1	1.6	2.3	0.1	36
University of Florida Development Corporation	3.0	0.6	4.0	2.9	1.2	1.7	0.1	26
Gator Boosters, Inc.	2.7	0.5	3.5	2.6	1.0	1.5	0.1	19
Florida 4-H Club Foundation, Inc.	1.8	0.3	2.3	1.7	0.7	1.0	0.1	15
Others (see below)	1.7	0.3	2.3	1.7	0.7	1.0	0.1	15
Citrus Research and Education Foundation, Inc.	1.2	0.2	1.5	1.1	0.4	0.6	0.0	10
Florida Veterinary Medicine Faculty Association, Inc.	0.4	0.1	0.5	0.3	0.2	0.1	0.0	5
UF Health Hospitals and Affiliates	1,836.9	1,594.9	4,605.9	2,667.8	1,863.6	650.4	153.8	32,846
Shands Teaching Hospital & Clinics, Inc.	1,092.0	946.7	2,721.6	1,564.9	1,082.1	392.5	90.3	20,049
Shands Jacksonville HealthCare, Inc.	549.6	476.5	1,369.9	787.6	544.6	197.6	45.5	10,269
University of Florida Jacksonville Physicians, Inc.	124.7	114.2	338.5	208.0	156.7	39.5	11.8	1,677
University of Florida Jacksonville Healthcare, Inc.	33.3	30.5	90.4	55.6	41.9	10.6	3.2	449
Florida Clinical Practice Association, Inc.	28.2	25.8	76.5	47.0	35.4	8.9	2.7	380
University of Florida Self-Insurance Program	9.5	0.0	6.3	2.9	1.5	1.1	0.3	1
Faculty Clinic, Inc.	1.0	0.9	2.7	1.6	1.2	0.3	0.1	14
Gator Care Health Management Corporation	0.6	0.1	0.8	0.4	0.2	0.2	0.0	3
Faculty Associates, Inc.	0.3	0.2	0.7	0.5	0.3	0.1	0.0	5
University of Florida Healthcare Education Insurance Company	-2.3	0.0	-1.5	-0.7	-0.4	-0.3	-0.1	1

Activity / Category	Expenses	Expenses In-State, Margined, Exogenous	Industry Output	Value Added	Labor Income	Property Income	Business Taxes	Employ- ment (Fulltime and Part- time Jobs)
----- Million Dollars -----								
Student Spending	666.7	172.9	793.8	494.8	252.8	195.7	46.3	8,269
Nonresident Students Living Off-Campus	229.0	170.2	475.2	290.0	156.5	107.8	25.7	4,366
Resident Students Living Off-Campus	402.0	0.0	295.7	191.0	86.8	84.7	19.5	3,591
Resident Undergraduate Students Living On-Campus	30.3	0.0	15.3	9.3	6.6	2.0	0.7	234
Nonresident Undergraduate Students Living On-Campus	5.3	2.7	7.6	4.5	2.9	1.3	0.4	78
Visitor Spending	253.3	46.9	272.6	165.4	97.2	47.3	20.9	2,955
Educational & Cultural Event Resident Nonaffiliated Visitors	149.9	0.0	117.2	71.8	41.6	19.8	10.4	1,441
Educational & Cultural Event Nonresident Visitors	34.8	27.2	76.6	45.9	27.4	13.7	4.8	713
Athletic Event Nonresident Visitors	31.4	19.7	55.5	33.4	19.9	9.9	3.5	516
Athletic Event Resident Nonaffiliated Visitors	37.1	0.0	23.2	14.4	8.3	3.9	2.2	285
Technology Licensing Companies	908.8	908.8	2,269.6	1,030.9	583.5	365.3	82.1	10,611
Progress Park (Alachua)	758.4	758.4	1,921.1	888.2	497.6	319.9	70.8	9,031
Other Florida Companies (OTL)	150.5	150.5	348.5	142.7	85.9	45.4	11.4	1,580
Grand Total	<u>6,699.3</u>	<u>3,839.4</u>	<u>12,555.9</u>	<u>7,827.1</u>	<u>5,327.2</u>	<u>2,058.3</u>	<u>441.6</u>	<u>135,576</u>

Estimates include indirect and induced multiplier effects for expenditures funded from sources outside Florida. Employment represents fulltime part-time jobs.

Other Direct Support Organizations include UF Historic St. Augustine, Inc., Treasure Coast Agricultural Research Foundation, Inc., Southwest Florida Research and Education Foundation, Inc., University of Florida Law Center Association, Inc., Florida Foundation Seed Producers, Inc

Source: *IMPLAN* software and data (*IMPLAN* Group, LLC).

Comparison of Statewide Economic Contributions for 2009-10 and 2014-15

Economic contributions for the University of Florida and related entities in fiscal year 2014-15 were compared to results from a previous study for 2009-10, with values for the earlier period adjusted for inflation to express in constant dollar terms. Between 2009-10 and 2014-15, overall expenditures increased by 2.1 percent, and estimated contributions increased for industry output (11.9%), value added (17.3%), labor income (20.7%), property income (53.6%), and employment (13.8%), however, business tax contributions decreased 17.0 percent (Table 15). Contributions from university operations increased substantially for output (52.0%), value added (91.2%) and employment (66.1%). Contributions from technology licensing companies also increased sharply for output (45.6%), value added (42.2%), and employment (31.0%). Output and employment contributions decreased for student spending (-20.4%, -23.4%), capital outlays (-23.4%, -37.7%), visitor spending (-13.5%, -23.3%), and UF Health (-6.0%, -22.5%). Direct Support Organizations had a decrease in employment contributions (-9.5%) for a small increase in output (0.3%).

Table 15. Percent change in economic contributions for the University of Florida and related entities in fiscal year 2014-15 compared to 2009-10

Entity / Activity	Expense	Industry Output	Value Added	Labor Income	Property Income	Business Tax	Employment
University Operations	29.9%	52.0%	91.2%	135.1%	609.0%	-26.5%	66.1%
Capital Outlay	-45.5%	-23.4%	-30.4%	-43.7%	11.1%	-3.3%	-37.7%
UF Health Hospitals and Affiliates	-19.7%	-6.0%	-8.5%	-9.8%	-3.0%	-14.1%	-22.5%
Direct Support Organizations	-0.6%	0.3%	23.9%	-5.5%	204.6%	49.3%	-49.5%
Technology Licensing Companies	53.9%	45.6%	42.2%	24.4%	79.0%	58.5%	31.0%
Student Spending	-15.7%	-20.4%	-30.7%	-33.7%	-16.0%	-53.4%	-23.4%
Visitor Spending	0.1%	-13.5%	-24.5%	-30.9%	3.1%	-35.5%	-23.3%
Grand Total	2.1%	11.9%	17.3%	20.7%	53.6%	-17.0%	13.8%

Values for 2009-10 adjusted expressed in 2014 dollars using a price deflator of 1.087 calculated from the U.S. Gross Domestic Product Implicit price deflator (U.S. Bureau of Economic Analysis).

A variety of issues complicate the comparison of the values estimated in this study with those of the previous study for 2009-10. The higher estimates for technology licensing companies was partly due to somewhat broader coverage of companies considered, including all companies licensed in the State of Florida, as well as Progress Park. The lower estimates for visitor spending were due to a more conservative treatment of one-half visitor days for some kinds of visitors. More refined estimates of the share of general revenues to the University sourced from outside the state was lower in 2014-15 (39% vs 48%), which resulted in lower indirect and induced multiplier effects for University operations spending. Finally, the *IMPLAN* software has different multipliers for some of the key industry sectors evaluated that reflect changes in the overall economy of the state.

