#### Baccalaureate Degree Program Proposal Recommendations from the Division of Florida Colleges Baccalaureate Review Team for Consideration by the Commissioner of Education

A collaborative review was conducted by the Baccalaureate Review Team members, including staff from the Division of Florida Colleges and the Florida Colleges Budget Office. Written recommendations were submitted to the college by the review team, college staff revised the proposal, and submitted the final proposal, which is now complete and ready for consideration by the Commissioner of Education.

Direct questions or concerns to Abbey Ivey at 850-245-9492 or abbey.ivey@fldoe.org.

College	Degree Type	Degree Program	Date Submitted to SBOE
Florida Gateway College	BAS	Industrial Logistics <i>No alternative proposals were received for this program.</i>	1/21/14

"Within 45 days following receipt of a completed proposal by the Division of Florida Colleges, the Commissioner of Education shall recommend approval or disapproval of the proposal to the State Board of Education." Section 1007.33 (5)(e), F.S.

Co	mments	Summary
A	Planning Process	Florida Gateway College's (FGC) proposed Bachelor of Applied Science (BAS) in Industrial Logistics will provide graduates with the skills necessary for the efficient and cost-effective management of industrial products throughout the global supply chain. This program has been under development at FGC for several years, and the college notes it was built on the strength of FGC's Employ Florida Banner Center for Global Logistics, which was located at FGC's Public Service Training Center until 2012. The Banner Center was a consortium of Florida public and private colleges and universities, and its statewide advisory council was comprised of top business leaders and experts in the field. FGC notes regular meetings were held to cultivate curricula, communications, and talent, and the meetings provided a venue for discussions with area postsecondary institutions regarding the development of certificate and degree programs. FGC also partnered with Hanover Research to analyze program demand, and letters of support from business and industry are located in the Supplemental Materials. FGC reached out to the University of Florida (UF), Florida State University (FSU), and the University of North Florida (UNF) regarding the development of this program (correspondence is located in the Supplemental Materials). UF provided a letter of support, as did St. Leo University (SLU) and North Florida Community College.
В	Program Implementation Timeline	The projected implementation date of upper division enrollment is August 2014. The complete timeline of implementation activities is located in Section B of the proposal.
С	Workforce Demand/Unmet Need Specific to Program Area	FGC's service area (includes counties from Workforce Regions 7 and 8) is part of the 14-county North Central Rural Areas of Critical Economic Concern (RACEC) region, with one of two designated RACEC catalyst sites located in Columbia County near the college's main campus. The RACEC region encompasses Workforce Regions 6 and 7, and also includes counties from Workforce Regions 8 and 9. The college notes that although the intent of this degree is to enhance the immediate region's skilled workforce, the program will be offered 100 percent online and thus can also serve the needs of the entire state.

		<ul> <li>FGC cites the Florida Department of Economic Opportunity (DEO) and reports 5,280 current jobs within the FGC and RACEC areas. Data from Employ Florida Marketplace shows 86 estimated job openings in the greater FGC region, and the DEO estimates 246 annual job openings in Workforce Regions 6 through 9. Statewide, the college reports 1,566 estimated annual job openings, using DEO data.</li> <li>There are no state universities in FGC's service district, and no related degrees have been awarded by nonpublic postsecondary institutions in the region. The Hanover Research report included in Appendix E states local competition "for an Industrial Logistics bachelor's degree program is virtually nonexistent."</li> <li>FGC states insufficient data are currently available to project the regional employment gap due to the projected growth and development of the RACEC region. The college is preparing to meet the future demand from the development of jobs to the region. In addition, FGC discusses Florida's growing international trade activities that support the need for this program, including the designation of the nearby RACEC catalyst site as an inland port, expansion of the Panama Canal, and the dredging of JaxPort.</li> </ul>
D	Facilities and Equipment Specific to Program Area	FGC maintains no new facilities or equipment will be needed to support this program as it will be offered 100 percent online.
E	Library/Media Specific to Program Area	The college has allocated \$20,000 for the first year, \$5,000 for the second year, and \$3,000 for each successive year for the purchase of library resources to augment the current collection, including print resources, databases, and e-books.
F	Academic Resources Specific to Program Area	The college currently has one full-time faculty member and five part-time faculty members to teach in this program. The college hired one full-time faculty member to teach upper division courses, to be supplemented by additional part-time faculty in year two of the program. Additional support personnel will be added as full-time equivalency (FTE) increases.
G	Cost to Students	The cost for four years of study at FGC and other regional postsecondary institutions, as reported by FGC: FGC = \$13,112 UF = \$20,178 FSU = \$20,791 UNF = \$19,634 SLU = \$21,933 Jacksonville University = \$105,960
H	Academic Content	Admission to this program requires an Associate in Science (AS) degree in a related discipline or an Associate in Arts (AA) degree. The program is composed of 60-64 credits from the associate degree, 9 credits of additional general education or lower division technical courses (depending upon if the student is an AS or AA graduate), and 51 credits of upper division courses.
Ι	Enrollment, Performance and Budget Plan	FGC anticipates 15 enrolled students during the first year and 35 students by the third year of operation. The program will be supported primarily through tuition and fees, as well as program enhancement funds. The full budget is located on page 36.
J	Plan of Action if Program Must be Terminated	In the event of program termination, FGC would stop accepting new students and engage in a three year teach out to allow appropriate time for currently enrolled students to complete the degree.

