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“ . . . Beginning as a state normal school . . . FAMU was restricted for more than 75 years . . . in its development by the Separate-but-Equal Policy and inadequate financial appropriation . . . ”

“ . . . Over the remaining years . . . The drama of FAMU has been played out on a stage where institutional survival was the main act and where turmoil, sacrifice, neglect, and perennial threats of merger were principal players . . . ”

(Introductory statements by Dr. Leedell Neyland and Dr. Frederick S. Humphries in FLORIDA AGRICULTURAL AND MECHANICAL UNIVERSITY: A CENTENNIAL HISTORY – 1887 – 1987).

However, in spite of all of the challenges we have faced and are still facing, the document I am sharing clearly shows that we have been **true to our mission and successful in our efforts. We are a success store!** For many, many years we have been continuously working and building a noble and worthy foundation. We have and should be continuing to build on the foundation of our mission. While the other state institutions have also been successful, our focus and clientele have been different. But yet when matched with other state institutions, **WE HAVE BEEN SUCCESSFUL!** We are a state institution. Therefore, FAMU is no place for personal and/or professional desires and wishes. Our first obligation should be to the citizens of the State of Florida. Any other agenda, in my opinion, would not be in the best interest of the students nor the reasons FAMU was established to serve. This is not time for trial and/or error.

A copy of this document is being shared with: (1) Former and Interim Presidents, (2) Current University President, (3) Ms. Linda Barge-Miles for distribution to Member of the FAMU Board of Trustees and (4) Selected Members of the Florida Board of Governors and Chancellor.

9/08/2015



*THE ECONOMIC IMPACT OF
FLORIDA A&M UNIVERSITY (FAMU) ON FLORIDA*

Prepared for:

Florida A&M University

By

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I. EXECUTIVE SUMMARY

- FAMU's contributions to Florida's economic development are significant.
- The University generates \$3.7 billion in annual economic output, while supporting 36,876 permanent jobs for Florida residents.
- Most of FAMU's alumni stay in Florida, providing the State with important economic and social contributions.
- The Summary Table below quantifies the multifaceted economic impacts of the University's higher education activities.

FAMU: Summary of Economic Impacts

Impact On	Florida A&M University Recurring Impacts			University Capital Projects
	On-Going University Activities	Additional Alumni Earning Power	Total Recurring Florida Impacts	
Employment (Jobs)	16,313	20,563	36,876	3,445
Labor Income (\$ Million)	\$499	\$742	\$1,241	\$134
Value Added (\$ Million)	\$729	\$1,256	\$1,985	\$184
State & Local Fiscal Revenues (\$ Million)	\$63	\$121	\$183	\$11
Total Economic Impact (\$ Million)	\$1,257	\$2,419	\$3,676	\$317

Source: The Washington Economics Group, Inc., IMPLAN Model.

- As a senior university of the statewide higher education system, FAMU's operations provide important externality benefits to the State, well beyond the quantification of economic impacts.
- These externality benefits are presented below:

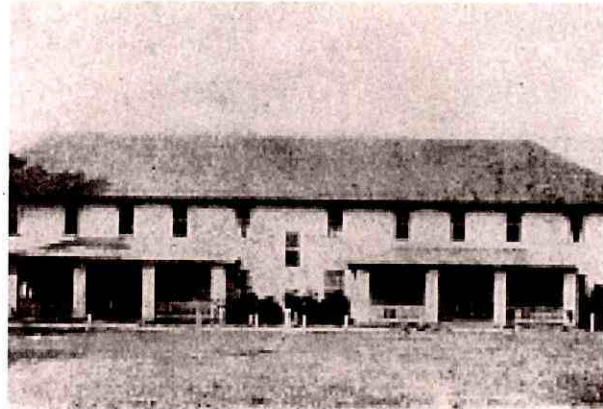


- FAMU's human and physical infrastructures are assets that can be utilized by the State in meeting the growing demand for higher education in Florida.

II. THE ECONOMIC DEVELOPMENT IMPORTANCE TO FLORIDA OF FLORIDA A&M UNIVERSITY: CONCEPTUAL FRAMEWORK

A. *Background*

Florida Agricultural and Mechanical University (FAMU) is a leading provider of higher education in Florida. FAMU was founded on October 3, 1887 in Tallahassee, Florida as the State Normal College for Colored Students. Led by two educators, Thomas DeSaille Tucker and Thomas Van Rennasaler Gibbs, FAMU began classes with 15 students. Although the University was



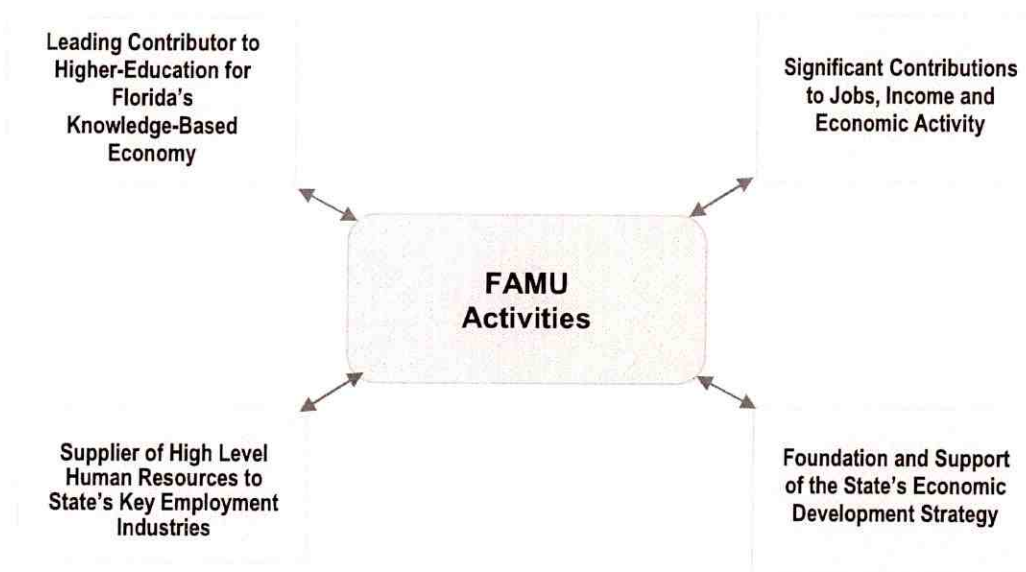
open for classes, it did not become an official institution of higher learning until the 1905 Buckman Act, which transferred control from the Board of Education to the Board of Control – creating the foundation for FAMU. Today FAMU has approximately 13,000 students and is one of 11 institutions in Florida’s State University System. It has become a center of academic excellence. As a Historically Black College and University (HBCU), FAMU has awarded more baccalaureate degrees to African American students than any institution in the nation – contributing to economic opportunity in Florida and throughout the nation.

As defined in the Higher Education Act of 1965, as amended, an HBCU is any historically black college or university that was established prior to 1964, whose principal mission was, and is, the education of African Americans, and that is accredited by a nationally recognized accrediting agency. HBCU’s enroll 14 percent of all African American students in higher education, although they constitute only three percent of America’s 4,084 institutions of higher education. Today, there are more than 100 historically black colleges in the United States, located almost exclusively in the Southern and Eastern states. FAMU stands out among the HBCUs in the nation. In 1997, FAMU was selected as the TIME Magazine-Princeton Review “College of the Year.”

FAMU offers 62 Bachelor degrees in 103 majors and 36 Master’s degrees in 56 majors, as well as 2 professional and 11 Ph. D. degrees. The University offers a wide range of academic programs including journalism, education, and engineering. It is most noted for its award-winning School of Pharmacology and for its School of Business and Industry.

The University also provides significant intangible benefits to Florida by contributing to a positive image of higher education and workforce development. FAMU's economic development impacts are statewide. As a senior state university, it attracts students from all regions and beyond the State boundaries. With its emphasis on academics, FAMU not only contributes to the educational and social foundations of Florida, but also is a fundamental component of the State's Economic Development Strategy, as illustrated below.

**Florida Agricultural and Mechanical University
A Key Foundation of Economic Development in Florida**

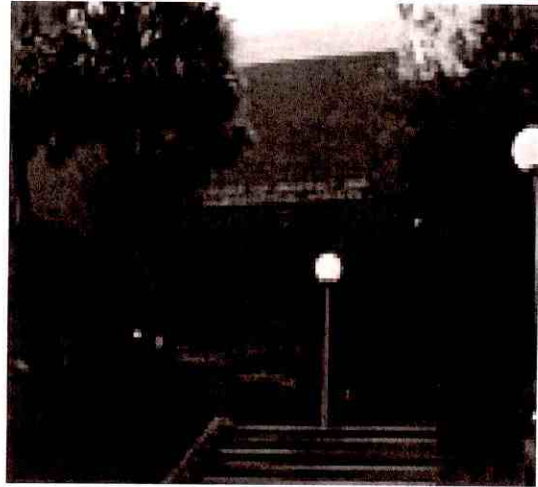


In addition to its significant contributions to the economic development of Florida, FAMU's activities strongly support the statewide effort to diversify Florida's economy toward high value-added high wage activities. At the State level, the University's contributions to the knowledge-based economy are key components of Enterprise Florida's¹ Statewide Economic Development Plan. The Plan was developed under the leadership of the Governor and the Legislature and is the official economic development strategy for the State. Through its multifaceted academic, cultural and social activities, FAMU is a significant contributor to the State's Economic Development Plan.

¹ Enterprise Florida is the official State of Florida public-private partnership for economic development.

B. Academic and Cultural Programs

FAMU offers some of the most competitive academic programs in the State. Notably, the College of Pharmacy and Pharmaceutical Sciences (COPPS) is a national leader in pharmacology education. Organized in 1951, the School of Pharmacology was founded to cater to the need for pharmaceutical services in communities across the country. In response to its expanded role in professional and graduate education, the School's name was changed to the COPPS in 1985. The



College remains at the forefront of the nation's changing healthcare system, by producing highly qualified pharmacy practitioners while taking an active role in pharmaceutical care. FAMU ensures that graduates of COPPS are technically trained, fully educated and prepared to join the healthcare industry – one of Florida's premier and growing sectors. With its main campus located in Tallahassee, the COPPS has opened extension campuses in Miami and Tampa, allowing a greater number of students access to quality pharmacology education – a key goal of the State of Florida. FAMU's continued growth and success is a testimony of marketplace demand for quality and career-oriented education.



The School of Business and Industry (SBI) at FAMU was founded in 1974 as the top choice for students committed to professional development, business and leadership in Florida. The SBI focuses on Florida's dynamic business climate by offering Bachelor's and MBA degrees in global business, industry and commerce. In order to maintain its reputation of excellence, the SBI faculty promotes an environment of continuous improvement by acquiring and developing the necessary

tools to maintain its cutting edge. The SBI and FAMU pride themselves on providing and supporting business opportunities for students in preparation for Florida's growing and diverse business climate. FAMU positively contributes to the economy and caters to

marketplace demand by preparing students efficiently for knowledge-based careers in important, growing sectors of Florida's economy.