Economic Contributions in Alachua County, Florida

Economic contributions of the University of Florida and related entities within Alachua County, Florida, the location of the main campus in Gainesville, were estimated using adjusted employment and spending data to account for activities located outside of Alachua County. Faculty and staff employees and compensation were deducted for UF-IFAS Research and Education Centers and county extension offices, and for UF-Health Shands Hospital in Jacksonville. Direct Support Organizations, student and visitor spending, and technology licensing companies located in Progress Park (Alachua), were considered to provide economic contributions within Alachua County. An IMPLAN model for Alachua County was created to provide regional economic multipliers and regional purchase coefficients specifically for the county.

Economic contributions of UF and related entities in Alachua County are summarized in Table 16. Total expenditures or revenues made within the county in 2014-15 were estimated at \$3.67 billion, of which \$2.09 billion represented new final demand from out-of-state sources. Industry output contributions in the county were \$5.99 billion, including \$2.76 billion for UF operations, \$2.09 billion for UF Health, \$485 million for student spending, \$327 million for capital outlays, \$131 million for visitor spending, \$151 million for Direct Support Organizations, and \$46 million for technology licensing companies. Employment contributions of UF in Alachua County totaled 93,937 fulltime and part-time jobs, which represented 59.1 percent of the county workforce in 2014, and value added contributions in the county were \$4.21 billion, representing 36.9 percent of county GDP in 2014. The economic contributions represented 69.3 and 53.8 percent, respectively, of the statewide employment and value added by UF entities. Conversely, 46.2 percent of value added and 30.7 percent of employment contributions by UF entities occurred outside of Alachua County.

Table 16. Summary of economic contributions of the University of Florida and related entities in Alachua County, Florida, 2014-15

Activity	Expenses In-County and Margined	Expenses In-County, Margined Exogenous	Industry Output (Revenues)	Value Added (GDP)	Labor Income	Property Income	Business Taxes	Employment (Fulltime and Part-time Jobs)
Million Dollars								
University Operations	1,894.8	748.1	2,762.2	2,305.0	1,775.3	472.5	57.3	65,486
Capital Outlays	168.0	166.2	327.1	158.8	96.0	52.3	10.5	2,365
UF Health Hospitals and Affiliates	1,015.2	973.7	2,089.7	1,229.7	885.1	283.2	61.4	16,199
Direct Support Organizations	123.7	23.1	151.1	109.1	60.1	32.6	16.4	1,061
Student Spending	344.7	123.7	485.0	312.3	154.9	125.3	32.1	5,764
Visitor Spending	100.4	26.2	131.2	74.9	42.8	18.5	13.7	1,728
Technology Licensing Companies	24.7	24.7	45.7	20.7	13.0	6.3	1.4	1,324
Grand Total	<u>3,671.4</u>	<u>2,085.8</u>	<u>5,992.0</u>	<u>4,210.5</u>	<u>3,027.2</u>	<u>990.6</u>	<u>192.7</u>	<u>93,927</u>

Estimates include indirect and induced multiplier effects.

Source: *IMPLAN* software and data (*IMPLAN* Group, LLC).

Return on Investment of the State of Florida Higher Education *Preeminence Initiative*

An additional feature of this study was to evaluate the return on investment (ROI) to state funding for hiring of faculty under the *Preeminence Initiative*. The initiative began in 2014 with special funding made available by the Florida Legislature to the State University System of Florida. The number of faculty hired, research awards received, total salaries and benefits paid, and the calculated return on investment are summarized by college and department in Table 17, and by initiative (program) in Table 18. A total of 92 new faculty members have been hired under this program, of which 89 have started working at UF, and 74 have received research funding to-date as of March 30, 2016. Salaries paid to-date were estimated based on the starting annual salary and the number of days worked since being hired. Total salaries and benefits paid to-date amounted to \$17.6 million, while research awards received to-date were valued at \$55.3 million. The ROI was calculated as the ratio of research awards to faculty salaries/benefits. The overall ROI for all *Preeminence* faculty hires was 3.14, i.e. research awards were 3.14 times the value of faculty salaries/benefits paid. The highest returns on investment were realized by the Colleges of Dentistry (8.03), Veterinary Medicine (7.28), Pharmacy (5.86), Engineering (5.04), Public Health and Health Professions (4.37), Health and Human Performance (3.40), Medicine (3.39), and the Florida Museum of Natural History (3.02) (Table 17). The initiatives with the highest ROI were *Smart Polymers Nanomedicine* (13.86), *Mucosal Immunology* (12.85), *Drug Discovery and Development* (7.11), *One Health Initiative* (6.69), *Cybersecurity* (6.12) and *Human Centered Computing* (6.00) (Table 18). Note that some colleges and initiatives had only one *Preeminence* faculty member hired, so the results may be less reliable. Also, the analysis did not consider the costs for “start-up” packages and associated junior research faculty hired accompanying the *Preeminence* faculty positions, since these costs were not necessarily funded by the state. In addition, the analysis did not attempt to calculate a discounted present value of research awards received for projects that may span a period of several years. A detailed listing of individual faculty hired and the ROI for each is provided in Appendix D.

Table 17. Summary of *Preeminence Initiative* faculty hired, sponsored research awards received, salaries and benefits paid to-date, and return on investment, by University of Florida colleges and departments

College / Department	Number of Faculty Hired	Awards Received	Salary and Benefits Paid	Return On Investment
Agricultural & Life Sciences (IFAS)	13	\$3,435,647	\$2,019,860	1.70
Agricultural & Biological Engineering	1	\$333,510	\$58,235	5.73
Animal Sciences	2	\$36,187	\$212,829	0.17
Food and Resource Economics	1	\$325,000	\$418,426	0.78
Horticultural Sciences	1	\$407,939	\$98,254	4.15
Microbiology and Cell Science	3	\$331,784	\$402,553	0.82
Plant Pathology	2	\$155,884	\$555,043	0.28
Soil and Water Science	1			
Wildlife Ecology and Conservation	2	\$1,845,343	\$274,521	6.72
Arts	2	\$48,943	\$279,167	0.18
Digital Worlds Institute	1	\$48,943	\$239,288	0.20
School of Art & Art History	1		\$39,879	0.00
Dentistry	1	\$791,557	\$98,630	8.03
Oral Biology	1	\$791,557	\$98,630	8.03
Education	3	\$910,235	\$761,144	1.20
School of Special Education, School Psychology, & Early Childhood Studies	2	\$847,447	\$501,637	1.69
School of Teaching and Learning	1	\$62,788	\$259,507	0.24
Engineering	20	\$21,555,824	\$4,276,518	5.04
Biomedical Engineering	3	\$7,406,681	\$673,923	10.99
Computer and Information Science and Engineering	7	\$7,875,934	\$1,590,280	4.95
Electrical and Computer Engineering	4	\$3,487,332	\$833,649	4.18
Industrial and Systems Engineering	2	\$1,574,668	\$455,929	3.45
Materials Science and Engineering	1	\$585,918	\$243,288	2.41
Mechanical and Aerospace Engineering	3	\$625,291	\$479,447	1.30
Florida Museum of Natural History	3	\$1,944,163	\$643,673	3.02
Health and Human Performance	1	\$876,320	\$257,978	3.40
Applied Physiology & Kinesiology	1	\$876,320	\$257,978	3.40
Journalism & Communications	2	\$302,111	\$555,296	0.54
Advertising	1	\$302,111	\$312,008	0.97
Journalism	1		\$243,288	0.00
Law	1		\$405,479	0.00
Liberal Arts & Sciences	17	\$2,137,482	\$2,758,698	0.77
Anthropology	2	\$464,106	\$316,509	1.47
Biology	1		\$61,495	0.00
Chemistry	3	\$473,260	\$292,025	1.62
English	2		\$420,676	0.00