**Recommendation: Approve** 

Vice Chancellor for Academic and Student Affairs, Division of Florida Colleges

Juli alia

Date <u>12/18/13</u>

**Recommendation:** Approve

**Chancellor, Division of Florida Colleges** 

Randy Henne Date <u>12/19/13</u>

# **Bachelors of Applied Science** Industrial Logistics



Florida Gateway College 149 SE College Place Lake City, FL 32025-2007 (386) 752-1822 www.fgc.edu



# Start Here. Go Anywhere!

#### THE FLORIDA COLLEGE SYSTEM

#### BACCALAUREATE PROPOSAL APPROVAL APPLICATION

#### **COVER SHEET**

#### **INSTITUTION:** Florida Gateway College

#### **BACCALAUREATE DEGREE CONTACTS:**

#### PRIMARY

Name: Tracy Hickman, Ph.D. Title: Vice President, Occupational Programs Phone: 386-754-4324 Email: <u>Tracy.Hickman@fgc.edu</u>

#### SECONDARY

Name: John Piersol Title: Executive Director, Agricultural and Industrial Programs Phone: 386-754-4225 Email: John.Piersol@fgc.edu

## DEGREE TYPE (BS, BAS, other): BAS DEGREE TITLE: Industrial Logistics TOTAL NUMBER OF CREDIT HOURS: 120 PROPOSED DEGREE SIX-DIGIT CIP CODE: 52.0203 Business-Logistics and Material Management

## PLANNED PROGRAM IMPLEMENTATION DATE: Fall 2014 PROGRAM DESCRIPTION/EMPLOYMENT OPTIONS FOR GRADUATES:

The Bachelor of Applied Science (BAS) in Industrial Logistics is designed to provide a cost-effective higher education opportunity for students in Florida Gateway College's service area and the entire state. Graduates will be prepared to meet the demands of the logistics & distribution industry as highly skilled employees through a 100% online BAS program. Graduates will have the skills necessary for the efficient and cost-effective management of industrial products throughout the global supply chain. As competition in the logistics and manufacturing sectors become more dependent on the management of global supply chains, graduates with management capabilities and knowledge specific to the area of building component design and manufacturing, production and operations management, marketing, international trade, warehousing and distribution, and management information systems are becoming an increasingly critical resource.

Florida Gateway College (FGC) graduates will have the ability to manage the integration of logistics and distribution functions throughout the supply chain management process. They will be highly skilled technical managers who can lead and develop teams; manage costs; schedule and manage projects; integrate procurement, production, logistics and distribution, information systems and marketing functions across the entire supply chain from procurement of raw materials to consumer consumption.

## **BOARD OF TRUSTEES APPROVAL DATE: November 12, 2013**

#### PRESIDENT'S SIGNATURE AND DATE:

Original application and subsequent revision submission must include a current signature/date.

