

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

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Table of Contents

| | |
|--|----|
| Executive Summary..... | 4 |
| Table ES1. Summary of economic contributions of the University of Florida and related entities in the State of Florida, 2014-15 | 5 |
| Figure ES1. Summary of employment contributions of the University of Florida and related entities in the State of Florida, 2014-15 | 5 |
| Acknowledgements | 5 |
| Introduction | 7 |
| Figure 1. Map of statewide locations of the University of Florida main campus, UF-IFAS and UF Health facilities..... | 8 |
| Methods and Information Sources..... | 9 |
| Revenues, Expenditures and Direct Employment by the University of Florida and Affiliated Organizations | 11 |
| Table 1. Statement of income and expenses for the University of Florida and affiliated organizations, 2014-15..... | 13 |
| Table 2. Consolidated revenues to the University of Florida and affiliated organizations analyzed by in-state versus out-of-state sources, 2014-15 | 14 |
| Figure 2. Summary of major revenues to the University of Florida and affiliated organizations, 2014-15 | 15 |
| Table 3. Consolidated expenditures by the University of Florida and affiliated organizations, 2014-15 | 16 |
| Table 4. Direct employment at University of Florida and affiliated organizations, 2015 | 17 |
| Student Attendance and Spending..... | 18 |
| Table 5. Student enrollment at the University of Florida, by residency and level, 2014 fall semester | 18 |
| Table 6. Cost of attendance to the University of Florida, by residency and classification, 2014-15 academic year | 19 |
| Table 7. University of Florida student expenditures, by residency and on-/off-campus living status, 2014-15 academic year..... | 19 |
| Visitor Attendance and Spending | 20 |
| Table 8. Attendance at University of Florida academic, cultural and healthcare venues, 2014-15..... | 21 |
| Table 9. Attendance at University of Florida athletic events, 2014-15 | 22 |
| Table 10. Average travel spending per visitor-day for Florida residents and nonresidents | 22 |
| Table 11. Aggregate spending by University of Florida visitors, 2014-15 | 23 |
| Technology Licensing Companies | 24 |
| Table 12. Summary of Florida companies licensing University of Florida technologies: number of firms and employment by industry sector, 2015..... | 25 |
| Economic Contributions of the University of Florida and Related Entities in the State of Florida | 26 |
| Table 13. Summary of economic contributions of the University of Florida and related entities in the State of Florida, 2014-15 | 27 |
| Figure 3. Industry output (revenue) contributions of the University of Florida and related entities in the State of Florida, 2014-15 | 28 |

| | |
|--|----|
| Figure 4. Employment contributions of the University of Florida and related entities in the State of Florida, 2014-15 | 28 |
| Figure 5. Value added (GDP) contributions of the University of Florida and related entities in the State of Florida, 2014-15 | 29 |
| Table 14. Economic contributions detailed by activity and category for the University of Florida and related entities in the State of Florida, 2014-15 | 30 |
| Comparison of Statewide Economic Contributions for 2009-10 and 2014-15 | 32 |
| Table 15. Percent change in economic contributions for the University of Florida and related entities in fiscal year 2014-15 compared to 2009-10 | 32 |
| Economic Contributions in Alachua County, Florida | 33 |
| Table 16. Summary of economic contributions of the University of Florida and related entities in Alachua County, Florida, 2014-15 | 33 |
| Return on Investment of the State of Florida Higher Education <i>Preeminence Initiative</i> | 34 |
| Table 17. Summary of <i>Preeminence Initiative</i> faculty hired, sponsored research awards received, salaries and benefits paid to-date, and return on investment, by University of Florida colleges and departments..... | 35 |
| Table 18. Summary of <i>Preeminence Initiative</i> faculty hired, sponsored research awards received, faculty salaries/benefits paid to-date, and return on investment, ranked by initiative..... | 37 |
| Appendix A: University of Florida Construction Projects in 2014-15 | 37 |
| Appendix B: Industry Sector Level Economic Contributions and Regional Multipliers for the University of Florida and Related Entities in Florida, 2014-15..... | 40 |
| Appendix C: Florida Companies Licensing University of Florida Technologies | 44 |
| Appendix D: Individual University of Florida <i>Preeminence Initiative</i> Faculty Hired, Research Awards Received, Salary/Benefits Paid and Return on Investment | 47 |

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.