College / Department	Number of Faculty Hired	Awards Received	Salary and Benefits Paid	Return On Investment
Geography	2	\$46,032	\$621,821	0.07
Geology	1		\$31,959	0.00
History	1			
Math	1	\$41,392	\$89,901	0.46
Physics	1	\$44,000	\$295,619	0.15
Political Science	1	\$14,250	\$216,108	0.07
Psychology	1	\$202,503	\$101,628	1.99
Statistics	1	\$851,940	\$310,959	2.74
Medicine	12	\$9,506,022	\$2,806,038	3.39
Biochemistry & Molecular Biology	2	\$270,628	\$257,712	1.05
Health Outcomes and Policy	2	\$922,877	\$767,693	1.20
Medicine	2	\$1,803,904	\$187,397	9.63
Pharmacology and Therapeutics	2	\$4,923,213	\$864,747	5.69
Physiological & Functional Genomics	1	\$188,781	\$62,466	3.02
Physiology and Functional Genomics	1	\$509,453	\$86,712	5.88
Psychiatry	1	\$203,357	\$171,389	1.19
Emerging Pathogens Institute/Molecular Genetics and Microbiology	1	\$683,809	\$407,922	1.68
Nursing	1	\$263,537	\$236,301	1.12
Family, Community & Health System Science	1	\$263,537	\$236,301	1.12
Pharmacy	5	\$5,337,969	\$910,411	5.86
Medicinal Chemistry	1	\$2,272,714	\$230,685	9.85
Pharmaceutics	2	\$444,801	\$255,205	1.74
Pharmacodynamics	1	\$1,894,258	\$162,329	11.67
Pharmacotherapy and Translational Research	1	\$726,196	\$262,192	2.77
Public Health & Health Professions	8	\$5,207,501	\$1,192,575	4.37
Physical Therapy	1	\$1,981,294	\$281,096	7.05
Clinical and Health Psychology	2	\$2,165,794	\$251,233	8.62
(blank)	1	\$91,500	\$47,123	1.94
Medicine/Biostatistics	3	\$664,809	\$428,630	1.55
Medicine/Epidemiology	1	\$304,104	\$184,493	1.65
Veterinary Medicine	3	\$2,986,584	\$410,411	7.28
Infectious Diseases and Pathology	2	\$1,531,267	\$161,644	9.47
Toxicology/Physiological Sciences	1	\$1,455,317	\$248,767	5.85
Grand Total	92	\$55,303,895	\$17,612,179	3.14

*Results reflect salaries and research awards received as of March 30, 2016.

Return on investment (ROI) reflects total award amount divided by faculty salary and benefits paid to-date.

Source: UF Office of Sponsored Programs.

Table 18. Summary of *Preeminence Initiative* faculty hired, sponsored research awards received, faculty salaries/benefits paid to-date, and return on investment, ranked by initiative

Initiative	Number of Faculty Hired	Awards Received	Salary and Benefits Paid	Return on Investment
African Studies: Public Health & Social Change	1			
Art	1		\$39,879	0.00
Autonomous Systems	1	\$404,900	\$199,798	2.03
Biomedical Informatics	5	\$2,402,605	\$1,422,323	1.69
Burkholdaria	2	\$775,309	\$455,046	1.70
Chemical Innovation for Cancer Research	1			
Corporate Law	1		\$405,479	0.00
Creative Writing	2		\$420,676	0.00
Cybersecurity	4	\$4,816,314	\$787,185	6.12
Drug Discovery & Development	4	\$4,611,773	\$648,219	7.11
Food Hub	6	\$794,486	\$1,002,907	0.79
Genomic Medicine	1	\$75,483	\$86,712	0.87
Historical & Environmental Archeology	1	\$64,791	\$319,604	0.20
Human Centered Computing (Clemson Team)	3	\$5,448,945	\$908,620	6.00
Informatics for Engineered Systems and the Physical Systems	2	\$629,918	\$538,907	1.17
Informatics for Life Sciences	4	\$2,241,645	\$793,265	2.83
Informatics in Social Science Humanities and Education	1	\$14,250	\$216,108	0.07
Informatics Institute (Director)	1	\$851,940	\$310,959	2.74
Informatics Techniques and Technologies	4	\$1,836,451	\$643,550	2.85
Latin American Development	2	\$11,498	\$368,841	0.03
Mathematical Modeling of Diseases	2	\$34,534	\$387,695	0.09
Metabolomics	5	\$3,220,619	\$678,493	4.75
Mucosal Immunology	2	\$1,654,802	\$128,767	12.85
Neuroscience and Brain	9	\$9,583,606	\$2,169,056	4.42
One Health Initiative	4	\$3,135,686	\$469,041	6.69
Online Learning Institute	4	\$250,237	\$835,370	0.30
Optimizing Early Childhood	4	\$1,594,429	\$749,034	2.13
Plant Genomics	2	\$464,034	\$387,501	1.20
Renewable Energy and Storage	3	\$578,037	\$541,536	1.07
Skeletal Muscle Biology	2	\$1,385,773	\$344,690	4.02
Smart Polymers Nanomedicine	3	\$6,755,549	\$487,462	13.86
Social Network Analysis	1	\$464,106	\$243,288	1.91
STEM Translational Communication	1	\$302,111	\$312,008	0.97
UF Biodiversity	3	\$900,066	\$310,160	2.90
Grand Total	<u>92</u>	<u>\$55,303,895</u>	<u>\$17,612,179</u>	<u>3.14</u>

Appendix A: University of Florida Construction Projects in 2014-15

Description	Cost (Million Dollars)
New Construction	125.45
Austin Cary - Conference Center	1.85
Balm Office/Lab Addition Building 5201	0.39
Center for Environmental & Human Toxicology Building 471 Addition	0.98
Center for Outdoor Recreation & Education (CORE) Building 401	0.10
Chemistry/Chemical Biology Building	15.98
Cypress Hall 2015	0.32
ENT/Ophthalmology Clinics Facility	0.01
Harrell Medical Education Building	33.39
Health Science Center addition of Modular Buildings	0.02
Institute on Aging/Clinical Translational Research Building	0.04
NEXUS Engineering Addition	0.39
PK Yonge Middle and High School Expansion for PK Yonge	0.53
Rabon Steam Boiler Design/Installation	0.04
Reitz - Pollo Tropical Seating	0.28
Reitz Union Expansion and Renovation	50.71
Single Student Housing 2015	16.61
VMTH Clinical Simulation Lab Addition	3.80
Renovation Construction	61.81
3rd Floor HVAC Upgrade, McCarty D Building 498	0.35
Air Handling Unit 1 (AHU) Replacement, Material Engineering Building 719	0.12
Air Handling Units (AHU's) Replacement, Fire Sprinkler Installation, and Reroof -Dental Science Building	1.83
Air Handling Units (AHU's) Replacement, Yon Hall 2nd & 3rd Floors, Building 158	1.65
Basic Sciences Building - Ground Floor Renovation	0.00
Broward Hall - Bathrooms, Lounges, Apartment Renovation	6.49
Broward Hall - Electrical Upgrades	0.01
Broward Hall - Fire Sprinkler & Alarm Systems	0.38
Buckman Air Conditioning Design & Installation	2.07
Buckman Hall Bathroom, Kitchen, and Plumbing Renovation	1.45
Buckman Hall Window Replacement	1.01
Cast Iron Piping in DSB Replacement	0.46
Chilled Water Plant Boiler Replacement	3.93
Computer Sciences/Engineering Building 42, Active Learning Center	0.08
Corry Village Building 277 Renovation	2.16
Corry Village Building 278 Renovation	2.39
Corry Village Building 282 Renovation	2.15
Corry Village Building 283 Renovation	2.19
Corry Village Building 284 Renovation	2.00
Electrical Sub Station #10	1.64
Energy Efficiencies for HVAC, Roof and Building Automation Controls-Entomology and Nematology	5.81
FMNH Discovery Room, Powell Hall Building 308	0.03
Gator Corner Dining Addition	1.62
Government House Rehabilitation Building 3900 - Phase II	1.15