Florida Gateway College BAS in Industrial Logistics 1

Date: 12/11/13

<b>Table of Contents</b>
--------------------------

Execut	tive Summary	3
Evalua	ation Criteria	
A.	Planning Process	9
B.	Program Implementation Timeline	13
C.	Workforce Demand/Unmet Need Specific to Program Area	14
D.	Facilities and Equipment Specific to Program Area	21
E.	Library/Media Specific to Program Area	22
F.	Academic Resources Specific to Program Area	23
G.	Cost to Students	24
H.	Academic Content	26
I.	Enrollment, Performance and Budget Plan	30
J.	Plan of Action if Program Must be Terminated	
K.		
	Appendix A: Enrollment, Performance and Budget Plan	
	Appendix B: Industrial Logistics at FGC – Addendum to Section C	
	Appendix C: Letters of Support	
		40
	<ul> <li>Plum Creek</li> </ul>	40 41
	<ul><li>Plum Creek.</li><li>Dive Rite</li></ul>	40 41 42
	<ul> <li>Plum Creek.</li> <li>Dive Rite</li> <li>Hunter Panels</li> </ul>	40 41 42 43
	<ul> <li>Plum Creek.</li> <li>Dive Rite</li> <li>Hunter Panels</li> <li>TIMCO</li> </ul>	40 41 42 43 44
	<ul> <li>Plum Creek.</li> <li>Dive Rite</li> <li>Hunter Panels</li> <li>TIMCO</li> <li>BlueLinx</li> </ul>	40 41 42 43 43 44 45
	<ul> <li>Plum Creek.</li> <li>Dive Rite</li> <li>Hunter Panels</li> <li>TIMCO</li> <li>BlueLinx</li> <li>CDT Inc</li> </ul>	40 41 42 43 44 45 46
	<ul> <li>Plum Creek.</li> <li>Dive Rite</li> <li>Hunter Panels</li> <li>TIMCO</li> <li>BlueLinx</li> <li>CDT Inc</li> <li>Florida Crown Workforce Board, Inc. Region 7</li> </ul>	40 41 42 43 44 45 46 47
	<ul> <li>Plum Creek.</li> <li>Dive Rite</li> <li>Hunter Panels</li> <li>TIMCO</li> <li>BlueLinx</li> <li>CDT Inc</li> <li>Florida Crown Workforce Board, Inc. Region 7</li> <li>Walmart Logistics</li> </ul>	40 41 42 43 44 45 46 47 48
	<ul> <li>Plum Creek.</li> <li>Dive Rite</li> <li>Hunter Panels</li> <li>TIMCO</li> <li>BlueLinx</li> <li>CDT Inc</li> <li>Florida Crown Workforce Board, Inc. Region 7</li> <li>Walmart Logistics</li> <li>Columbia County Industrial Development Authority</li> </ul>	40 41 42 43 44 45 46 47 48 49
	<ul> <li>Plum Creek.</li> <li>Dive Rite</li> <li>Hunter Panels</li> <li>TIMCO</li> <li>BlueLinx</li> <li>CDT Inc</li> <li>Florida Crown Workforce Board, Inc. Region 7</li> <li>Florida Crown Workforce Board, Inc. Region 7</li> <li>Walmart Logistics</li> <li>Columbia County Industrial Development Authority</li> <li>Baker County Chamber of Commerce</li> </ul>	40 41 42 43 44 45 46 47 48 49 50
	<ul> <li>Plum Creek.</li> <li>Dive Rite</li> <li>Hunter Panels</li> <li>TIMCO</li> <li>BlueLinx</li> <li>CDT Inc</li> <li>Florida Crown Workforce Board, Inc. Region 7</li> <li>Florida Crown Workforce Board, Inc. Region 7</li> <li>Walmart Logistics</li> <li>Columbia County Industrial Development Authority</li> <li>Baker County Chamber of Commerce</li> <li>North Florida Community College</li> </ul>	40 41 42 43 44 45 46 47 48 49 50 51
	<ul> <li>Plum Creek.</li> <li>Dive Rite</li> <li>Hunter Panels</li> <li>TIMCO</li> <li>BlueLinx</li> <li>CDT Inc</li> <li>Florida Crown Workforce Board, Inc. Region 7</li> <li>Florida Crown Workforce Board, Inc. Region 7</li> <li>Walmart Logistics</li> <li>Columbia County Industrial Development Authority</li> <li>Baker County Chamber of Commerce</li> <li>North Florida Community College</li> <li>National Science Foundation</li> </ul>	40 41 42 43 43 44 45 46 47 48 49 50 51 52
	<ul> <li>Plum Creek.</li> <li>Dive Rite</li> <li>Hunter Panels</li> <li>TIMCO</li> <li>BlueLinx</li> <li>CDT Inc</li> <li>Florida Crown Workforce Board, Inc. Region 7</li> <li>Florida Crown Workforce Board, Inc. Region 7</li> <li>Columbia County Industrial Development Authority</li> <li>Baker County Chamber of Commerce</li> <li>North Florida Community College</li> <li>National Science Foundation</li> <li>Saint Leo Univeristy</li> </ul>	40 41 42 43 43 44 45 46 47 48 49 50 51 52 53