FAMU succeeds as both a center of academic excellence in higher education as well as one for cultural development. FAMU's Band, The Marching 100, is a pillar among collegiate marching bands across the country. The Marching 100 started in 1892 as a small group with only 16 available instruments and has grown to consist of 360 members. The Marching 100 has become world famous and is the leader in collegiate marching bands, ranking high among FAMU's proud traditions. The Marching 100 is known throughout the world as a leader in innovative band

performances including high-energy dance shows and gymnastics. The Band has performed at many high profile events such as the Bastille Day Parade in France where it was the official representative from the United States, the 52nd Inauguration Parade in Washington, D.C. for President Bill Clinton, and the 2007 Super Bowl in Miami. In 1992, *Sports Illustrated* named the Marching 100 "Best Marching Band in the Nation." The Band draws thousands of visitors to FAMU and the Leon County area, producing recurring financial impacts and benefits to the regional and State economies.



The State of Florida has had one of the fastest growing populations in the U.S. and is expected to continue to lead the nation in growth in the years ahead. The growth in college enrollments will be propelled not only by the increase in population, but also by the recognition that post-secondary education is an important determinant of economic

success in this dynamic global economy. FAMU recognizes this need by providing a quality education that serves the requirements of higher education in Florida and by training for the State's growing employment marketplace. FAMU's academic and cultural programs facilitate the State's workforce and economic development strategies for creating and maintaining a thriving knowledge-based economy.

C. *University Governance*

FAMU's Board of Trustees is responsible for administering University affairs. The Board consists of 13 members, of which the Governor appoints 6, and the Florida Board of Governors appoints 5. The President of the Faculty Senate and the President of the Student Government Association, who are both elected by their respective bodies, also serve the Board of Trustees. The School's President serves as the Corporate Secretary to the Board of Trustees and is responsible for the University's daily activities. Arguably the most important job of the Board of Trustees is the selection, retention and replacement of the President. Other duties of the Board of Trustees include approving Bachelor's and graduate programs, governing the admission of students and developing strategic plans for the University, within the guidelines of the Florida Board of Governors. The officers of the Board of Trustees serve two-year terms and may be re-elected for an additional term. Although the day-to-day oversight of FAMU is entrusted to the Board of Trustees and the President with certain powers over academic programs and personnel, like all State universities FAMU is subject to the Florida Board of Governors for final approval on specific University policies.

The State University System vests most of the authority on a recently created Board of Governors. The Constitution of the State of Florida established the Board of Governors of the State University System of Florida effective January 7, 2003. The Board of Governors operates, regulates, controls and is fully responsible for the management of the entire University System. The Board consists of 17 members, of which 14 are appointed by the Governor. In addition to these 14 members, the Board of Governors automatically includes the Commissioner of Education, the Chair of the Advisory Council of the Faculty Senates and the President of the Florida Student Association. The appointed members serve staggered 7-year terms. The governance system provides for strategic direction from the Board of Governors, while allowing FAMU to manage its daily academic and operational activities.

D. *FAMU's Impacts on the State of Florida*

FAMU's higher education activities are a positive force in the attraction of new businesses and the retention of existing ones. These impacts generate additional production, income and employment throughout the economy via inter-industry (supply-chain) linkages and consumer spending of labor income, and result in an economic multiplier effect. This development magnifies the statewide economic and educational

impact of the University, while facilitating the State's economic development strategy aimed at creating a knowledge-based economy.

FAMU is a key foundation of economic development in the State of Florida. FAMU's long-established leadership within Florida's education sector has led it to focus on programs and activities that are crucial to Florida's future and economic development. FAMU's academic programs positively contribute to the economy and cater to marketplace demand by efficiently preparing students for knowledge-based careers in important, growing sectors of Florida's economy. The University continues to be a major economic contributor to the State of Florida through its commitment to educational and cultural enrichment. Furthermore, FAMU functions as an important source of economic and human capital development through its on-going university operations, alumni affairs and capital projects, which strengthen the State's economic development foundation.

III. THE ECONOMIC IMPACTS OF FLORIDA A&M UNIVERSITY

Florida A&M University's educational mission creates economic impacts throughout the economy. The first and most recognizable are the impacts associated with the on-going operations of the University. Second is the on-going impact of the University's end product, the cadre of highly educated alumni filling leadership roles in all sectors of the State's economy. Third is the impact associated with the University's planned capital additions, a series of projects that will further enhance the University's physical plant and ready the campus for educational challenges of the XXI Century. All of these activities generate significant and quantifiable economic impacts. These impacts, estimated by utilizing professionally accepted and widely used methodology, result in statewide and local increases in high wage employment, labor income, output and public revenues. The impacts of the University's on-going operations, as well as the economic impacts associated with the added earning power of FAMU's alumni living in the State, recur each year. These activities result in a total annual economic impact of over \$3.676 billion, and create over 36,876 permanent jobs for Florida residents. These Economic Impacts are summarized in Table 1. This section of the report analyzes the economic impacts of FAMU's on-going operations. The following sections will analyze the impacts of the Alumni's additional earnings attributable to their education, and the University's Capital Projects expenditures.

Table 1. Summary of the Multifaceted Economic Impacts of FAMU in Florida

<i>Impact On</i>	<i>Florida A&M University Recurring Impacts</i>			<i>University Capital Projects</i>
	<i>On-Going University Activities</i>	<i>Additional Alumni Earning Power</i>	<i>Total Recurring Florida Impacts</i>	
Employment (Jobs)	16,313	20,563	36,876	3,445
Labor Income (\$ Million)	\$499	\$742	\$1,241	\$134
Value Added (\$ Million)	\$729	\$1,256	\$1,985	\$184
State & Local Fiscal Revenues (\$ Million)	\$63	\$121	\$183	\$11
Total Economic Impact (\$ Million)	\$1,257	\$2,419	\$3,676	\$317

Source: The Washington Economics Group, Inc.

The expenditures made by the University in the course of its daily operations, student living expenditures, and the expenditures of out-of-town visitors to the many educational, athletic, and cultural events of the University generate economic impacts that extend beyond those **directly** related to these on-going activities. These "spillover" or multiplier

impacts are the result of each business activity's supply relationships with other firms operating within the region and the State, the proportion of business value added² that accrues to households in the form of labor and capital income, and the propensity of households to spend income on goods produced within the local area.

Methodology

Economic models that explicitly account for inter-industry linkages (supply relationships), the generation of labor and capital income and the spending of household income have been used since the 1960's to estimate the contribution that a particular business or industry makes to the general economy. These "input-output" models recognize that, as an industry experiences an increase in the demand for its products or services, it in turn needs more goods and services from its suppliers and must increase its purchases from other industries in the economy. The effect on regional production resulting from successive rounds of inter-industry linkages is referred to as the *indirect effect*. The resulting increases in regional production also lead to expansions in employment and labor income, and the increases in labor income lead to increases in consumer spending, further expanding sales and production throughout the regional economy. The latter economic impacts are referred to as the *induced effects*. The successive waves of production, spending and more production result in *economic multiplier effects*, where the final or total increase in regional production, income and employment, respectively, is larger than the initial (or "direct") increase in production, income and employment. The total quantitative economic contribution of these activities, therefore, is comprised of a *direct effect*, an *indirect effect* and an *induced effect*.

The Minnesota IMPLAN Group, Inc. (MIG) provides the software and basic data needed to formulate the economic multiplier model developed for this study. MIG has been providing economic multiplier models for regional economic impact analysis since 1985³. **Models developed using IMPLAN software have been widely used by private sector and academic economists and by federal, state and local government agencies.** The Washington Economics Group, Inc. (WEG) IMPLAN model for the State is based on the latest U.S. input-output tables as well as income and employment data for Florida from the U.S. Department of Commerce.

The *direct impact* of the on-going operations of the University is comprised of all the expenditures made by the University for teaching, research, public service, and to support routine University activities. This impact also includes student living expenditures and expenditures made by individuals coming from outside the area to participate in educational, cultural, and athletic events conducted by the University. With the assistance

²"Value added" refers to the difference between business revenues and the cost of non-labor and non-capital inputs used to produce goods and/or services.

³Information on the IMPLAN Group models and the company history can be found at www.mig-inc.com.

of the University leadership team, WEG obtained information on these activities and expenditures. During the 2004-2005 academic year the University's operating budget exceeded \$425 million. Student living expenditures for the same period were just under \$224 million, and visitors from out of the area to educational, cultural, and athletic events held at the University spent over \$18 million. When these expenditures are combined, they total over \$668 million each year. To properly measure the principal impacts of these activities, the *direct*, *indirect* and *induced* economic impacts of the on-going operations of the University were calculated using an extended input-output model of the Florida economy. These comprehensive economic impacts are summarized in Table 2.

Table 2. Summary of Economic Impacts of FAMU's On-Going Operations

<i>Impact on:</i>	<i>Direct</i>	<i>Indirect & Induced</i>	<i>Total Impact</i>
Employment (Jobs)	10,733	5,580	16,313
Labor Income (\$ Mill.)	306	193	499
Value Added (\$ Mill.)	376	353	729
State & Local Tax Revenues (\$ Mill.)	-----	-----	63
Total Economic Impact (\$ Mill.)	668	589	1,257

Source: The Washington Economics Group, Inc.

A more detailed analysis of quantifiable economic impacts of the University's on-going operations on employment, labor income, value added, total economic output and public revenues is presented in the sections that follow.

A. Employment Impacts from On-Going University Operations Supported Over 16,300 Jobs

Over 16,300 jobs for Florida residents result directly or indirectly from the on-going operations of Florida A&M University, summarized in Table 3. Each year University operations directly create 10,733 permanent jobs throughout the economy. However, the **indirect and induced job creation process reaches deeply into all sectors of the economy**. This dramatically and quickly demonstrates the close supply inter-relationships that the Knowledge-Based Services sector has with all of the other sectors of the economy. An additional 2,300 jobs are supported via indirect economic effects, mostly through direct suppliers of goods and services to the University and its students. Lastly 3,280 jobs are generated from induced spending effects. **Therefore, the total number of jobs, directly, indirectly and induced, supported by the proposed expansion is estimated at 16,313 – making a significant contribution to employment opportunities in Florida.**

Table 3. Permanent Jobs Created On-Going University Operations

<i>Industry</i>	<i>Total Impact*</i>
Knowledge-Based Services	11,887
Retail Trade	2,402
Wholesale Trade & Transportation Services	1,016
Visitor Industry	670
Government & Other	177
Manufacturing	121
Construction	40
Total:	16,313

*Total number of jobs created by industry category (*direct, indirect and induced*). Detail in Table A-2.
 Source: The Washington Economics Group, Inc.

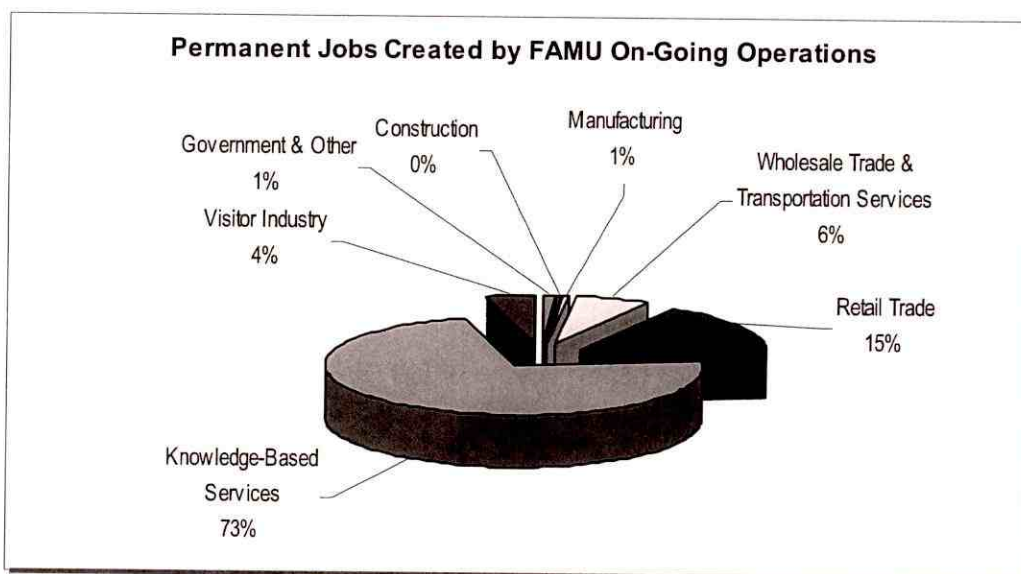


Figure 1
 Source: The Washington Economics Group, Inc.