Description	Cost (Million Dollars)
Graham Commons Building 589 Electrical Distribution	0.66
Key Complex Buildings 1002, 1003, 1004, 1005 & 1009 Renovations	0.52
Matherly Hall Air Handling Units 1 and 2 (AHU's) Replacement	0.97
Nano Clean Room Fit Out	0.01
Necropsy, Anatomical Pathology and Clinical Pathology areas Blg 215 Renovation	1.22
Newell Hall Renovation	0.35
Rabon Plant SL3 Piping Repair	0.47
Renovate Marston Sciences Library - Smathers Map Room	0.89
Renovation Marston Library	3.72
Server Room Upgrades, Main Housing Office Building 753 & Hume Commons Building 576	0.45
St. Augustine Government House Exterior Rehabilitation	0.44
Stephen O'Connell Center Renovation and Addition	4.65
Stetson Medical Science Building (Pulmonary) Lab Suite Renovation	0.92
Stetson Medical Science Building, Lab Suite Renovation of Rooms M5-32 to M5-41	0.13
Stetson Medical Sciences Building 445 Lab Exhaust Correction	0.75
Thomas Hall Building 17 Air Conditioning Replacement	1.62
Thomas Hall Window Replacement	1.38
Weil Plant Chiller Replacement	1.01
Yon Hall, Renovate Room 012	0.68
New Space & Renovation	1.88
Joint Use Library Storage Facility	1.52
Paul H. Everett Building 7712 Addition & Renovation	0.36
New Equipment	3.03
MIRADAS Telescopes (outside U.S.)	0.73
Chilled Water Plant #10	1.58
Campus Security System Enhancement	0.72
Grand Total	<u>192.17</u>

Appendix B: Industry Sector Level Economic Contributions and Regional Multipliers for the University of Florida and Related Entities in Florida, 2014-15

<i>IMPLAN</i> Industry Sector	Expense or Revenue Amount (M\$)	Expense In-State, Margined, Exogenous (M\$)	Industry Output (M\$)	Value Added (M\$)	Employment (Jobs)	Output Multiplier Total Effects (\$/\$)	Employment Multiplier Total Effects (jobs/M\$)
Hospitals	1,641.6	1,423.2	4,091.5	2,352.5	30,318	2.838	21.0
Employment and payroll of state government education	1,837.8	725.6	3,165.4	2,625.3	70,333	2.830	30.5
Biological product (except diagnostic) manufacturing	485.0	485.0	1,198.0	561.3	5,745	2.470	11.8
Pharmaceutical preparation manufacturing	228.3	225.6	611.6	280.9	2,735	2.708	12.1
Offices of physicians	191.6	173.3	516.2	317.3	2,579	2.927	22.0
Real estate	248.6	93.0	414.6	261.6	2,918	2.785	20.4
Maintenance and repair construction of nonresidential structures	122.2	104.1	289.1	148.1	2,044	2.603	18.6
Commercial Sports Except Racing	129.7	24.2	176.2	135.2	988	2.917	22.0
Transit and ground passenger transportation	105.8	29.0	151.8	84.4	1,836	2.747	27.6
All other food and drinking places	91.8	32.5	148.9	93.3	2,487	2.755	35.7
Pesticide and other agricultural chemical manufacturing	63.6	63.6	146.5	52.7	554	2.304	8.7
Junior colleges, colleges, universities, and professional schools	76.6	30.2	130.7	77.9	1,107	2.788	22.6
Construction of new educational and vocational structures	55.9	55.9	129.7	62.1	826	2.318	14.8
Marketing research and all other miscellaneous professional, scientific, and technical services	73.4	24.8	105.6	61.9	1,281	2.870	30.0
Hotels and motels, including casino hotels	74.4	18.5	104.8	66.1	913	2.849	23.5
Grantmaking, giving, and social advocacy organizations	63.4	11.9	83.4	61.4	370	2.687	19.2
Soybean and other oilseed processing	41.3	41.3	71.7	18.6	209	1.737	5.1
Retail - Food and beverage stores	151.0	13.7	67.9	43.1	857	2.900	30.2
Maintenance and repair construction of residential structures	22.3	22.3	60.0	30.6	429	2.691	19.2
Electric power transmission and distribution	31.3	12.4	55.8	28.0	166	2.983	12.5
Retail - Electronics and appliance stores	86.6	9.0	44.2	27.6	528	3.043	30.6
Construction of other new residential structures	16.6	16.6	43.6	19.5	271	2.625	16.3
Other amusement and recreation industries	29.8	7.3	40.7	23.5	523	2.774	28.7
Electromedical and electrotherapeutic apparatus manufacturing	15.8	15.8	39.6	18.6	198	2.509	12.5
Water, sewage and other systems	21.9	8.7	39.4	20.3	211	3.024	18.8
Management consulting services	23.8	8.1	34.9	20.5	294	2.926	24.0
Automotive equipment rental and leasing	24.4	6.1	34.6	22.1	176	2.771	17.5
Other personal services	20.2	5.6	29.8	18.7	806	2.979	53.9
Wholesale trade	104.6	6.5	28.8	17.9	163	2.901	18.8
Book publishers	78.2	5.9	27.1	19.0	118	2.598	14.8
Aircraft engine and engine parts manufacturing	9.8	9.8	25.8	10.8	116	2.620	11.8
Retail - Clothing and clothing accessories stores	34.9	5.2	25.7	15.7	274	2.872	26.8
Scientific research and development services	17.6	6.5	24.8	13.0	151	2.972	19.5
Dental equipment and supplies manufacturing	10.7	8.6	21.7	10.4	118	2.403	13.4
Insurance carriers	21.7	3.7	21.5	10.7	78	2.842	16.1
Surgical and medical instrument manufacturing	8.2	7.9	21.3	10.9	115	2.680	14.4
Medicinal and botanical manufacturing	7.2	7.2	19.5	8.7	94	2.725	13.1