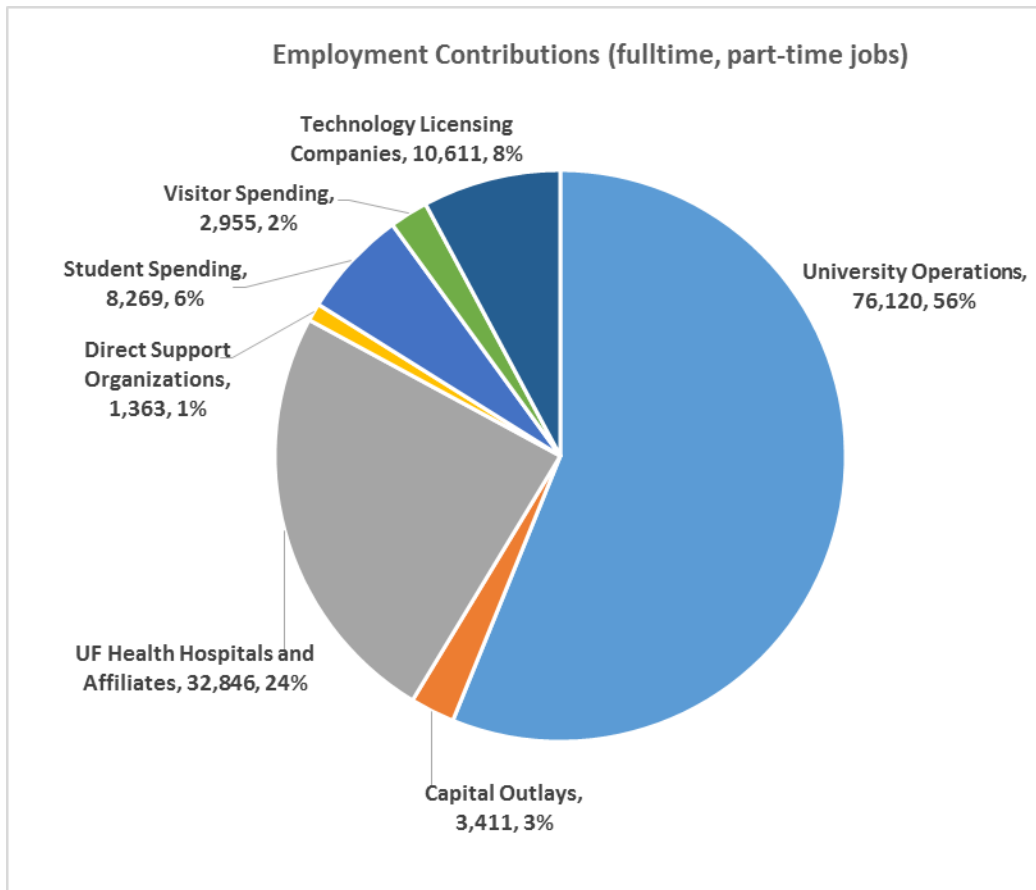
Analysis of research awards received by UF in relation to salaries and benefits paid for faculty hired under the *Preeminence Initiative* indicate a return on investment to state dollars of 3.14 fold.