Employees supported by the economic impact of the University's on-going operations are found in a wide variety of industries and represent a broad spectrum of occupations. Seventy-three (73) percent of the total jobs created are in Knowledge-Based Services, 15 percent are in the Retail Trade Industry, and 6 percent are in the Wholesale Trade and Transportation Services Industry. The remaining jobs (6 percent of the total) are spread throughout other areas of the economy. Therefore, the on-going operations of the University become an important provider of job opportunities in a wide variety of occupations as shown in Figure 1.

B. Generation of Labor Income: The University's On-Going Operations Contribute to Florida's Standard of Living

The on-going operations of the University are also an important generator of Labor Income for workers as quantified in Table 4 below. **In addition to the \$306 million of Labor Income directly generated by University operations, \$192 million of Labor Income, or 39 percent, is created by indirect and induced economic activities. In total, on-going University operations generate \$499 million in Labor Income each year.** An estimated \$381 million, or 76 percent of the total, results from Knowledge-Based Services. Retail Trade comprises \$56 million, or 11 percent of the total Labor Income impact. The remaining \$62 million, or 13 percent, of Labor Income is generated in other industries of the Florida economy. Figure 2 presents the percentage of Labor Income in each industry category.

Table 4. Labor Income Resulting from FAMU On-Going Operations (\$ in Thousands)

<i>Industry</i>	<i>Total Impact</i>
Knowledge-Based Services	380,781
Retail Trade	55,820
Wholesale Trade & Transportation Services	30,412
Visitor Industry	12,728
Government & Other	11,410
Manufacturing	5,519
Construction	1,675
Total:	498,744

Source: The Washington Economics Group, Inc. Detail in Table A-3.

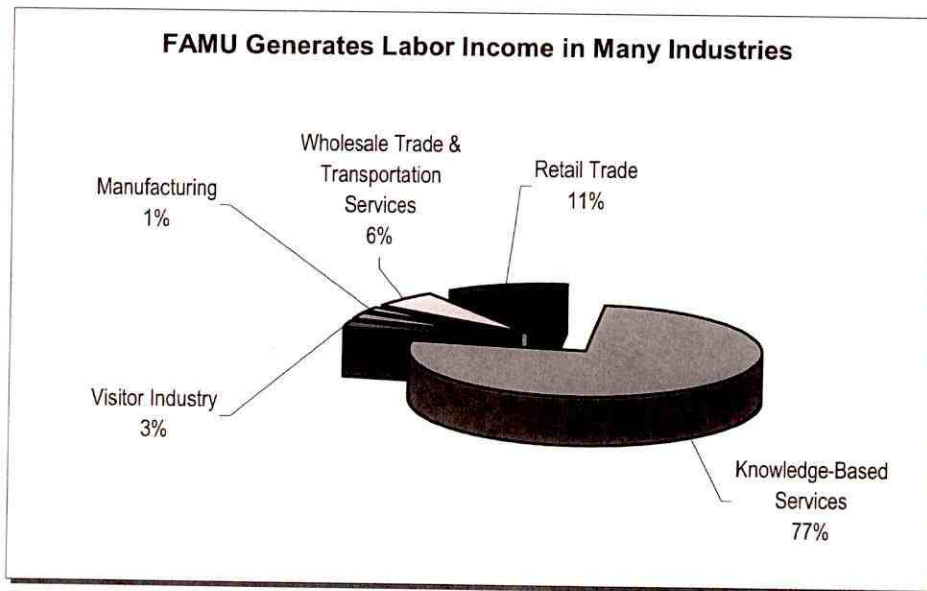


Figure 2
Source: The Washington Economics Group, Inc.

C. The University's On-Going Operations have Value-Added Impacts that are Significant for State Productivity

Value added is the portion of business revenues that is available to pay compensation to workers, capital income and indirect business taxes⁴. Value added is also the principal source of income to households and a key measure of the contribution to the economy made by the routine operations of the University. Table 5 highlights the value-added impacts generated by the on-going operations of the University,

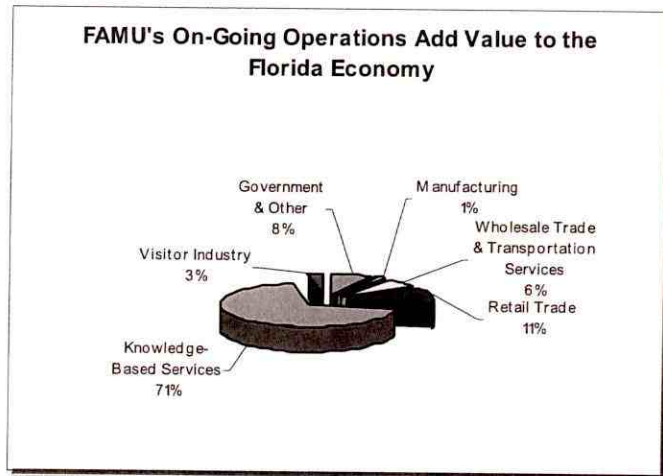


Figure 3
Source: The Washington Economics Group, Inc.

which create a net contribution to the economy of over \$728 million. By this measure, FAMU supports the drive to create a high value-added, high-wage economy in Florida. The greatest value-added impacts are generated in the Knowledge-Based Services where \$514 million, or 70 percent, of the total Value-added is created. Retail Trade generates \$83 million, or 11 percent, followed by other sectors such as Government & Other, Wholesale Trade and the Visitor Industries.

Table 5. Value Added Created by FAMU On-Going Operations (\$ in Thousands)

Industry	Total Impact
Knowledge – Based Services	513,546
Retail Trade	83,089
Government & Other	56,030
Wholesale Trade & Transportation Services	45,940
Visitor Industry	19,335
Manufacturing	9,039
Construction	1,976
Total:	728,954

Source: The Washington Economics Group, Inc. Detail in Table A-4

D. The Total Economic Impact of On-Going University Operations is a Significant \$1.257 Billion: Important for Florida

A comprehensive measure of total economic impact is *Gross Economic Output*, representing the sum of gross revenues (receipts) of private firms plus the value of

⁴ Value added also includes compensation to government workers.

government services (valued at cost). Table 6 highlights the total economic impact of on-going operations of the University, estimated at \$1.257 billion. An important portion of the total economic impact occurs in the Knowledge-Based Services sector representing 72 percent of the total. Many other industries also benefit. Outside of the two previously mentioned, the largest impacts occur in Retail Trade, Government & Other, and Wholesale Trade and Transportation Services, with impacts of 11 percent, 6 percent and 6 percent respectively. The remaining impact, 5 percent of the total, is spread through the other sectors of the economy.

Table 6. Total Economic Impact Created from FAMU On-Going Operations (\$ in Thousands)

<i>Industry</i>	<i>Total Impact</i>
Knowledge – Based Services	898,503
Retail Trade	135,633
Government & Other	78,925
Wholesale Trade & Transportation Services	74,486
Visitor Industry	36,386
Manufacturing	29,006
Construction	4,005
Total:	1,256,945

Source: The Washington Economics Group, Inc. Detail in Table A-1.

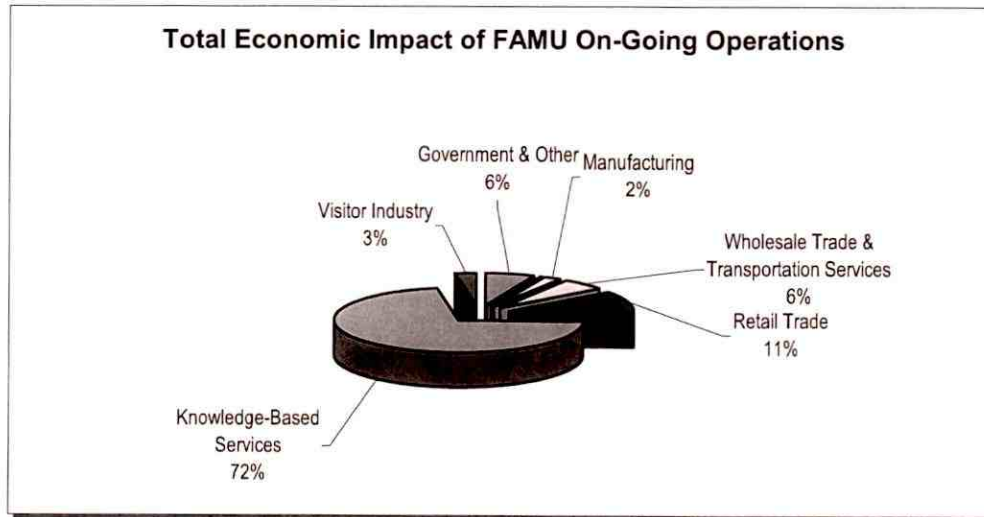


Figure 4

Source: The Washington Economics Group, Inc.

E. FAMU On-Going Operations Contribute to Public Revenues

On-going University operations result in increases in government revenues for federal, state, and local entities in Florida (Table 7). **Over \$178 million of annual fiscal revenues result from these activities.** Of this total, \$116 million, or 65 percent, flow to

the federal government, with the remaining \$63 million, or 35 percent, of tax revenues allocated to State and local governments.

Table 7. Fiscal Contributions* of FAMU On-Going Operations (\$ in Millions)

<i>Taxes Paid By</i>	<i>Federal Taxes</i>	<i>State/Local Taxes</i>	<i>Total Taxes</i>
Labor	\$ 52	\$ 1	\$ 53
Capital	2	----	2
Households	45	3	48
Corporations	12	6	18
Indirect Business Taxes	<u>6</u>	<u>52</u>	<u>58</u>
Total:	\$116	\$63	\$179

*Includes taxes resulting from direct, indirect, and induced activities

Source: The Washington Economics Group, Inc.

F. Florida A&M University Graduates are an Important Talent Pool for the State and Effect a Major Economic Impact for Florida

Florida A&M University awards in excess of 2,000 undergraduate, graduate, and professional degrees each academic year. During the 2003-2004 academic year (the latest available data) FAMU awarded over 1,600 undergraduate degrees and over 500 graduate and professional degrees. These University graduates are a valuable resource for the State, forming a key pool of talent that makes important contributions to all phases of Florida's economic, political and social life.