<i>IMPLAN</i> Industry Sector	Expense or Revenue Amount (M\$)	Expense In-State, Margined, Exogenous (M\$)	Industry Output (M\$)	Value Added (M\$)	Employ- ment (Jobs)	Output Multiplier Total Effects (\$/\$)	Employ- ment Multiplier Total Effects (jobs/M\$)
Custom computer programming services	13.8	4.4	18.7	11.1	126	2.948	21.4
Medical and diagnostic laboratories	5.7	5.7	16.0	9.6	132	2.831	23.3
Animal production, except cattle and poultry and eggs	9.6	3.8	15.5	11.7	195	2.551	27.5
General and consumer goods rental except video tapes and discs	10.4	3.3	14.7	9.9	133	2.944	24.9
Services to buildings	9.6	3.0	13.1	7.8	276	2.783	44.3
Commercial and industrial machinery and equipment repair and maintenance	9.2	2.9	12.5	8.6	90	2.755	20.4
Construction of other new nonresidential structures	4.8	4.8	12.0	6.4	87	2.500	18.1
Electronic computer manufacturing	5.0	5.0	11.5	4.0	43	2.277	8.5
Personal and household goods repair and maintenance	7.5	2.7	11.4	7.7	148	2.730	30.0
Retail - General merchandise stores	27.6	1.9	11.1	7.0	134	2.956	29.3
Ophthalmic goods manufacturing	3.7	3.7	10.3	5.9	59	2.751	15.8
Construction of new commercial structures, including farm structures	5.0	3.2	9.5	5.0	71	2.409	17.9
Advertising, public relations, and related services	6.8	2.2	9.2	5.4	55	2.756	18.4
Other miscellaneous chemical product manufacturing	4.0	4.0	9.1	3.6	40	2.272	9.8
Data processing, hosting, and related services	17.8	2.1	9.1	4.0	47	2.841	17.4
Wireless telecommunications carriers (except satellite)	4.4	2.5	7.7	3.4	31	2.750	12.6
In-vitro diagnostic substance manufacturing	2.6	2.6	7.1	3.6	40	2.712	15.1
Internet publishing and broadcasting and web search portals	2.3	2.3	6.5	2.9	36	2.832	15.6
Business and professional associations	5.8	1.5	6.5	4.8	40	2.720	18.4
Lessors of nonfinancial intangible assets	3.1	2.0	6.2	3.6	29	2.732	14.2
Postal service	3.4	1.4	6.1	3.4	59	2.966	26.4
Computer systems design services	2.0	2.0	6.1	3.7	49	2.991	23.9
Private households	3.4	1.3	5.9	4.9	199	2.902	67.3
Analytical laboratory instrument manufacturing	19.6	1.4	5.3	2.0	24	2.354	12.6
Wired telecommunications carriers	5.2	1.2	4.9	2.4	21	2.637	14.2
Office administrative services	3.4	1.1	4.8	3.3	61	2.916	31.2
Semiconductor machinery manufacturing	1.9	1.9	4.0	1.5	18	2.127	9.7
Truck transportation	3.1	0.9	3.8	1.7	27	2.569	18.9
Waste management and remediation services	2.8	0.9	3.7	1.8	22	2.680	17.6
Natural gas distribution	2.3	0.9	3.6	1.5	13	2.382	11.7
Retail - Building material and garden equipment and supplies stores	5.3	0.7	3.2	2.0	30	2.915	25.3
Printing	7.3	0.7	2.8	1.3	20	2.483	18.3
Architectural, engineering, and related services	1.7	0.6	2.8	1.5	21	2.947	22.6
Computer terminals and other computer peripheral equipment manufacturing	7.1	0.7	2.7	0.9	9	2.356	10.2
Automotive repair and maintenance, except car washes	1.7	0.6	2.6	1.8	25	2.767	24.6
Other basic inorganic chemical manufacturing	0.9	0.9	2.2	0.9	9	2.328	9.8
Electronic and precision equipment repair and maintenance	1.3	0.5	2.1	1.3	17	2.869	22.4
Legal services	1.3	0.5	2.1	1.4	14	2.908	20.8
Office furniture, except wood, manufacturing	6.6	0.5	1.9	0.7	8	2.312	12.3
News syndicates, libraries, archives and all other information services	0.9	0.9	1.8	0.7	8	2.121	9.7

<i>IMPLAN</i> Industry Sector	Expense or Revenue Amount (M\$)	Expense In-State, Margined, Exogenous (M\$)	Industry Output (M\$)	Value Added (M\$)	Employ- ment (Jobs)	Output Multiplier Total Effects (\$/\$)	Employ- ment Multiplier Total Effects (jobs/M\$)
Business support services	1.2	0.4	1.8	1.1	24	2.857	33.0
Retail - Gasoline stores	7.9	0.4	1.6	1.0	18	2.943	28.2
Other educational services	0.6	0.6	1.6	1.0	21	2.837	37.5
Other computer related services, including facilities management	0.5	0.5	1.5	0.9	10	2.894	20.8
Monetary authorities and depository credit intermediation	1.2	0.3	1.3	0.8	8	2.862	19.7
Environmental and other technical consulting services	0.4	0.4	1.2	0.7	11	3.020	28.8
Motorcycle, bicycle, and parts manufacturing	0.6	0.6	1.1	0.4	5	1.923	8.2
Glass product manufacturing made of purchased glass	0.4	0.4	1.1	0.5	7	2.503	15.0
Periodical publishers	2.3	0.3	1.1	0.5	6	2.685	16.6
Automatic environmental control manufacturing	0.4	0.4	1.0	0.5	6	2.343	13.9
Couriers and messengers	0.7	0.2	0.9	0.4	8	2.637	23.4
Industrial process variable instruments manufacturing	0.3	0.3	0.8	0.3	4	2.374	12.5
Air conditioning, refrigeration, and warm air heating equipment manufacturing	1.5	0.4	0.7	0.3	4	2.028	9.9
All other food manufacturing	0.3	0.3	0.7	0.3	4	2.329	13.0
Concrete block and brick manufacturing	0.3	0.3	0.7	0.4	4	2.436	14.0
Cable and other subscription programming	0.7	0.2	0.7	0.3	2	2.524	12.0
Irradiation apparatus manufacturing	2.9	0.2	0.6	0.2	2	2.225	9.6
Specialized design services	0.2	0.2	0.6	0.4	6	2.840	28.6
Metal tank (heavy gauge) manufacturing	0.3	0.3	0.6	0.3	3	2.119	12.0
All other industrial machinery manufacturing	0.2	0.2	0.6	0.3	3	2.282	13.3
Veterinary services	0.4	0.1	0.5	0.3	5	2.701	23.1
Industrial gas manufacturing	0.9	0.1	0.5	0.2	2	2.412	10.0
Other concrete product manufacturing	0.2	0.2	0.5	0.2	3	2.465	16.1
Air purification and ventilation equipment manufacturing	0.2	0.2	0.5	0.2	3	2.083	12.1
Accounting, tax preparation, bookkeeping, and payroll services	0.3	0.1	0.5	0.3	4	2.839	24.7
Other support services	0.3	0.1	0.4	0.2	5	2.872	30.0
Capacitor, resistor, coil, transformer, and other inductor manufacturing	0.2	0.2	0.4	0.2	3	2.275	14.7
Motor vehicle gasoline engine and engine parts manufacturing	3.0	0.1	0.3	0.1	1	2.067	9.0
Audio and video equipment manufacturing	1.9	0.1	0.3	0.1	1	2.367	11.5
Greenhouse, nursery, and floriculture production	0.1	0.1	0.3	0.2	2	2.667	22.0
Travel arrangement and reservation services	0.2	0.1	0.3	0.1	2	2.836	19.9
Dry-cleaning and laundry services	0.1	0.1	0.2	0.1	3	2.786	30.1
Other cut and sew apparel manufacturing	0.7	0.0	0.1	0.1	1	2.434	21.4
Wood office furniture manufacturing	0.4	0.0	0.1	0.1	1	2.522	16.1
Food product machinery manufacturing	0.2	0.0	0.1	0.1	1	2.363	13.3
Farm machinery and equipment manufacturing	0.8	0.0	0.1	0.0	0	1.931	8.3
Retail - Sporting goods, hobby, musical instrument and book stores	0.1	0.0	0.0	0.0	1	2.927	33.4
Construction machinery manufacturing	0.6	0.0	0.0	0.0	0	1.951	8.0
Handtool manufacturing	0.2	0.0	0.0	0.0	0	2.396	14.7