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



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Introduction

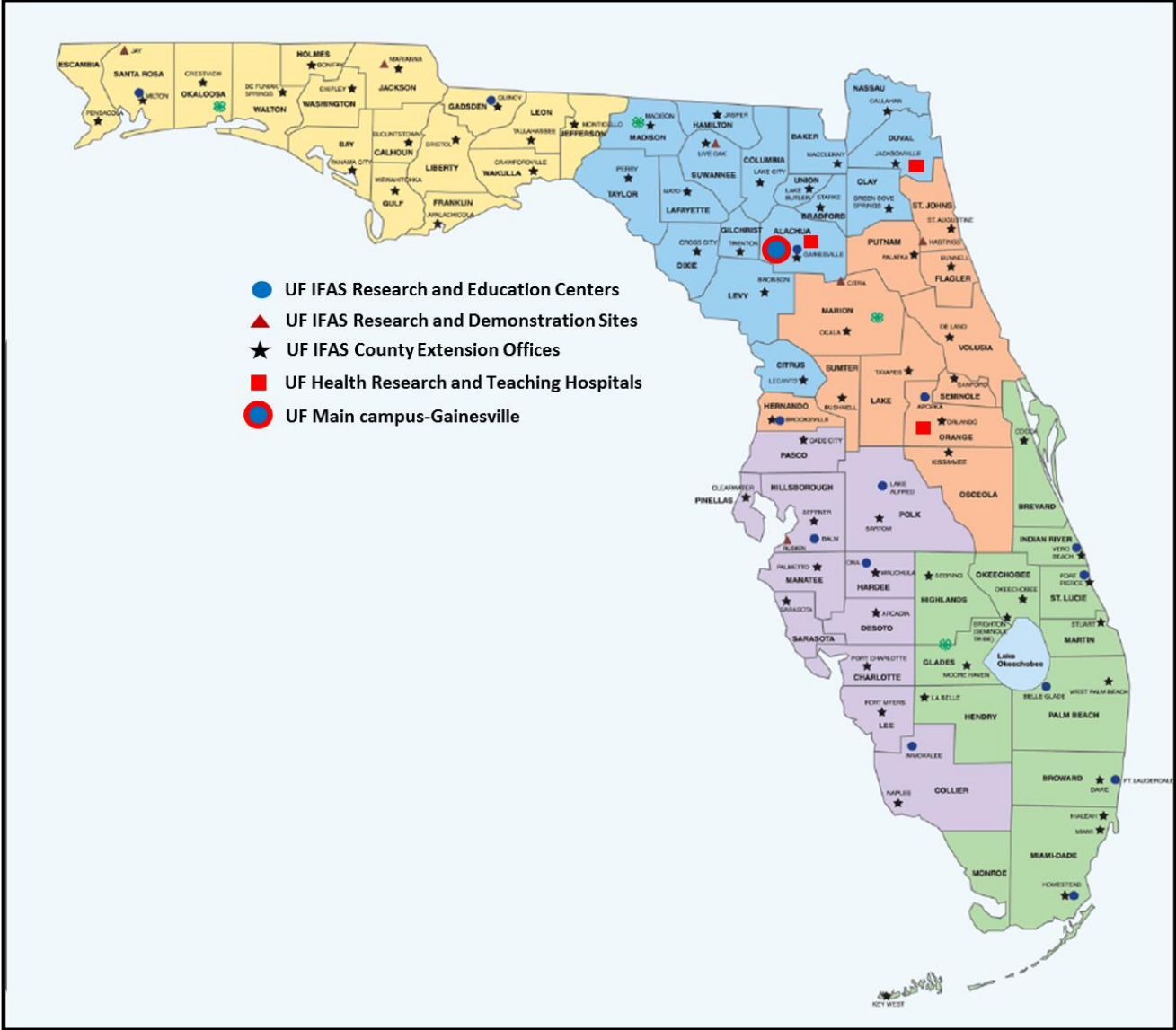
The University of Florida (UF) was founded in 1853 in Lake City, Florida, then relocated to Gainesville, Florida in 1866. Today, UF is one of the largest comprehensive public universities in the United States, with enrollment in excess of 50,000 students from throughout the United States and world. The 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> | | |

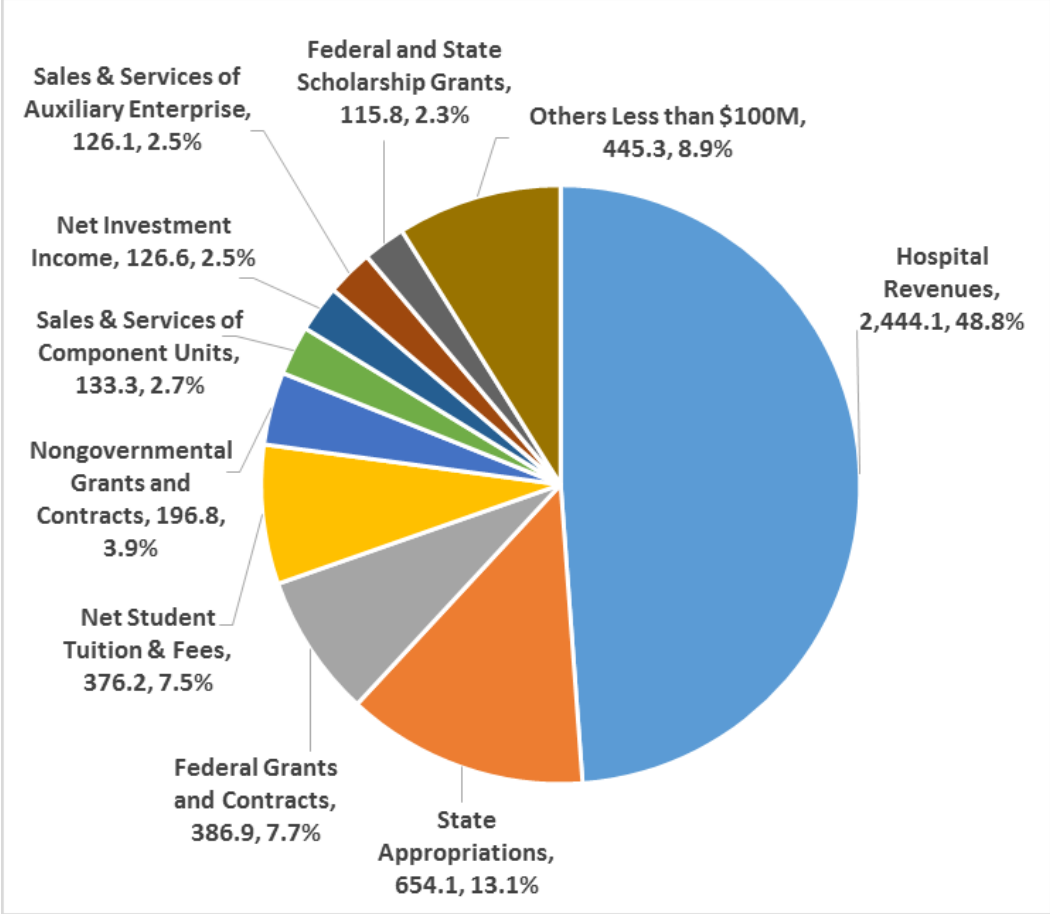
Source: UF Annual Financial Report.