Numerous studies have been conducted over the years to demonstrate the value of higher education. These studies have consistently demonstrated significant positive financial returns to the successful completion of a higher education degree. As part of the 2000 Census, the Census Bureau gathered data on income and education throughout the nation. This data showed that both in Florida and the nation college graduates have significantly higher incomes than individuals who only complete a high school degree. Individuals who complete an advanced program of study and obtain a graduate or professional degree have even greater earnings potential, more than doubling the median income of an individual with a high school degree.

2000 Florida Median Annual Earnings by Educational Attainment

Degree Received	Median Annual Income	Increased Income vs. High School
High School	\$ 25,305	--
Bachelor's Degree	\$40,296	\$14,991
Advanced Degree	\$50,806	\$25,501

Source: The Washington Economics Group, Inc.

Florida receives most of the benefit from this investment in human capital. The FAMU office of Alumni Affairs estimates that approximately three quarters of all FAMU graduates remain in the State once they complete their education. Based on these graduation rates and income differentials and conservative estimates of the length of time individuals remain in the workforce once they complete their education, this Study estimates that the recurring *direct* impact of all FAMU alumni residing in Florida at \$1.191 billion annually. **As FAMU alumni save and invest this added income each year, these activities will create additional jobs and economic opportunities for Floridians.**

The total recurring (annual) economic impacts are important to overall economic growth and the well-being of Florida. An estimated 20,563 jobs for State residents are permanently created by the additional income attributable to FAMU alumni. The analysis that follows presents specific categories of the economic impacts summarized in Table 8, starting with permanent employment creation.

Utilizing the same methodology employed in the analysis of the University's on-going operations, in addition to the *direct* economic impacts discussed above, *indirect* and *induced* economic impacts were calculated using an extended input-output model of the Florida economy. These comprehensive *direct*, *indirect* and *induced* economic impacts that recur every year are summarized in Table 8.

Table 8. Summary of Annual Recurring Economic Impacts Generated by FAMU Alumni

<i>Impact on:</i>	<i>Direct</i>	<i>Indirect & Induced</i>	<i>Total Impact</i>
Employment (Jobs)	8,232	12,331	20,563
Labor Income (\$ Mil.)	261	481	742
Gross State Product (Value Added \$ Mil.)	505	751	1,256
State & Local Tax Revenues (\$ Mil.)	-----	-----	121
Total Economic Impact (\$ Mil.)	1,191	1,228	2,419

Source: The Washington Economics Group, Inc.

G. Employment Impacts: FAMU Florida Alumni's Added Earning Power Creates 20,563 Permanent Jobs

The number of jobs created by the FAMU Florida alumni's added earnings is summarized in Table 9. Of the 20,563 jobs generated by the FAMU alumni, 51 percent are in Knowledge-Based Services Industries, 15 percent are in Retail Trade, and 11

percent are in Government and Other Industries. **The Knowledge-Based Services Sector is emphasized for growth by Florida's economic development entities as it is a key producer of high-wage occupations.** The remaining jobs are in the Visitor Industry, Wholesale Trade and Transportation Services, and a range of other occupations.

Table 9. Permanent Jobs Created by FAMU Florida Alumni's Added Earnings

<i>Industry</i>	<i>Total Impact</i>
Knowledge – Based Services	10,457
Retail Trade	3,065
Government & Other	2,263
Visitor Industry	2,126
Wholesale Trade and Transportation Services	1,174
Construction	1,088
Manufacturing	390
Total:	20,563

Source: The Washington Economics Group, Inc. Detail in Table A-6.

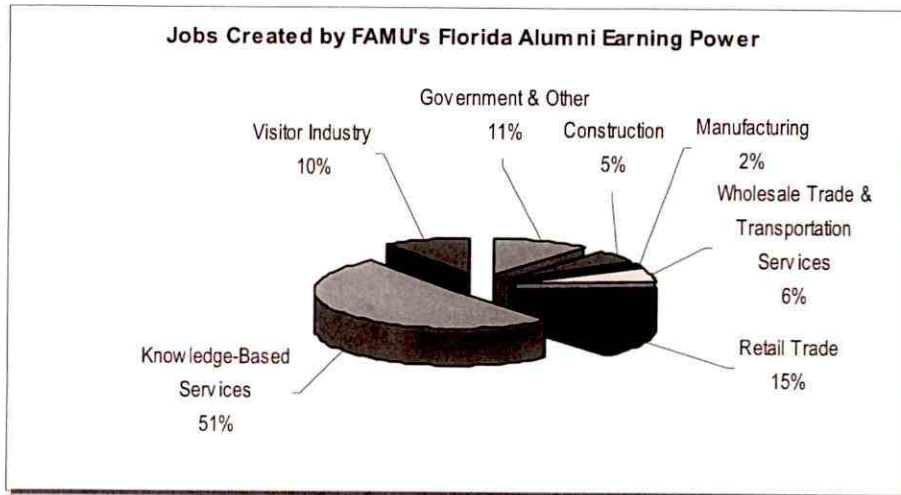


Figure 5

Source: The Washington Economics Group, Inc.

Employees supported by the recurring economic activities resulting from FAMU's Florida alumni earning power are found in a wide variety of industries and represent a broad spectrum of occupations as shown in Figure 5.

H. Generation of Recurring Labor Income: FAMU Florida Alumni Earnings Create Jobs that Contribute to the Standard of Living of Florida

The added earnings of FAMU's Florida alumni are important generators of Labor Income for Florida residents. Many of the jobs will be in sectors that pay above-average wages for the State, as quantified in Table 10. In addition to the \$261 million of Labor Income

directly generated each year by the alumni's activities, \$481 million of Labor Income, or 65 percent, is created by indirect and induced economic activities. **In total, the alumni's added earnings generate over \$742 million in Labor Income each year.**

Table 10. Annual Labor Income Impact Resulting from FAMU Florida Alumni's Added Earnings (\$ in Thousands)

<i>Industry</i>	<i>Total Impact</i>
Knowledge – Based Services	374,938
Government & Other	122,856
Retail Trade	81,680
Wholesale Trade & Transportation Services	58,965
Construction	45,092
Visitor Industry	39,006
Manufacturing	19,763
Total:	742,298

Source: The Washington Economics Group, Inc. Detail in Table A-7.

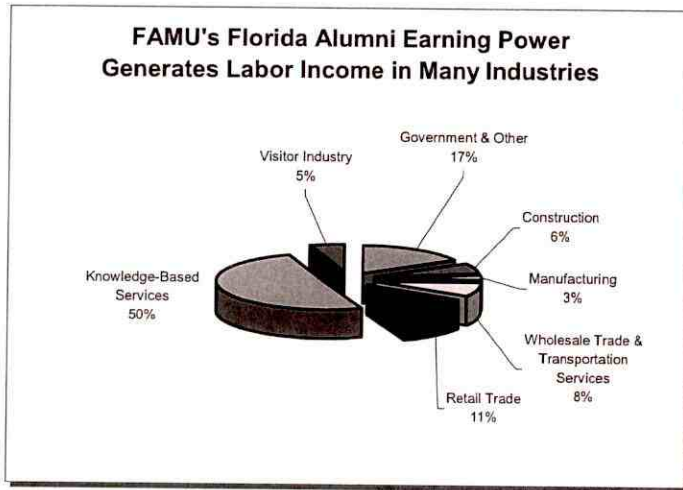


Figure 6
Source: The Washington Economics Group, Inc.

Of the \$742.3 million of Labor Income generated by the added income of the alumni, \$374.9 million, or 51 percent is produced by the Knowledge-Based Services sector and \$122.9 million or 17 percent is created in the Government & Other sector. The remaining 32 percent is created in the Retail Trade sector, the Visitor Industry and in a range of other occupations.

I. FAMU Florida Alumni's Added Earning Power Creates Recurring Value-Added Impacts that Result in a Significant Increase in Economic Activity

Recurring value added is the portion of business revenues that is available to pay compensation to workers, capital income and indirect business taxes⁵. Value added is also the principal source of income to households and a key measure of the alumni's on-going

⁵ Value added also includes compensation to government workers.

contributions to the economy. An area's economic output is measured by its aggregate value added. Table 11 highlights the value added on-going impacts generated by the alumni's added earnings. The greatest value-added impacts are generated in the Knowledge-Based Services where \$534.1 million, or 43 percent, of the total Value Added is created. The Government & Other sector generates \$355.8 million, or 28 percent of total Value Added, followed by the Retail Trade sector, which generates \$130.1 million, or 10 percent of the total Value Added each year. The remaining sectors generate the other 19 percent of the additions to Value Added each year.

Table 11. Recurring Value Added Created by FAMU Florida Alumni's Added Earnings
(\$ in Thousands)

<i>Industry</i>	<i>Total Impact</i>
Knowledge-Based Services	534,141
Government & Other	355,760
Retail Trade	130,068
Wholesale Trade and Transportation Services	95,472
Visitor Industry	58,046
Construction	53,264
Manufacturing	29,625
Total:	1,256,376

Source: The Washington Economics Group, Inc. Detail in Table A-8.

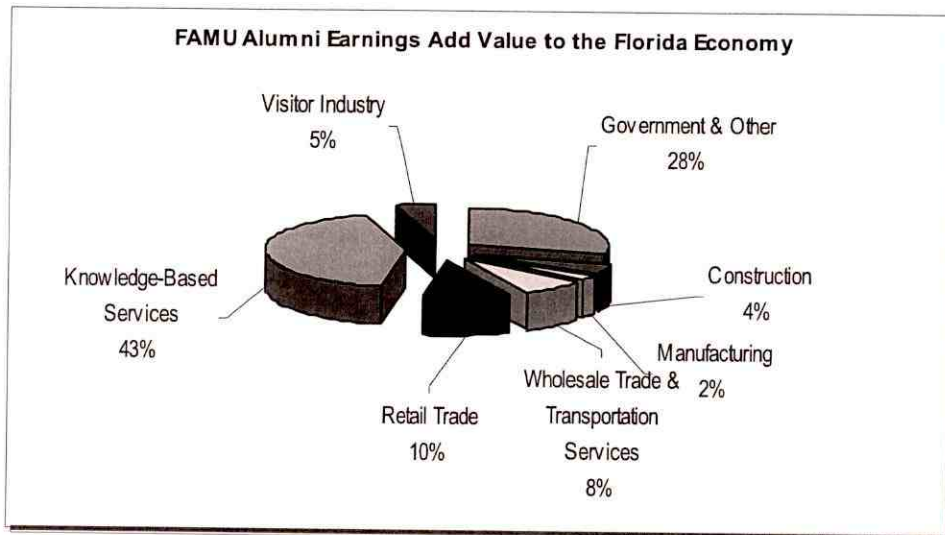


Figure 7

Source: The Washington Economics Group, Inc.

J. The Total Annual Economic Impact Arising from FAMU Florida Alumni's Added Earnings is a Significant \$2.418 Billion

A comprehensive measure of total economic impact is *Gross Economic Output*, representing the sum of gross revenues (receipts) of private firms plus the value of government services (valued at cost). Table 12 highlights the total annual economic impact of the FAMU Florida alumni's added earnings power resulting from their education.

The economic activities occurring each year as a result of the alumni's higher incomes represent a significant \$2.418 billion in total annual economic impact. As in the other impact measures, a significant portion of the total economic impact occurs in the Knowledge-Based Services, Government & Other, and Retail Trade Industries representing 38 percent, 33 percent and 8 percent of the total, respectively. A number of other industries also benefit, as shown in Table 12 and Figure 8.