<i>IMPLAN</i> Industry Sector	Expense or Revenue Amount (M\$)	Expense In-State, Margined, Exogenous (M\$)	Industry Output (M\$)	Value Added (M\$)	Employment (Jobs)	Output Multiplier Total Effects (\$/\$)	Employment Multiplier Total Effects (jobs/M\$)
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	0.0	0.0	0.0	0.0	0	2.510	24.9
Boat building	0.1	0.0	0.0	0.0	0	2.307	12.9
Sporting and athletic goods manufacturing	0.2	0.0	0.0	0.0	0	2.409	14.7
Travel trailer and camper manufacturing	0.0	0.0	0.0	0.0	0	1.951	10.4
All other transportation equipment manufacturing	0.2	0.0	0.0	0.0	0	1.871	7.6
Prefabricated metal buildings and components manufacturing	0.1	0.0	0.0	0.0	0	2.032	11.8
Facilities support services	0.0	0.0	0.0	0.0	0	2.781	19.5
Office supplies (except paper) manufacturing	0.0	0.0	0.0	0.0	0	2.450	14.8
Musical instrument manufacturing	0.1	0.0	0.0	0.0	0	2.522	20.1
Broadcast and wireless communications equipment manufacturing	0.0	0.0	0.0	0.0	0	2.339	12.0
Other federal government enterprises	0.0	0.0	0.0	0.0	0	2.475	15.1
Other state government enterprises	0.0	0.0	0.0	0.0	0	0.000	0.0

Values are given in million dollars.

Appendix C: Florida Companies Licensing University of Florida Technologies

Company Name	Employment	Product / Service
<u>Located in Progress Park, Alachua, FL</u>		
AGTC	60	Genetic technologies for disease treatment
Applied Food Technologies	5	DNA-based species identification diagnostics
Avekshan	4	Neuropsychiatric drugs
AxoGen	56	Nerve tissue regeneration
Banyan BioMarkers and sublets	1	Blood biomarkers
BioD	2	Placental tissue products
CansbioLife	1	Blood plasma
Captozyme	2	Food enhancing enzymes
EigenChem	6	Biotechnology
Ffame	28	Molecular technology
Florida Biologix 2	120	Cgmp Manufacturing & Testing Services
FMC Dialysis Center	14	Dialysis products and services
GainBiotech	1	Biotechnology
GeneAidyx	12	Plasmid dna purification
Hydrosphere Research, Inc.	10	Toxicity testing
Inter-Med, Inc.	25	Dental products
Medosome Biotec, LLC	2	Biotechnology
MLM Biologics	6	Biotechnology consulting services
Nanosonic Products	12	Pharmaceuticals
Nanotherapeutics	130	Biopharmaceutical products
NCF Diagnostics & DNA Technologies	3	Biotechnology
NovaBone Products LLC	17	Calcium phospho silicate product
Oceanyx	2	Neurodiagnostic Services
Oragenics	4	Antibiotics drugs
Particle Solutions, LLC	2	Controlled porous and doped silica and glass parts
Prometheon	3	Insulin patch
RTI Biologics	545	Artificial human organs
Syngenta	26	Agrichemicals and seeds
Tucker Davis Technologies, Inc.	32	Products for Neuroscience Research
UF Animal Care Services	4	Animal care services
UF Biotility	3	Education and training
UF Sid Martin Biotechnology Incubator	7	Life sciences, biomedical research, medicine, and chemical sciences
Velocity	2	Software services
Alpha-1 Foundation	20	Alpha-1 Antitrypsin Deficiency testing
<u>Located Elsewhere in Florida</u>		
Altavian, Inc.	18	Unmanned aircraft systems
Applied Genetic Technologies Corporation	10	Ophthalmology
AxoGen, Inc.	8	Nerve regeneration systems
Banyan Biomarkers, Inc.	5	Biomarkers
BIKAM Pharmaceuticals, Inc.nka Shire Pharmaceuticals		Pharmaceuticals
BioProdex, Inc	15	Pesticides
Breathtec Biomedical Inc.		Medical diagnostics

Company Name	Employment	Product / Service
CAE Healthcare, Inc.		Medical simulation software
Carnivore Food Development, LLC		Food
CerBurg Products, Ltd.		Water soluble fiber with protein
ChaoLogix, Inc.	5	Microprocessor chips
Chemical Containers, Inc.		Metal tanks and containers
Clinipace, Inc.		Biopharmaceutical research
Coefficient Inc. nka Tandem	6	Market research
Comm-N-Sense Corp. a/k/a Verigo		Supply chain monitoring
Concrete Impressions of Florida, Inc.		Concrete blocks and shapes
Convergent Engineering, Inc.		Biomedical signal processing
Cool Flow Dynamics, Inc.		Refrigeration improvement
Cooley Biotech, LLC		Business services
EnCor Biotechnology, Inc.	12	Engineering design
Enterade USA LLC nka Entrinsic Health Solutions, LLC		News service
Enviroflux, LLC		Business consulting
Florida Foundation Seed Producers, Inc.		Plant breeding
Florida Insect Control Group, LLC	5	Mosquito control
Focused Management Solutions		Business consulting
Gladigen, Inc.	1	Credit reporting
Green Technologies, LLC	2	Water pollution control
Ham Peanut Company	6	Peanut by-products
Innovative Space Technologies LLC	3	Solar photovoltaic polymers
Interdisciplinary Consulting Corporation	5	Acoustic energy harvesting
MAKO Surgical Corp.		Military medical equipment
Marine Lightning Protection, Inc.		Marine lighting grounding systems
Myolyn, LLC		Exercise cycles for neurology patients
NanoPhotonica, Inc.	3	Nanomaterials
OBMedical Company	12	Medical devices
Oceanyx Pharmaceuticals, Inc.	2	Pharmaceuticals
Optima NeuroScience, Inc.	4	Neurologic diagnostics
Oragenics, Inc.		Antibiotics
Paracosm, Inc.		Digital imaging
Pathogenes Inc.		Animal pharmaceuticals
peerFit	4	Group fitness search
Prana Therapeutics Ltd.		Neurologic disease treatment
Prioria Robotics, Inc.		Pharmaceuticals
Prometheon Pharma, LLC		Drug delivery systems
Quick-Med Technologies, Inc.	3	Infection prevention
RAPiD Genomics, LLC		Genomics
Rapid Mobile Technologies, Inc.	3	Digital design
Red Lambda, Inc.	5	Cybersecurity
ReliOx Corporation		Chlorine dioxide generation
Reveal Bioscience, LLC		Tissue-based research
Satlantis, LLC		Chemical equipment manufacturing
Seminole Precast Manufacturing, Inc.		Precast concrete products
Sentinel Diagnostic Imaging, Inc.		Medical image analysis

Company Name	Employment	Product / Service
Shadow Learning, Inc.		Medical training
SharpSpring, LLC nka SMTP	31	Marketing technologies
Sinmat, Inc.		Semiconductor manufacturing products
Southern Gardens Citrus Nursery, LLC		Nursery production
Structured Monitoring Products, Inc.		Structural monitoring
Sun BioPharma, Inc.	9	Pharmaceuticals
TAO Connect, Inc.	10	Personal training systems
TapShield, Inc.		Emergency communications
Transformair, Inc.		Air purifiers
U.S. Bioplastics, Inc.	4	Polymer for bio-waste conversion
Velocity Laboratories, LLC	4	
Verigo		Supply chain monitoring
Woodroe Fugate & Son, Inc.	2	Peanut by-products
Xhale, Inc.	8	Medical diagnostics

Sources: Progress Park, UF Office of Technology Licensing, company websites.