# **EXECUTIVE SUMMARY**

**Institution:** Florida Gateway College **Degree Type:** Bachelor of Applied Science **Degree Title:** Industrial Logistics

# A. PLANNING PROCESS

## Internal

The planning process began in fall, 2008, with a regular review of the college's mission, long term goals, and strategic plan. A series of meetings and discussion groups were held with administrators, faculty, staff and students before presenting a proposal to pursue baccalaureate programs to FGC's District Board of Trustees (BOT) on May 18, 2010. The Program Development Committee was formed in October, 2010, which developed the curriculum necessary to meet this segment of workers. In March, 2011, the BOT approved this new bachelor's degree for presentation to the Department of Education (DOE). The plan to implemented was delayed by Florida Gateway College (FGC) in response to the continued economic challenges nationwide that impacted this industry. In the spring of 2013, FGC hired a new full-time faculty in Logistics and Supply Chain, who reviewed the proposed curriculum and degree and made recommendations to change the degree to include only one Associate of Science degree track (Supply Chain) from the original two (Engineering Technology and Supply Chain). This change was presented again to the BOT for approval in the November 2013 meeting before final submission to the DOE. Internal planning will continue until program implementation which is scheduled for fall of 2014.

## External

There are no state universities in Florida Gateway College's service district. Saint Leo University, which is a private university located on FGC's campus, does not offer a degree in the subject area. FGC, the University of North Florida, and Polk State College were partners with the Employ Florida Banner Center for Global Logistics, which was housed and managed by Florida Gateway College from 2007-2012, when the contract ended. Together, with a consortium of Florida colleges and universities, they served as a resource for logistics and distribution industry leaders. Regular Advisory Council meetings provided a venue for need, impact, and demand discussions for education, training, and professional development needs in the state of Florida regarding supply chain and global logistics.

The Dean of Occupational Programs and the Director of FGC's Employ Florida Banner Center for Global Logistics collaborated with nearby colleges and universities through attendance at the advisory council meetings. Discussions, statistical analysis, industry studies and presentations provided data that indicated a need for bachelor degree programs related to logistics and distribution and other industries supported by this field in Florida Gateway College's service district and around the state. FGC received support for development of a bachelor's program from regional colleges and universities, as well as business and industry leaders. (Appendix C)

Florida Gateway College received a letter of support from the University of Florida, North Florida Community College and others as a part of the communication process over a two-year period.

# **B. PROGRAM IMPLEMENTATION TIMELINE**

Summary Timeline for Bachelor of Applied Science in Industrial Logistics			
North Central Rural Area of Critical Economic Concern (RACEC) Target Industry			
report released	May 2007		
DBOT Study Session Baccalaureate Degrees	February 2009		
Discussion Groups with Campus and Community	September 2009-November 2009		
Meeting with Deans and Program Developer	November 2009		
DBOT Study Session-5 Areas Chosen for Baccalaureate Degree	April 2010		
DBOT Approval of 5 areas for Baccalaureate Degrees	May 2010		
Based on need, demand, and finances the Executive Council and Administrative	June 2010-July 2010		
Council chose 3of the 5 areas to pursue at this time (Nursing, Early Childhood			
Education, Industrial Logistics)			
Hanover Research contracted to provide workforce and educational needs analysis in	August 2010-February 2011		
Industrial Logistics industry	August 2010-rebluary 2011		
Letter of Intent submitted to DOE	November 2010		
Notification of Level Change to SACS	January 2011		
Draft of DOE Application submitted to FGC Educational Affairs Committee (EAC)	February 2011		
DOE Application submitted for DBOT approval	March 8, 2011		
DOE Application submitted upon DBOT approval	March 2011		
Submit Level Change Application to SACS	September 2011		
SACS Approval for Level Change	December 2011		
SACS Substantive Change Visit-Level Change	February 2013		
SACS Final Level Change Approval	June 2013		
SBOE Approval for BS Industrial Logistics	November 2013		
SACS Prospectus Submitted for Industrial Logistics	January 2014		
Program Offered	August 2014		