Table 12. Total Annual Economic Impact Arising from the Added Earning Power of FAMU Florida Alumni (\$ in Thousands)

<i>Industry</i>	<i>Total Impact</i>
Knowledge – Based Services	921,807
Government & Other	808,331
Retail Trade	204,513
Wholesale Trade and Transportation Services	151,321
Construction	113,890
Visitor Industry	112,293
Manufacturing	106,687
Total:	2,418,841

Source: The Washington Economics Group, Inc. Detail in Table A-5.

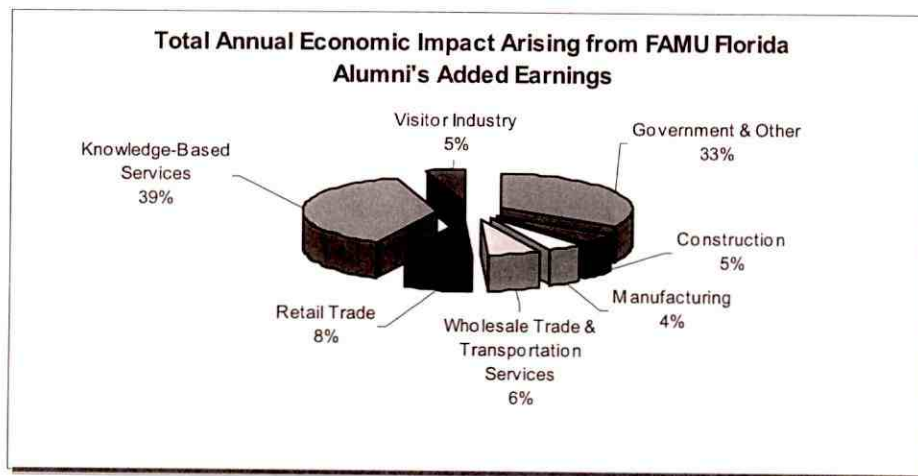


Figure 8

Source: The Washington Economics Group, Inc.

K. FAMU Florida Alumni's Added Earnings Generate Important Contributions to Public Revenues

The Added Earnings of FAMU Florida Alumni result in significant tax and other public revenues each year for federal, state, and local governments as shown in Table 12. Over \$306.9 million of fiscal revenues are generated each year by economic activity attributable to the added income of the FAMU Florida Alumni. Of this total, \$186.1 million, or 61 percent, flow to the federal government, with the remaining \$120.9 million, or 39 percent, of tax revenues allocated to State and local governments.

Table 13. Recurring Fiscal Contributions of FAMU Florida Alumni (\$ in Thousands)

<i>Taxes Paid By</i>	<i>Federal Taxes</i>	<i>State/Local Taxes</i>	<i>Total Taxes</i>
Labor	\$ 76,628	\$ 1,521	\$ 78,149
Capital	2,630	-----	2,630
Households	66,401	4,854	71,255
Corporations	28,795	14,257	43,051
Indirect Business Taxes	11,610	100,260	111,870
Total:	\$186,064	\$ 120,891	\$306,955

Source: The Washington Economics Group, Inc.

In summary, the annual recurring economic impacts on jobs, labor income, value added, total economic impact and fiscal revenues are important to the State. Furthermore, the human capital formation arising from the education, research, and public-service missions of the University strongly support the State's efforts to create a high-wage economy through knowledge-based, high value-added production activities.

L. The Economic Impacts of Florida A&M University's Capital Projects

The University's capital projects will generate significant quantifiable economic impacts that will add to the on-going operations and alumni income economic impacts and externality benefits presented in prior sections. These impacts, estimated by utilizing professionally accepted and widely used methodology, result in statewide and local increases in high-wage employment, labor income, output and public revenues.

The expected \$172.8 million investment associated with the University's Capital Projects will generate economic impacts that extend beyond those **directly** related to the construction activities. These "spillover" or multiplier impacts are the result of each business activity's supply relationships with other firms operating within the region and

the State, the proportion of business value added⁶ that accrues to households in the form of labor and capital income, and the propensity of households to spend income on goods produced within the local area.

The *direct impact* of the University's Capital Projects is comprised of all the investments associated with project development, final design, construction and property acquisition, excluding amounts paid to purchase the land. With the assistance of the University management team, WEG obtained information on estimated expenditures for each project. During the course of the construction of the new facilities, the University expects to invest \$172.8 million on all phases of the projects. As currently envisioned by the University, the Capital Projects call for the construction of a wide range of educational, athletic and multi-purpose buildings. Also, additional residential living facilities are scheduled for construction along with upgrades to existing living facilities. Further projects call for electrical and communications upgrades throughout the University to better allow the University to fulfill its educational, research, and public service missions in the early years of the XXI Century.

Capital projects of this magnitude draw on resources throughout the State and create economic impacts that reach beyond the boundaries of the local area. To properly measure the principal impacts of these comprehensive projects, the *direct*, *indirect* and *induced* economic impacts of the Capital Projects expenditures were calculated using an extended input-output model of the Florida economy. These comprehensive economic impacts are summarized in Table 13.

Table 14. Summary of FAMU Capital Projects Economic Impacts

<i>Impact on:</i>	<i>Direct</i>	<i>Indirect & Induced</i>	<i>Total Impact</i>
Employment (Jobs)	2,036	1,409	3,445
Labor Income (\$ Mill.)	84	50	134
Value Added (\$ Mill.)	99	85	184
State & Local Tax Revenues (\$ Mill.)	-----	-----	11
Total Economic Impact (\$ Mill.)	173	144	317

Source: The Washington Economics Group, Inc.

A more detailed analysis of quantifiable economic impacts for the Capital Projects on employment, labor income, value added, total economic output and public revenues is presented in the sections that follow.

⁶“Value added” refers to the difference between business revenues and the cost of non-labor and non-capital inputs used to produce goods and/or services.

M. Employment Impacts from FAMU's Capital Projects Support 3,445 Jobs



Over 3,445 jobs for Florida residents result directly or indirectly from the proposed construction of the University's Capital Projects. This is summarized in Table 15. During the construction of these Projects, 2,036 jobs are created directly in the Construction and Manufacturing sectors. However, **the Capital Projects' indirect and induced job creation process reaches deeply into all sectors of the economy.**

This dramatically and quickly demonstrates the close supply inter-relationships that the Construction sector has with all of the other sectors of the economy. An additional 523 jobs are supported via indirect economic effects (mostly suppliers to the Projects). Lastly 886 jobs are generated from induced spending effects. **Therefore, the total number of jobs, directly, indirectly and induced, supported by the University's Capital Projects is estimated at 3,445 – making a significant contribution to employment opportunities in the local area and in Florida.**

Table 15. Jobs Created by FAMU's Capital Projects

<i>Industry</i>	<i>Total Impact*</i>
Construction	2,041
Knowledge-Based Services	782
Retail Trade	307
Visitor Industry	123
Wholesale Trade & Transportation Services	102
Manufacturing	55
Government & Other	36
Total:	3,445

*Total number of jobs created by industry category (*direct, indirect and induced*). Detail in Table A-10.

Source: The Washington Economics Group, Inc.

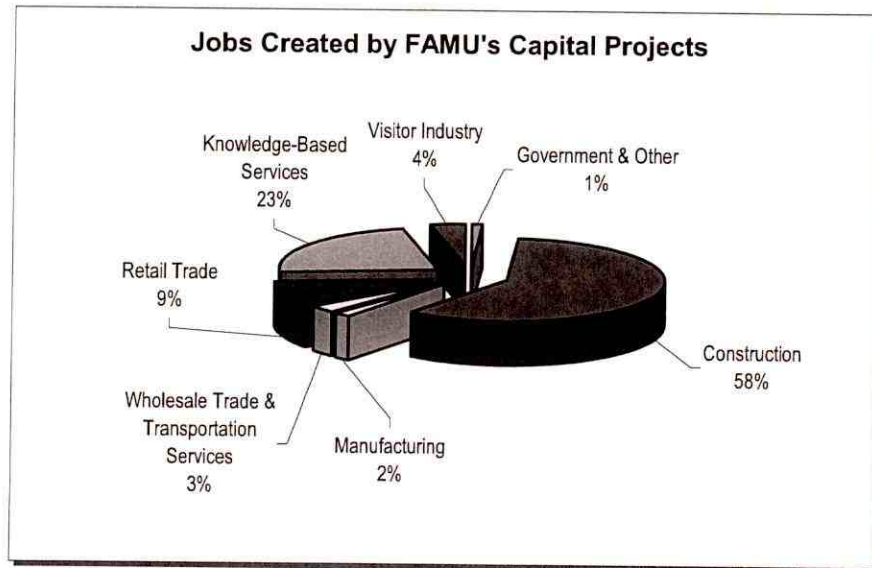


Figure 9
 Source: The Washington Economics Group, Inc.

Jobs supported by the total economic impact of the University's Capital Projects are found in a wide variety of industries and represent a broad spectrum of occupations. Fifty-eight (58) percent of the total jobs created are in the Construction Industry, 23 percent are in the Knowledge-Based Services Industries, and 9 percent are in the Retail Trade Industry. The remaining jobs (10 percent of the total) are spread throughout other areas of the economy. Therefore, once underway, the construction of the University's Capital Projects will be an important provider of job opportunities in a wide variety of occupations as shown in Figure 9 above.

N. Generation of Labor Income: FAMU's Capital Project Contributes to Florida's Standard of Living

The development and construction of the University's Capital Projects are also important generators of Labor Income for workers and quantified in Table 16. **In addition to the \$84 million of Labor Income directly generated by the Capital Projects, \$50 million of Labor Income, or 37 percent, is created by indirect and induced economic activities. In total, the University's Capital Projects will generate \$134 million in Labor Income during the construction phase.** An estimated \$84 million, or 63 percent of the total, results from Construction-related activities. Knowledge-Based Services comprise \$30 million, or 22 percent of the total Labor Income impact. The remaining \$20 million, or 15 percent of Labor Income, is generated in other industries of the Florida economy. Figure 10 presents the percentage of Labor Income in each industry category.

Table 16. Labor Income Resulting from FAMU's Capital Projects (\$ in Thousands)

<i>Industry</i>	<i>Total Impact</i>
Construction	84,037
Knowledge-Based Services	29,966
Retail Trade	7,995
Wholesale Trade & Transportation Services	5,055
Manufacturing	2,529
Visitor Industry	2,249
Government and Other	2,225
Total:	134,055

Source: The Washington Economics Group, Inc. Detail in Table A-11.

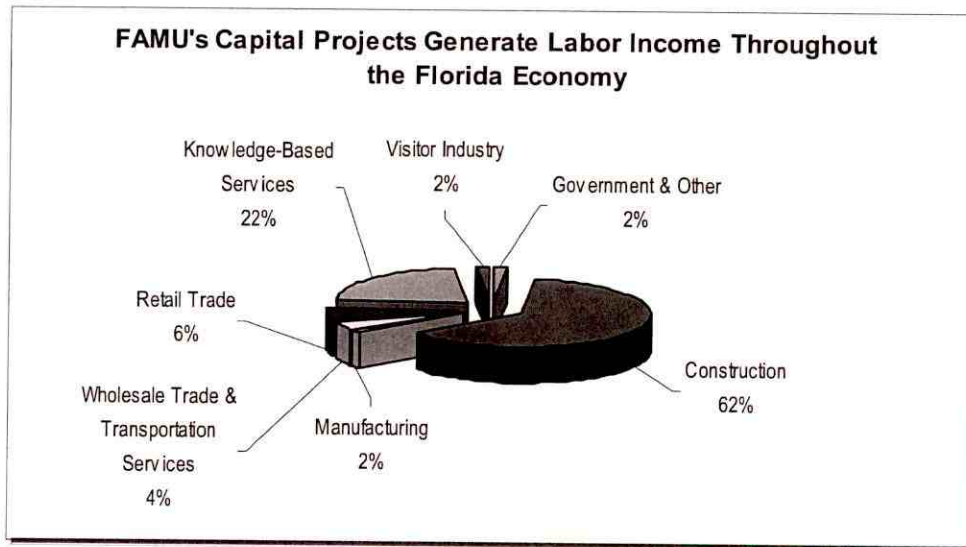


Figure 10

Source: The Washington Economics Group, Inc.