Appendix D: Individual University of Florida *Preeminence Initiative* Faculty Hired, Research Awards Received, Salary/Benefits Paid and Return on Investment

College-Department	Faculty Name	Initiative	Date Hired	Awards Received	Salary-Benefits Paid	ROI
Agricultural & Life Sciences (IFAS)-Agricultural & Biological Engineering	Hoogenboom, Gerrit	Food Hub	1/1/2016	\$333,510	\$58,235	5.73
Agricultural & Life Sciences (IFAS)-Animal Sciences	Havelaar, Arie	Food Hub	11/1/2014	\$36,187	\$212,829	0.17
Agricultural & Life Sciences (IFAS)-Animal Sciences	Capua, Ilaria	One Health Initiative	6/12/2016			
Agricultural & Life Sciences (IFAS)-Food and Resource Economics	Anderson, James	Food Hub	11/30/2014	\$325,000	\$418,426	0.78
Agricultural & Life Sciences (IFAS)-Horticultural Sciences	Basset, Gilles	Plant Genomics	9/1/2015	\$407,939	\$98,254	4.15
Agricultural & Life Sciences (IFAS)-Microbiology and Cell Science	Cegarra, Ana	Informatics for Life Sciences	8/27/2014	\$317,375	\$318,356	1.00
Agricultural & Life Sciences (IFAS)-Microbiology and Cell Science	Christner, Brent	UF Biodiversity	1/1/2016	\$14,409	\$36,575	0.39
Agricultural & Life Sciences (IFAS)-Microbiology and Cell Science	Asche, Frank	Food Hub	1/1/2016		\$47,621	0.00
Agricultural & Life Sciences (IFAS)-Plant Pathology	Garrett, Karen	Food Hub	1/1/2015	\$99,789	\$265,795	0.38
Agricultural & Life Sciences (IFAS)-Plant Pathology	White, Frank	Plant Genomics	1/1/2015	\$56,095	\$289,248	0.19
Agricultural & Life Sciences (IFAS)-Soil and Water Science	Sanchez, Pedro	Food Hub	9/1/2016			
Agricultural & Life Sciences (IFAS)-Wildlife Ecology and Conservation	White, Ethan	Metabolomics	5/1/2015	\$1,504,115	\$137,260	10.96
Agricultural & Life Sciences (IFAS)-Wildlife Ecology and Conservation	Ernest, Morgan	UF Biodiversity	5/1/2015	\$341,228	\$137,260	2.49
Arts-Digital Worlds Institute	Barmpoutis, Angelos	Online Learning Institute	8/16/2014	\$48,943	\$239,288	0.20
Arts-School of Art & Art History	Fusco, Juliana	Art	1/1/2016		\$39,879	0.00
Dentistry-Oral Biology	Lemos, José	Metabolomics	8/3/2015	\$791,557	\$98,630	8.03
Education-School of Special Education, School Psychology, & Early Childhood Studies	McLean, Mary	Optimizing Early Childhood	8/16/2014	\$847,447	\$225,221	3.76
Education-School of Special Education, School Psychology, & Early Childhood Studies	Reichow, Brian	Optimizing Early Childhood	7/7/2014		\$276,416	0.00
Education-School of Teaching and Learning	Beal, Carole	Online Learning Institute	8/16/2014	\$62,788	\$259,507	0.24
Engineering-Biomedical Engineering	Anderson, Cheryl	Smart Polymers Nanomedicine	1/1/2015	\$6,282,290	\$195,438	32.14
Engineering-Biomedical Engineering	Yang, Lin	Biomedical Informatics	9/8/2014	\$912,087	\$233,836	3.90
Engineering-Biomedical Engineering	Otto, Kevin	Neuroscience and Brain	8/16/2014	\$212,304	\$244,650	0.87
Engineering-Computer and Information Science and Engineering	Gilbert, Juan	Human Centered Computing (Clemson Team)	7/1/2014	\$4,930,213	\$589,720	8.36
Engineering-Computer and Information Science and Engineering	Traynor, Patrick	Cybersecurity	8/16/2014	\$856,849	\$256,883	3.34
Engineering-Computer and Information Science and Engineering	Butler, Kevin	Cybersecurity	8/16/2014	\$782,864	\$244,650	3.20
Engineering-Computer and Information Science and Engineering	Shrimpton, Tom	Cybersecurity	9/15/2015	\$648,770	\$86,840	7.47
Engineering-Computer and Information Science and Engineering	Daily, Shaundra	Human Centered Computing (Clemson Team)	7/1/2015	\$368,732	\$117,521	3.14
Engineering-Computer and Information Science and Engineering	Woodard, Damon	Human Centered Computing (Clemson Team)	1/1/2015	\$150,000	\$201,379	0.74
Engineering-Computer and Information Science and Engineering	Boyer, Kristy	Online Learning Institute	8/16/2015	\$138,506	\$93,288	1.48
Engineering-Electrical and Computer Engineering	Tehraniipoor, Mark	Cybersecurity	7/23/2015	\$2,527,831	\$198,813	12.71
Engineering-Electrical and Computer Engineering	Wang, Shuo	Renewable Energy and Storage	1/1/2015	\$578,037	\$171,985	3.36
Engineering-Electrical and Computer Engineering	Oweiss, Karim	Neuroscience and Brain	8/16/2014	\$381,464	\$275,231	1.39