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 | <u>101</u> | <u>1,394</u> |

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

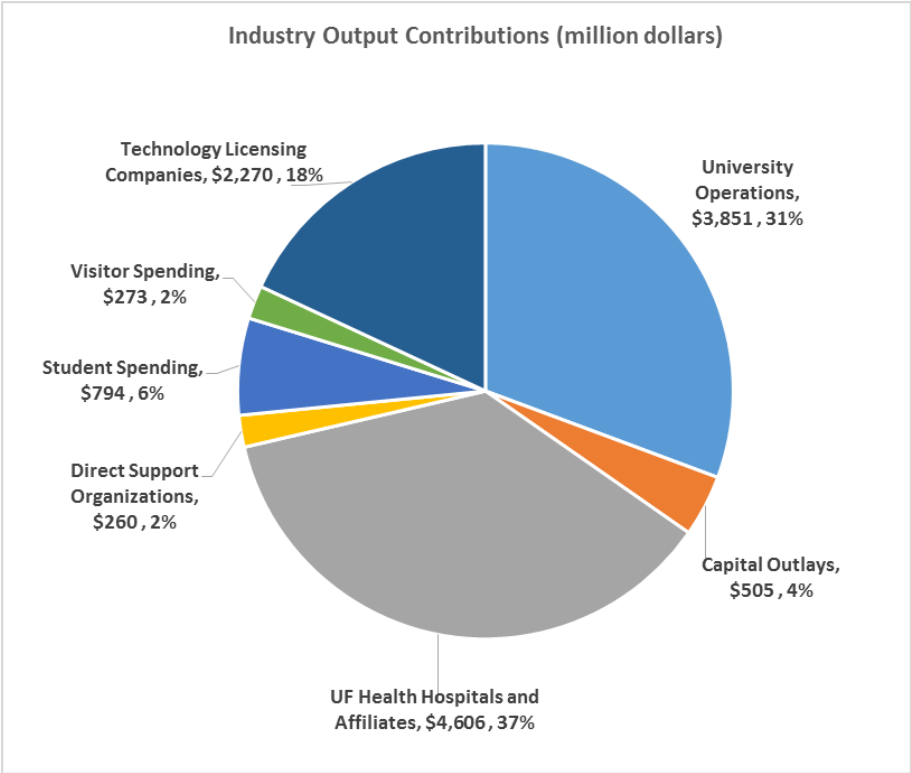


Figure 4. Employment contributions of the University of Florida and related entities in the State of Florida, 2014-15