O. Florida A&M University's Capital Projects Value-Added Impacts: Significant for State and Local Productivity

Value added is the portion of business revenues that is available to pay compensation to workers, capital income and indirect business taxes⁷. Value added is also the principal source of income to households and a key measure of the University's Capital Projects contribution to the economy. Table 17 highlights the value-added impacts generated by the Capital Projects, which create a net contribution to the economy of over \$183 million. By this measure, the University's Capital Projects support the drive to create a high value added, high wage economy in Florida. The greatest value-added impacts are generated in the Construction Industry where \$99 million, or 54 percent, of the total is created.

⁷ Value added also includes compensation to government workers.

Knowledge-Based Services generate \$42 million, or 23 percent, followed by other sectors such as Wholesale Trade, Manufacturing and Government & Other.

Table 17. Value Added Created by FAMU's Capital Projects (\$ in Thousands)

<i>Industry</i>	<i>Total Impact</i>
Construction	99,455
Knowledge – Based Services	42,288
Government & Other	13,666
Retail Trade	13,093
Wholesale Trade & Transportation Services	8,177
Manufacturing	3,742
Visitor Industry	3,341
Total:	183,761

Source: The Washington Economics Group, Inc. Detail in Table A-12.

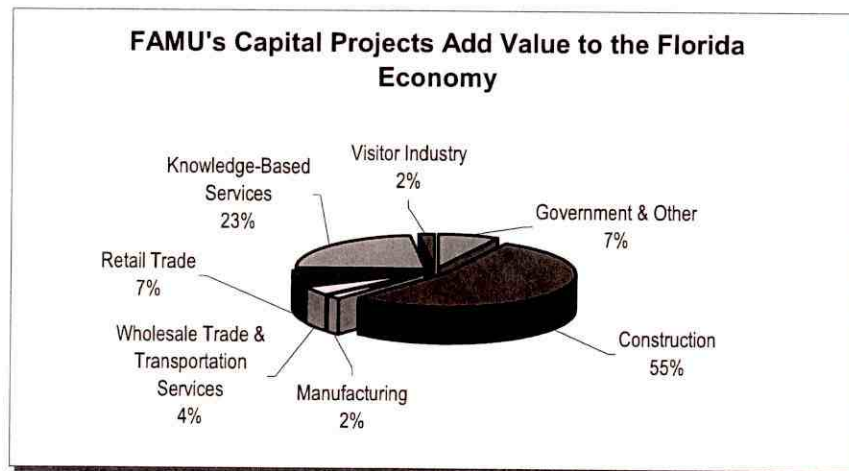


Figure 11
Source: The Washington Economics Group, Inc.

P. The Total Economic Impact of FAMU's Capital Projects is a Significant \$317 Million: Important for the Local Area and Florida

A comprehensive measure of total economic impact is *Gross Economic Output*, representing the sum of gross revenues (receipts) of private firms plus the value of government services (valued at cost). Table 18 highlights the total economic impact of FAMU's Capital Projects, estimated at \$317 million. An important portion of the total economic impact occurs in the Construction and Knowledge-Based Services representing 55 percent and 23 percent of the total, respectively. Many other industries also benefit. Outside of these two industries, the economic impact is very evenly distributed. All sectors are positively impacted, and the impacts range between 2 and 6 percent of the total impact.

Table 18. Total Economic Impact Created by FAMU's Capital Projects
(\$ in Thousands)

<i>Industry</i>	<i>Total Impact</i>
Construction	173,307
Knowledge – Based Services	73,112
Retail Trade	20,532
Government and Other	18,917
Wholesale Trade and Transportation Services	13,012
Manufacturing	12,102
Visitor Industry	6,466
Total:	317,448

Source: The Washington Economics Group, Inc. Detail in Table A-9.

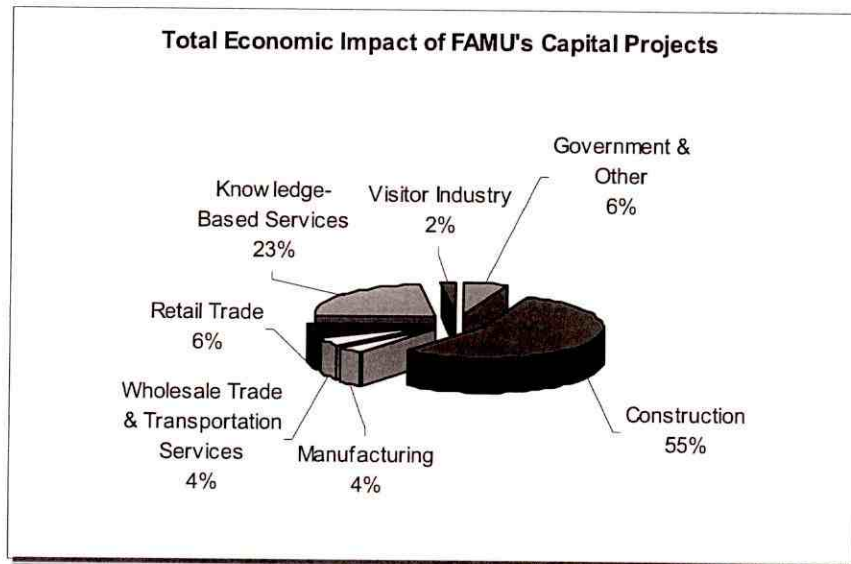


Figure 12
Source: The Washington Economics Group, Inc.

Q. The University's Capital Projects Contribute to Public Revenues

Florida A&M University's Capital Projects result in increases in government revenues for federal, state, and local entities in Florida (Table 19). **Over \$40 million of total fiscal revenues result from these Capital Projects.** Of this total, \$29 million, or 73 percent, flow to the federal government, with the remaining \$11 million, or 27 percent, of tax revenues allocated to State and local governments.

Table 19. Fiscal Contributions* of FAMU's Capital Projects (\$ In Millions)

<i>Taxes Paid By</i>	<i>Federal Taxes</i>	<i>State/Local Taxes</i>	<i>Total Taxes</i>
Labor	\$ 12.8	\$ 0.3	\$ 13.1
Capital	0.9	-----	0.9
Households	12.0	0.9	12.9
Corporations	2.9	1.4	4.3
Indirect Business Taxes	<u>1.0</u>	<u>8.5</u>	<u>9.5</u>
Total:	\$29.6	\$11.1	\$40.7

*Includes taxes resulting from direct, indirect, and induced activities.

Source: The Washington Economics Group, Inc.

APPENDIX I – METHODOLOGY

IMPLAN MODEL

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

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

$$\begin{aligned} X_1 &= a_{11}X_1 + a_{12}X_2 + a_{13}X_3 + \cdots + a_{1k}X_k + a_{1h}X_h + a_{1I}X_I + f_1 \\ X_2 &= a_{21}X_1 + a_{22}X_2 + a_{23}X_3 + \cdots + a_{2k}X_k + a_{2h}X_h + a_{2I}X_I + f_2 \\ X_3 &= a_{31}X_1 + a_{32}X_2 + a_{33}X_3 + \cdots + a_{3k}X_k + a_{3h}X_h + a_{3I}X_I + f_3 \\ &\vdots \\ X_k &= a_{k1}X_1 + a_{k2}X_2 + a_{k3}X_3 + \cdots + a_{kk}X_k + a_{kh}X_h + a_{kI}X_I + f_k \\ X_h &= a_{h1}X_1 + a_{h2}X_2 + a_{h3}X_3 + \cdots + a_{hk}X_k \\ X_I &= a_{I1}X_1 + a_{I2}X_2 + a_{I3}X_3 + \cdots + a_{Ik}X_k \end{aligned}$$

The variables x_1 to x_k represent total production of output in each industry. The coefficients a_{ij} represent the purchases from industry “i” that are needed to produce a dollar of output in industry “j”. These are known as the *direct requirement coefficients*. The variable x_h refers to household income and the coefficients a_{ih} refer to the average amount of household income spent on purchases from industry “i”, or the *average propensities to consume*. The coefficients a_{hi} are similar to the inter-industry purchases (a_{ij} 's), but they represent the household income that is generated from each dollar of output produced in industry “i”. Similarly the variable x_l represents regional spending on capital goods, and the coefficients a_{lj} represents the spending on capital goods for each dollar of output produced in industry “j”. The coefficients a_{jl} represent the amount purchased from industry “j” for each dollar spent on capital goods within the region. The variables f_j represent the exogenous final demand faced by each industry, respectively.

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

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

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

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

APPENDIX II – DETAILED IMPACT TABLES

DETAILED IMPACT TABLES

Within the main portion of this Study the economic impacts are presented at a summary level. *Direct*, *Indirect*, and *Induced* Impacts are aggregated into the Total Impact, and Industries are summarized by function. The following tables present detailed impacts at the two-digit NAICS industry classification level.

The following industry summarizations are used in this Study.

1. **Government and Other** is the sum of: Agriculture & Forestry, Mining, Utilities, Company Management, and Government & Other.
2. **Knowledge-Based Services** is the sum of: Information, Finance & Insurance, Real Estate, Professional Services, Administrative, Educational Services, Health & Social Services, Arts, Entertainment & Recreation, and Other Services.
3. **Wholesale Trade & Transportation Services** is the sum of: Wholesale Trade, and Transportation & Warehousing.
4. The **Accommodation and Food Services** sector was renamed to **Visitor Industry**.

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Florida A&M University On-Going Operations

Table A-1. Economic Output Impacts Arising from the Recurring Operations of FAMU
(\$ in Thousands)

<i>Industry</i>	<i>Impacts</i>			
	<i>Direct</i>	<i>Indirect</i>	<i>Induced</i>	<i>Total</i>
Agriculture & Forestry	0.0	599.2	1,751.2	2,350.4
Mining	0.0	715.0	925.0	1,640.0
Utilities	0.0	5,339.0	6,362.1	11,701.1
Construction	0.0	2,572.2	1,433.2	4,005.4
Manufacturing	0.0	11,963.4	17,042.9	29,006.3
Wholesale Trade	0.0	10,026.4	17,768.5	27,794.9
Transportation & Warehousing	26,642.9	10,568.6	9,479.2	46,690.7
Retail Trade	91,061.6	5,030.8	39,541.0	135,633.4
Information	30,455.9	23,030.6	12,935.4	66,421.9
Finance & Insurance	0.0	17,916.5	33,202.6	51,119.1
Real Estate	82,778.2	74,420.5	20,543.5	177,742.2
Professional Services	0.0	30,355.9	15,710.5	46,066.4
Company Management	0.0	6,903.0	3,912.3	10,815.3
Administrative	0.0	26,153.1	8,632.9	34,786.0
Educational Services	426,289.6	4,063.6	4,344.2	434,697.4
Health & Social Services	0.0	12.9	51,640.8	51,653.7
Arts, Entertainment & Recreation	1,168.8	2,681.2	5,687.0	9,537.0
Accommodation & Food Services	10,042.1	4,740.6	21,603.5	36,386.2
Other Services	0.0	8,356.5	18,123.0	26,479.5
Government & Other	0.0	4,156.4	48,261.4	52,417.8
Total:	668,439.1	249,605.4	338,900.2	1,256,944.7

Source: The Washington Economics Group, Inc.