College-Department	Faculty Name	Initiative	Date Hired	Awards Received	Salary-Benefits Paid	ROI
Engineering-Electrical and Computer Engineering	Bretas, Arturo	Renewable Energy and Storage	1/1/2015		\$187,620	0.00
Engineering-Industrial and Systems Engineering	Oliveira, Daniela	Informatics Techniques and Technologies	7/1/2014	\$1,239,413	\$252,674	4.91
Engineering-Industrial and Systems Engineering	Garcia, Alfredo	Informatics Techniques and Technologies	1/1/2015	\$335,255	\$203,255	1.65
Engineering-Materials Science and Engineering	Hennig, Richard	Informatics for Engineered Systems and the Physical Systems	8/16/2014	\$585,918	\$243,288	2.41
Engineering-Mechanical and Aerospace Engineering	Bevilacqua, Riccardo	Autonomous Systems	8/16/2014	\$404,900	\$199,798	2.03
Engineering-Mechanical and Aerospace Engineering	Spearot, Douglas	Informatics Techniques and Technologies	8/16/2015	\$220,391	\$97,719	2.26
Engineering-Mechanical and Aerospace Engineering	Scheffe, Jonathan	Renewable Energy and Storage	9/15/2014		\$181,931	0.00
Florida Museum of Natural History-	Guralnick, Robert	Informatics for Life Sciences	12/24/2014	\$1,334,944	\$187,744	7.11
Florida Museum of Natural History-	Blackburn, David	UF Biodiversity	7/1/2015	\$544,429	\$136,324	3.99
Florida Museum of Natural History-	Cobb, Charles	Historical & Environmental Archeology	8/15/2014	\$64,791	\$319,604	0.20
Health and Human Performance-Applied Physiology & Kinesiology	Barton, Elisabeth	Skeletal Muscle Biology	1/1/2015	\$876,320	\$257,978	3.40
Journalism & Communications-Advertising	Raup-Krieger, Janice	STEM Translational Communication	7/1/2014	\$302,111	\$312,008	0.97
Journalism & Communications-Journalism	Kalyanaraman, Sriram	Online Learning Institute	8/16/2014		\$243,288	0.00
Law	Rhee, Robert	Corporate Law	8/16/2014		\$405,479	0.00
Liberal Arts & Sciences-Anthropology	Johnson, Jeffrey	Social Network Analysis	8/16/2014	\$464,106	\$243,288	1.91
Liberal Arts & Sciences-Anthropology	Tucker, Catherine	Latin American Development	8/16/2015		\$73,221	0.00
Liberal Arts & Sciences-Biology	Cummings, Derek	Mathematical Modeling of Diseases	8/16/2015		\$61,495	0.00
Liberal Arts & Sciences-Chemistry	Colina, Coray	Smart Polymers Nanomedicine	8/16/2015	\$252,638	\$112,222	2.25
Liberal Arts & Sciences-Chemistry	Savin, Daniel	Smart Polymers Nanomedicine	1/1/2015	\$220,622	\$179,803	1.23
Liberal Arts & Sciences-Chemistry	Guo, Zhongwu	Chemical Innovation for Cancer Research	8/16/2016			
Liberal Arts & Sciences-English	Hempel, Amy	Creative Writing	1/1/2015		\$216,801	0.00
Liberal Arts & Sciences-English	Mlinko, Ange	Creative Writing	8/16/2014		\$203,875	0.00
Liberal Arts & Sciences-Geography	Glass, Gregory	Mathematical Modeling of Diseases	8/16/2014	\$34,534	\$326,200	0.11
Liberal Arts & Sciences-Geography	Walker, Robert	Latin American Development	8/16/2014	\$11,498	\$295,620	0.04
Liberal Arts & Sciences-Geology	Forte, Alessandro	Informatics for Life Sciences	2/1/2016		\$31,959	0.00
Liberal Arts & Sciences-History	Hunt, Nancy	African Studies: Public Health & Social Change	8/16/2016			
Liberal Arts & Sciences-Math	Bubenik, Peter	Informatics Techniques and Technologies	8/16/2015	\$41,392	\$89,901	0.46
Liberal Arts & Sciences-Physics	Zhang, Xiao-Guang	Informatics for Engineered Systems and the Physical Systems	8/16/2014	\$44,000	\$295,619	0.15
Liberal Arts & Sciences-Political Science	McDonald, Michael	Informatics in Social Science Humanities and Education	8/16/2014	\$14,250	\$216,108	0.07
Liberal Arts & Sciences-Psychology	Scott, Lisa	Neuroscience and Brain	8/16/2015	\$202,503	\$101,628	1.99
Liberal Arts & Sciences-Statistics	Michailidis, George	Informatics Institute (Director)	1/1/2015	\$851,940	\$310,959	2.74
Medicine-Biochemistry & Molecular Biology	Merritt, Matthew	Metabolomics	8/15/2015	\$198,750	\$93,699	2.12
Medicine-Biochemistry & Molecular Biology	Berglund, Andrew	Neuroscience and Brain	7/1/2015	\$71,878	\$164,013	0.44

College-Department	Faculty Name	Initiative	Date Hired	Awards Received	Salary-Benefits Paid	ROI
Medicine-Emerging Pathogens Institute/Molecular Genetics and Microbiology	Schweizer, Herbert	Burkholdaria	11/1/2014	\$683,809	\$407,922	1.68
Medicine-Health Outcomes and Policy	Hogan, William	Biomedical Informatics	6/1/2014	\$830,474	\$690,145	1.20
Medicine-Health Outcomes and Policy	Modave, Francois	Biomedical Informatics	1/30/2015	\$92,403	\$77,548	1.19
Medicine-Medicine	Avram, Dorina	Mucosal Immunology	5/1/2015	\$1,654,802	\$91,507	18.08
Medicine-Medicine	Clark-Curtiss, Josephine	One Health Initiative	4/15/2015	\$149,102	\$95,890	1.55
Medicine-Pharmacology and Therapeutics	Sweeney, Lee	Neuroscience and Brain	1/5/2015	\$4,538,352	\$418,426	10.85
Medicine-Pharmacology and Therapeutics	Munger, Steve	Neuroscience and Brain	9/1/2014	\$384,860	\$446,321	0.86
Medicine-Physiological & Functional Genomics	Gurka, Matthew	Optimizing Early Childhood	10/30/2015	\$188,781	\$62,466	3.02
Medicine-Physiology and Functional Genomics	Esser, Karyn	Skeletal Muscle Biology	9/1/2015	\$509,453	\$86,712	5.88
Medicine-Psychiatry	Mathews, Carol	Neuroscience and Brain	8/1/2015	\$203,357	\$171,389	1.19
Nursing-Family, Community & Health System Science	Keenan, Gail	Biomedical Informatics	9/2/2014	\$263,537	\$236,301	1.12
Pharmacy-Medicinal Chemistry	Aldrich, Jane	Drug Discovery & Development	2/3/2015	\$2,272,714	\$230,685	9.85
Pharmacy-Pharmaceutics	Schmittgen, Thomas	Drug Discovery & Development	7/1/2015	\$430,094	\$149,589	2.88
Pharmacy-Pharmaceutics	Bulitta, Jürgen	Drug Discovery & Development	7/17/2015	\$14,707	\$105,616	0.14
Pharmacy-Pharmacodynamics	McLaughlin, Jay	Drug Discovery & Development	3/1/2015	\$1,894,258	\$162,329	11.67
Pharmacy-Pharmacotherapy and Translational Research	Lamba, Jatinder	Metabolomics	7/1/2014	\$726,196	\$262,192	2.77
Public Health & Health Professions	Maurelli, Anthony	Burkholdaria	1/4/2016	\$91,500	\$47,123	1.94
Public Health & Health Professions- Physical Therapy	Mitchell, Gordon	Neuroscience and Brain	11/3/2014	\$1,981,294	\$281,096	7.05
Public Health & Health Professions-Clinical and Health Psychology	Smith, Glenn	Neuroscience and Brain	8/1/2015	\$1,607,594	\$66,301	24.25
Public Health & Health Professions-Clinical and Health Psychology	Johnson, Cynthia	Optimizing Early Childhood	1/5/2015	\$558,201	\$184,932	3.02
Public Health & Health Professions- Medicine/Biostatistics	Liang, Faming	Informatics for Life Sciences	7/18/2014	\$589,326	\$255,205	2.31
Public Health & Health Professions- Medicine/Biostatistics	Datta, Somnath	Genomic Medicine	9/1/2015	\$75,483	\$86,712	0.87
Public Health & Health Professions- Medicine/Biostatistics	Datta, Susmita	Metabolomics	9/1/2015		\$86,712	0.00
Public Health & Health Professions- Medicine/Epidemiology	Prosperi, Mattia	Biomedical Informatics	1/1/2015	\$304,104	\$184,493	1.65
Veterinary Medicine-Infectious Diseases and Pathology	Curtiss, Roy	One Health Initiative	1/1/2015	\$1,531,267	\$124,384	12.31
Veterinary Medicine-Infectious Diseases and Pathology	Zhou, Liang	Mucosal Immunology	11/15/2015		\$37,260	0.00
Veterinary Medicine-Toxicology/Physiological Sciences	Vulpe, Chris	One Health Initiative	1/1/2015	\$1,455,317	\$248,767	5.85

Research awards and salaries/benefits paid as of March 30, 2016.