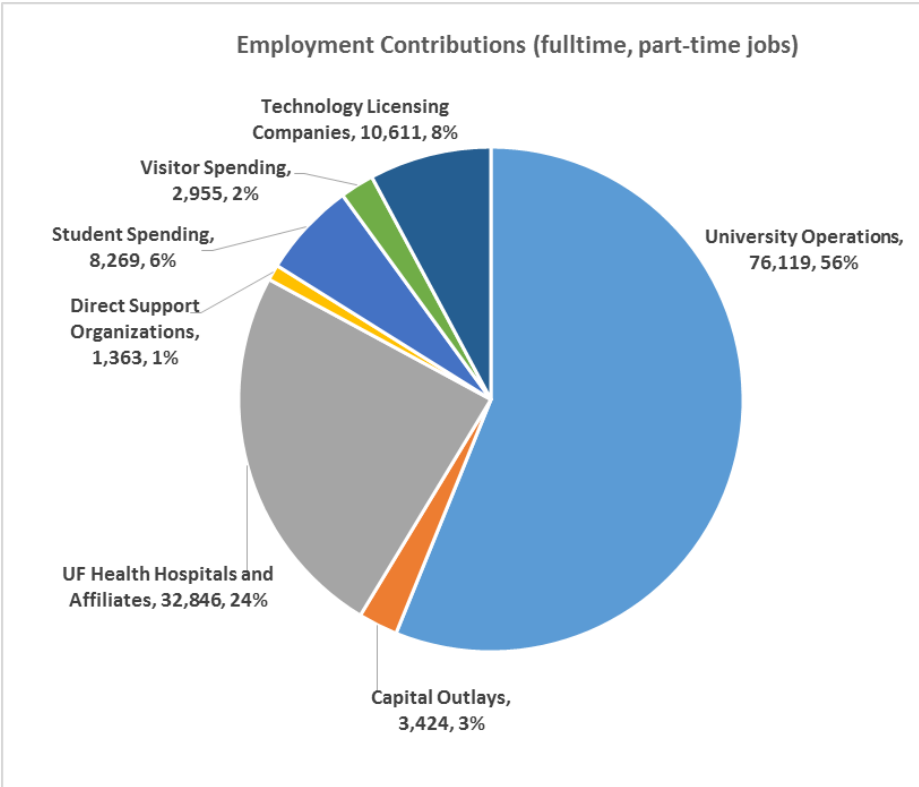


Figure 5. Value added (GDP) contributions of the University of Florida and related entities in the State of Florida, 2014-15

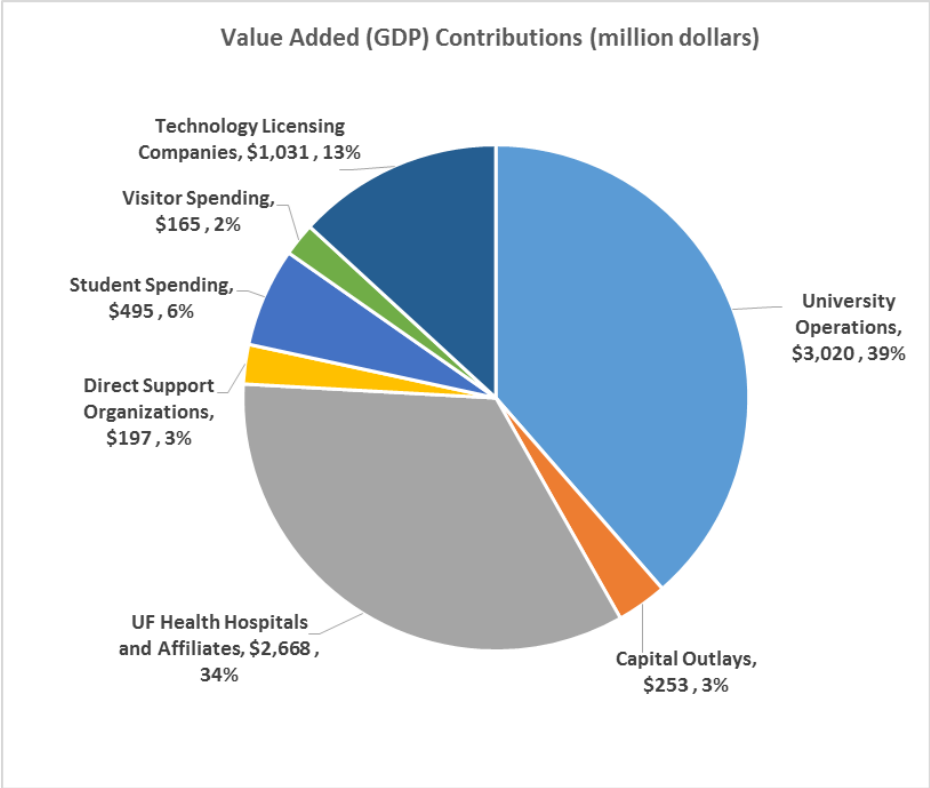


Table 14. Economic contributions detailed by activity and category for the University of Florida and related entities in the State of Florida, 2014-15

| 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\$) | Employ- ment (Jobs) | Output Multiplier Total Effects (\$/\$) | Employ- ment 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.