Table A-2. Employment Impacts Arising from the Recurring Operations of FAMU

<i>Industry</i>	<i>Impacts</i>			
	<i>Direct</i>	<i>Indirect</i>	<i>Induced</i>	<i>Total</i>
Agriculture & Forestry	0.0	10.9	21.6	32.5
Mining	0.0	2.7	3.5	6.2
Utilities	0.0	9.6	12.2	21.8
Construction	0.0	25.9	14.3	40.2
Manufacturing	0.0	61.1	60.2	121.3
Wholesale Trade	0.0	64.1	113.6	177.7
Transportation & Warehousing	607.3	135.4	96.0	838.7
Retail Trade	1,734.1	74.7	592.9	2,401.7
Information	116.8	105.1	45.6	267.5
Finance & Insurance	0.0	121.6	193.5	315.1
Real Estate	601.2	546.4	158.2	1,305.8
Professional Services	0.0	259.8	146.0	405.8
Company Management	0.0	38.7	21.9	60.6
Administrative	0.0	473.5	160.2	633.7
Educational Services	7,481.3	63.6	86.9	7,631.8
Health & Social Services	0.0	0.1	659.2	659.3
Arts, Entertainment & Recreation	16.6	65.9	91.1	173.6
Accommodation & Food Services	175.4	80.9	413.3	669.6
Other Services	0.0	136.0	358.2	494.2
Government & Other	0.0	23.8	31.6	55.4
Total:	10,732.7	2,299.8	3,280.0	16,312.5

Source: The Washington Economics Group, Inc.

Table A-3. Labor Income Impacts Arising from the Recurring Operations of FAMU
(\$ in Thousands)

<i>Industry</i>	<i>Impacts</i>			<i>Total</i>
	<i>Direct</i>	<i>Indirect</i>	<i>Induced</i>	
Agriculture & Forestry	0.0	235.9	457.3	693.2
Mining	0.0	57.1	70.2	127.3
Utilities	0.0	1,080.7	1,299.4	2,380.1
Construction	0.0	1,076.1	598.6	1,674.7
Manufacturing	0.0	3,019.5	2,899.5	5,919.0
Wholesale Trade	0.0	3,767.6	6,676.8	10,444.4
Transportation & Warehousing	10,862.7	5,217.3	3,887.5	19,967.5
Retail Trade	38,091.2	1,899.3	15,829.0	55,819.5
Information	6,405.0	6,041.1	2,841.9	15,288.0
Finance & Insurance	0.0	6,706.6	10,434.9	17,141.5
Real Estate	14,342.4	13,186.7	3,731.2	31,260.3
Professional Services	0.0	13,086.6	7,516.3	20,602.9
Company Management	0.0	3,153.3	1,787.2	4,940.5
Administrative	0.0	12,733.0	4,228.1	16,961.1
Educational Services	232,577.1	1,773.3	2,411.9	236,762.3
Health & Social Services	0.0	4.9	27,367.4	27,372.3
Arts, Entertainment & Recreation	582.7	1,397.1	2,416.7	4,396.5
Accommodation & Food Services	3,549.8	1,673.3	7,505.2	12,728.3
Other Services	0.0	3,555.5	7,441.0	10,996.5
Government & Other	0.0	1,468.9	1,799.6	3,268.5
Total:	306,410.9	81,133.8	111,199.7	498,744.4

Source: The Washington Economics Group, Inc.

Table A-4. Value-Added Impacts Arising from the Recurring Operations of FAMU
(\$ in Thousands)

<i>Industry</i>	<i>Impacts</i>			<i>Total</i>
	<i>Direct</i>	<i>Indirect</i>	<i>Induced</i>	
Agriculture & Forestry	0.0	310.6	929.1	1,239.7
Mining	0.0	137.6	172.2	309.8
Utilities	0.0	3,522.0	4,109.7	7,631.7
Construction	0.0	1,273.1	702.7	1,975.8
Manufacturing	0.0	4,369.3	4,670.0	9,039.3
Wholesale Trade	0.0	6,853.6	12,145.8	18,999.4
Transportation & Warehousing	15,467.5	6,426.6	5,046.0	26,940.1
Retail Trade	54,734.0	3,218.7	25,136.0	83,088.7
Information	9,237.4	10,249.3	5,970.3	25,457.0
Finance & Insurance	0.0	10,266.4	18,111.8	28,378.2
Real Estate	57,944.5	51,111.2	13,488.0	122,543.7
Professional Services	0.0	16,928.0	9,363.1	26,291.1
Company Management	0.0	4,305.6	2,440.3	6,745.9
Administrative	0.0	16,180.8	5,303.0	21,483.8
Educational Services	232,240.1	2,708.6	2,616.3	237,565.0
Health & Social Services	0.0	6.5	31,547.8	31,554.3
Arts, Entertainment & Recreation	797.9	1,647.5	3,596.5	6,041.9
Accommodation & Food Services	5,577.8	2,661.9	11,095.2	19,334.9
Other Services	0.0	4,642.6	9,588.1	14,230.7
Government & Other	0.0	2,179.6	37,923.6	40,103.2
Total:	375,999.2	148,999.5	203,955.5	728,954.2

Source: The Washington Economics Group, Inc.

Total Annual Economic Impacts of FAMU Florida Alumni

Table A-5. Economic Output Impacts Arising from the Increased Earnings of FAMU
(\$ in Thousands)

<i>Industry</i>	<i>Impacts</i>			
	<i>Direct</i>	<i>Indirect</i>	<i>Induced</i>	<i>Total</i>
Agriculture & Forestry	2,985.3	2,233.3	3,771.2	8,989.8
Mining	133.8	2,432.6	2,235.4	4,801.8
Utilities	11,207.1	5,773.2	14,543.3	31,523.6
Construction	0.0	4,770.1	109,120.2	113,890.3
Manufacturing	27,877.5	22,064.5	56,745.4	106,687.4
Wholesale Trade	38,999.8	12,974.1	45,079.7	97,053.6
Transportation & Warehousing	18,054.0	13,098.6	23,114.5	54,267.1
Retail Trade	109,494.9	10,194.9	84,822.8	204,512.6
Information	18,901.2	21,549.8	29,394.0	69,845.0
Finance & Insurance	64,339.8	41,776.2	66,605.4	172,721.4
Real Estate	17,484.5	35,417.9	48,055.5	100,957.9
Professional Services	15,592.0	33,076.4	54,755.1	103,423.5
Company Management	0.0	12,056.6	9,106.1	21,162.7
Administrative	5,008.1	22,732.3	23,612.9	51,353.3
Educational Services	17,427.5	614.9	8,481.7	26,524.1
Health & Social Services	165,108.4	1,436.2	96,657.7	263,202.3
Arts, Entertainment & Recreation	18,503.0	2,191.8	10,804.4	31,499.2
Accommodation & Food Services	63,457.7	6,987.3	41,847.5	112,292.5
Other Services	56,600.7	8,134.3	37,545.5	102,280.5
Government & Other	540,049.7	4,149.3	197,653.8	741,852.8
Total:	1,191,225.0	263,664.3	963,952.1	2,418,841.4

Source: The Washington Economics Group, Inc.

Table A-6. Employment Impacts Arising from the Additional Income that FAMU Florida Alumni Receive as a Result of their Higher Education

<i>Industry</i>	<i>Impacts</i>			
	<i>Direct</i>	<i>Indirect</i>	<i>Induced</i>	<i>Total</i>
Agriculture & Forestry	31.4	34.7	45.1	111.2
Mining	0.5	9.3	8.6	18.4
Utilities	22.3	10.6	27.7	60.6
Construction	0.0	46.8	1,041.6	1,088.4
Manufacturing	95.0	90.7	203.8	389.5
Wholesale Trade	249.4	83.0	288.3	620.7
Transportation & Warehousing	154.0	160.1	238.8	552.9
Retail Trade	1,643.2	151.4	1,270.1	3,064.7
Information	56.6	85.9	104.1	246.6
Finance & Insurance	321.6	288.5	392.1	1,002.2
Real Estate	171.0	249.3	364.7	785.0
Professional Services	158.6	298.2	545.3	1,002.1
Company Management	0.0	67.5	51.0	118.5
Administrative	74.5	440.0	440.4	954.9
Educational Services	362.5	10.2	167.6	540.3
Health & Social Services	2,173.8	11.7	1,235.2	3,420.7
Arts, Entertainment & Recreation	278.7	45.4	173.7	497.8
Accommodation & Food Services	1,200.2	130.0	796.2	2,126.4
Other Services	1,166.3	132.2	708.9	2,007.4
Government & Other	72.4	24.4	1,857.4	1,954.2
Total:	8,232.0	2,369.9	9,960.6	20,562.5

Source: The Washington Economics Group, Inc.

Table A-7. Labor Income Impacts Arising from the Additional Income that FAMU Florida Alumni Receive (\$ in Thousands)

<i>Industry</i>	<i>Impacts</i>			<i>Total</i>
	<i>Direct</i>	<i>Indirect</i>	<i>Induced</i>	
Agriculture & Forestry	858.9	549.2	986.1	2,394.2
Mining	8.4	190.1	187.4	385.9
Utilities	2,305.3	1,172.6	2,963.4	6,441.3
Construction	0.0	1,958.3	43,133.2	45,091.5
Manufacturing	4,232.5	4,599.9	10,930.3	19,762.7
Wholesale Trade	14,654.8	4,875.3	16,939.5	36,469.6
Transportation & Warehousing	6,238.5	6,562.3	9,694.8	22,495.6
Retail Trade	44,044.2	3,849.0	33,786.9	81,680.1
Information	3,537.2	5,259.0	6,653.7	15,449.9
Finance & Insurance	17,308.8	15,658.4	21,174.3	54,141.5
Real Estate	3,701.3	6,130.8	8,691.2	18,523.3
Professional Services	7,712.1	15,494.7	29,209.7	52,416.5
Company Management	0.0	5,507.5	4,159.7	9,667.2
Administrative	2,032.7	11,503.7	11,832.3	25,368.7
Educational Services	9,942.9	301.5	4,665.0	14,909.4
Health & Social Services	87,428.1	505.2	51,186.3	139,119.6
Arts, Entertainment & Recreation	7,527.7	1,099.3	4,608.5	13,235.5
Accommodation & Food Services	22,004.7	2,449.2	14,551.9	39,005.8
Other Services	23,102.3	3,509.6	15,161.2	41,773.1
Government & Other	4,138.2	1,331.1	98,497.7	103,967.0
Total:	260,778.6	92,506.7	389,013.1	742,298.4

Source: The Washington Economics Group, Inc.

Table A-8. Value-Added Impacts Arising from the Increased Earnings of FAMU Florida Alumni (\$ in Thousands)

<i>Industry</i>	<i>Impacts</i>			
	<i>Direct</i>	<i>Indirect</i>	<i>Induced</i>	<i>Total</i>
Agriculture & Forestry	1,834.7	925.4	1,968.0	4,728.1
Mining	22.1	461.5	449.2	932.8
Utilities	7,160.7	3,790.1	9,406.5	20,357.3
Construction	0.0	2,301.7	50,962.2	53,263.9
Manufacturing	7,038.3	6,808.5	15,778.2	29,625.0
Wholesale Trade	26,658.8	8,868.7	30,814.8	66,342.3
Transportation & Warehousing	8,488.4	8,102.7	12,538.1	29,129.2
Retail Trade	69,567.0	6,522.8	53,978.5	130,068.3
Information	8,718.3	9,774.6	13,661.3	32,154.2
Finance & Insurance	31,655.9	24,201.5	36,731.7	92,589.1
Real Estate	10,156.3	23,765.6	31,474.5	65,396.4
Professional Services	9,677.8	19,206.0	33,089.1	61,972.9
Company Management	0.0	7,520.1	5,679.8	13,199.9
Administrative	2,712.7	14,263.1	14,722.3	31,698.1
Educational Services	10,472.0	372.9	5,118.8	15,963.7
Health & Social Services	100,703.3	707.5	58,992.5	160,403.3
Arts, Entertainment & Recreation	11,742.8	1,329.1	6,831.6	19,903.5
Accommodation & Food Services	32,752.0	3,696.7	21,597.2	58,045.9
Other Services	29,626.1	4,408.2	20,025.6	54,059.9
Government & Other	136,376.1	2,269.0	177,897.0	316,542.1
Total:	505,363.3	149,295.7	601,716.9	1,256,375.9

Source: The Washington Economics Group, Inc.

Economic Impacts of FAMU Capital Projects

Table A-9. Economic Output Arising from FAMU's Capital Projects (\$ in Thousands)

<i>Industry</i>	<i>Impacts</i>			
	<i>Direct</i>	<i>Indirect</i>	<i>Induced</i>	<i>Total</i>
Agriculture & Forestry	0.0	224.0	473.2	697.2
Mining	0.0	161.8	249.9	411.7
Utilities	0.0	604.8	1,719.1	2,323.9
Construction	172,763.7	155.6	387.3	173,306.6
Manufacturing	0.0	7,497.0	4,605.1	12,102.1
Wholesale Trade	0.0	3,437.0	4,801.2	8,238.2
Transportation & Warehousing	0.0	2,212.7	2,561.4	4,774.1
Retail Trade	0.0	9,847.7	10,684.4	20,532.1
Information	0.0	2,028.6	3,495.3	5,523.9
Finance & Insurance	0.0	3,172.3	8,971.8	12,144.1
Real Estate	0.0	3,069.7	5,551.0	8,620.7
Professional Services	0.0	14,380.8	4,245.1	18,625.9
Company Management	0.0	982.5	1,057.1	2,039.6
Administrative	0.0	2,763.8	2,332.7	5,096.5
Educational Services	0.0	40.1	1,173.8	1,213.9
Health & Social Services	0.0	1.6	13,953.6	13,955.2
Arts, Entertainment & Recreation	0.0	130.9	1,536.7	1,667.6
Accommodation & Food Services	0.0	628.3	5,837.5	6,465.8
Other Services	0.0	1,366.8	4,896.9	6,263.7
Government & Other	0.0	404.2	13,040.8	13,445.0
Total:	172,763.7	53,110.2	91,573.9	317,447.8

Source: The Washington Economics Group, Inc.

Table A-10. Employment Impacts Arising from FAMU's Capital Projects

<i>Industry</i>	<i>Impacts</i>			<i>Total</i>
	<i>Direct</i>	<i>Indirect</i>	<i>Induced</i>	
Agriculture & Forestry	0.0	1.6	5.8	7.4
Mining	0.0	0.6	1.0	1.6
Utilities	0.0	1.1	3.3	4.4
Construction	2,035.5	1.7	3.9	2,041.1
Manufacturing	0.0	38.4	16.3	54.7
Wholesale Trade	0.0	22.0	30.7	52.7
Transportation & Warehousing	0.0	23.2	26.0	49.2
Retail Trade	0.0	146.3	160.2	306.5
Information	0.0	7.4	12.3	19.7
Finance & Insurance	0.0	19.4	52.3	71.7
Real Estate	0.0	20.7	42.7	63.4
Professional Services	0.0	142.1	39.4	181.5
Company Management	0.0	5.5	5.9	11.4
Administrative	0.0	58.9	43.3	102.2
Educational Services	0.0	0.7	23.5	24.2
Health & Social Services	0.0	0.0	178.1	178.1
Arts, Entertainment & Recreation	0.0	2.7	24.6	27.3
Accommodation & Food Services	0.0	11.2	111.7	122.9
Other Services	0.0	17.2	96.8	114.0
Government & Other	0.0	2.4	8.5	10.9
Total:	2,035.5	523.1	886.3	3,444.9

Source: The Washington Economics Group, Inc.

Table A-11. Labor Income Arising from FAMU's Capital Projects (\$ in Thousands)

<i>Industry</i>	<i>Impacts</i>			
	<i>Direct</i>	<i>Indirect</i>	<i>Induced</i>	<i>Total</i>
Agriculture & Forestry	0.0	49.5	123.6	173.1
Mining	0.0	14.5	19.0	33.5
Utilities	0.0	122.1	351.1	473.2
Construction	83,805.5	69.3	161.8	84,036.6
Manufacturing	0.0	1,745.1	783.5	2,528.6
Wholesale Trade	0.0	1,291.5	1,804.1	3,095.6
Transportation & Warehousing	0.0	909.4	1,050.4	1,959.8
Retail Trade	0.0	3,717.9	4,277.2	7,995.1
Information	0.0	490.5	767.9	1,258.4
Finance & Insurance	0.0	1,069.4	2,819.7	3,889.1
Real Estate	0.0	540.7	1,008.2	1,548.9
Professional Services	0.0	7,279.0	2,031.0	9,310.0
Company Management	0.0	448.8	482.9	931.7
Administrative	0.0	1,526.0	1,142.5	2,668.5
Educational Services	0.0	21.2	651.7	672.9
Health & Social Services	0.0	0.6	7,394.8	7,395.4
Arts, Entertainment & Recreation	0.0	67.5	653.0	720.5
Accommodation & Food Services	0.0	220.9	2,028.0	2,248.9
Other Services	0.0	491.7	2,010.6	2,502.3
Government & Other	0.0	126.9	486.2	613.1
Total:	83,805.5	20,202.5	30,047.2	134,055.2

Source: The Washington Economics Group, Inc.

Table A-12. Value Added Created by FAMU's Capital Projects (\$ in Thousands)

<i>Industry</i>	<i>Impacts</i>			
	<i>Direct</i>	<i>Indirect</i>	<i>Induced</i>	<i>Total</i>
Agriculture & Forestry	0.0	82.9	251.1	334.0
Mining	0.0	33.9	46.5	80.4
Utilities	0.0	396.3	1,110.5	1,506.8
Construction	99,183.2	81.7	189.9	99,454.8
Manufacturing	0.0	2,480.1	1,261.9	3,742.0
Wholesale Trade	0.0	2,349.4	3,281.9	5,631.3
Transportation & Warehousing	0.0	1,181.9	1,363.5	2,545.4
Retail Trade	0.0	6,300.7	6,792.0	13,092.7
Information	0.0	965.0	1,613.2	2,578.2
Finance & Insurance	0.0	1,878.3	4,894.1	6,772.4
Real Estate	0.0	1,789.2	3,644.5	5,433.7
Professional Services	0.0	8,041.2	2,530.0	10,571.2
Company Management	0.0	612.9	659.4	1,272.3
Administrative	0.0	1,829.3	1,432.9	3,262.2
Educational Services	0.0	22.6	706.9	729.5
Health & Social Services	0.0	0.8	8,524.3	8,525.1
Arts, Entertainment & Recreation	0.0	81.8	971.8	1,053.6
Accommodation & Food Services	0.0	342.5	2,998.1	3,340.6
Other Services	0.0	771.8	2,590.7	3,362.5
Government & Other	0.0	225.2	10,247.4	10,472.6
Total:	99,183.2	29,467.5	55,110.6	183,761.3

Source: The Washington Economics Group, Inc.

APPENDIX III
THE WASHINGTON ECONOMICS GROUP, INC.
QUALIFICATIONS

J. Antonio Villamil

- ❖ Tony Villamil has over twenty-five years of successful experience as a business economist and high-level policymaker at both federal and state governments. He has served as a U.S. Undersecretary of Commerce for Economic Affairs and is currently Chief Executive Officer of The Washington Economics Group, an economics and business consulting practice now in its second decade of operations. His areas of specialization are in economic analysis, economic development, trade policy, the U.S. Hispanic market and the Florida economy.
- ❖ Dr. Villamil is a member of President Bush Advisory Committee on Trade Policy and Negotiations, and most recently served as Chairman of the Governor's Council of Economic Advisors of Florida. During 1999-2000, he directed the Tourism, Trade and Economic Development activities of the State in the Executive Office of Governor Jeb Bush. Presently, he is on the Board of Directors of the Spanish Broadcasting System (NASDAQ), CommerceBank, N.A. and Enterprise Florida – the State's principal economic development organization. Among other leadership positions, he served during 2006 on the Property Tax Reform Committee of Florida and is currently Chairman of the Economic Roundtable of the Beacon Council – Miami-Dade County's official economic development organization. After winning the Gubernatorial elections in November 2006, then Governor-elect Charlie Crist appointed him as his Economic Advisor during the transition period.
- ❖ Tony completed his undergraduate, graduate and doctoral studies in Economics at Louisiana State University (LSU). In 1991, Florida International University (FIU) awarded him a doctoral degree in Economics (*HC*), for "distinguished contributions to the Nation in the field of economics." Dr. Villamil publishes widely on economics and trade policy topics, and is an adjunct professor of Competitive Strategy in the Executive and Professional MBA programs of Florida International University (FIU). He was Senior Fellow of the Latin American and Caribbean Center of FIU from 1993-1994.

Charles K. Yaros

- ❖ Chuck Yaros is an Associate Consultant for Economics at The Washington Economics Group, Inc. (WEG). He serves as economic consultant in the areas of financial economics and economic impact studies. Prior to joining WEG he was Vice President and Portfolio Strategist at Shay Financial Services in Miami where he specialized in developing, implementing and managing interest rate risk and capital optimization strategies for financial institutions.
- ❖ Mr. Yaros has over 20 years of experience as a business and financial economist, having worked in a number of positions of progressive responsibility in the South Florida business community. Additionally, he has spoken and taught courses on financial risk management.
- ❖ Chuck received his undergraduate degree in Economics with Honors from Trinity College and his Master's degree in Economics from Duke University, where he also completed course work for the Ph.D. degree.
- ❖ Chuck and his family are residents of Coral Gables, Florida.

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

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

EXCLUSIVE CONSULTING APPROACH:

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

PREMIER CONSULTING SERVICES:

Comprehensive Corporate Expansion Services for Florida. Our seamless and customized service includes site selection analysis, development of incentive strategies and community and governmental relations.

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

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

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

www.weg.com