# C. WORKFORCE DEMAND/UNMET NEED SPECIFIC TO PROGRAM AREA

Workforce demand for a skilled labor force with a bachelor's level education in the global logistics and manufacturing industry is based on projected industry growth and job openings. Enterprise Florida's 2010-2015 Strategic Plan for Economic Development identifies strategies that are vital for Florida's economic growth and global competitiveness. These strategies stress the importance of expanding and transforming foundational industries and anticipating the emergence of new industries in order to stimulate economic growth and compete in the global market. Directly impacting Florida Gateway College's service area is the development of the North Florida INTERMODAL PARK a couple of miles from the main campus. The site, owned and managed by Plum Creek, the country's largest land owner, is also the location of one of two Rural Area of Critical Economic Concern (RACEC) catalyst sites in the region. Plum Creek contracted with the Rockefeller Group in June 2013 to market this site internationally to companies for immediate development. This manufacturing and logistics site is 2,622 acres and will be expanded to accommodate business and industry over the next decade. Florida Gateway College anticipates an increasing demand for a highly skilled workforce in logistics and supply chain industries that will utilize knowledge and skills embedded in this degree to meet the needs of coming business and industry. This shift in activity at the INTERMODAL PARK has placed a renewed emphasis on the development of this degree track by Florida Gateway College in order to support the region and state's need for a highly qualified workforce for companies locating to this site and others in the RACEC region. Nearby, and impacting the FGC region, is the development and dredging of the port in Jacksonville to allow for larger cargo carriers.

JaxPort growth is pushing expansion west in the form of inland ports to move cargo around the southeast.

# D. FACILITIES AND EQUIPMENT SPECIFIC TO PROGRAM AREA

Florida Gateway College has sufficient facilities and equipment to support the Bachelor of Applied Science (BAS) in Industrial Logistics. This program will be 100% online, and no additional facilities or equipment are needed.

# E. LIBRARY/MEDIA SPECIFIC TO PROGRAM AREA

The library has a rich database collection that encompasses the subject area of Industrial Logistics. These include *Applied Science and Technology Full Text, Science Complete, JSTOR, Business Full Text, EBSCO Business Source Complete, Gale General Business File, Access Business News, General Science Full Text, and Academic Search Complete.* Included in the library's online access are 871 full text journals, 278 e-books, and 346 peer reviewed journals in the subject area. There are 48 items in the print collection. The library staff consists of two MLS professionals, three paraprofessional library technicians, and a cadre of student workers.

The library has requested \$20,000 for the opening day collection, \$5,000 for the second year, and \$3,000 for each successive year to maintain currency and relevance. The decidedly small print collection will be bolstered with more than 200 titles (publication date newer than 2006) that have been identified by librarians. The library will add subject specific databases, including Compendex from Elsevier, and ABI Inform Trade and Industry. Print journals will be added to the collection as well as more subject-specific e-books.

# F. ACADEMIC RESOURCES SPECIFIC TO PROGRAM AREA

The college hired one (1) full-time DBA credentialed faculty member in spring of 2013 to teach the current AS in Supply Chain Management and upper division industrial logistics courses. The addition of the BAS-IL will require increased use of the current adjunct pool. Faculty will be hired following credentialing requirements as required by the Southern Association of Colleges and Schools Commission on Colleges (SACS-COC). All other academic resources are in place for this program. This faculty member currently supports the AS in Supply Chain Management and will transition to the BAS level in 2014.

# G. COST TO STUDENTS

Estimated 2012/2013:	Lower Division per Credit Hour	Upper Division per Credit Hour		
Tuition	\$ 78.94	\$ 91.79		
Fees	\$ 24.38	\$ 28.54		
Total	<b>al</b> \$ 103.32 \$120.33			
4-Year Total Estimated Tuition & Fees:				
(69-73 lower division credit hrs x \$103.32) + (51 upper				
division credit hrs x \$120.33) = <b>\$13,112.82</b>				

The anticipated cost for four years of study at Florida Gateway College is:

The above estimate is based upon Florida resident tuition and fees for credit programs (A&P, PSV, EPI and College Prep) effective fall term 2013. Estimates do not reflect potential rate increases for tuition and/or fees.

# H. ACADEMIC CONTENT

The Bachelor of Applied Science (BAS) in Industrial Logistics (CIP 52.0203) is designed to produce graduates with the knowledge and skills to serve as middle management supervisors in the logistics and supply chain industry. The BAS Industrial Logistics program consists of 120-124 credit hours: 18 credits general education, 36 credits technical, and 6 credits professional elective courses. Students must have an Associate of Science (A.S.) degree in Supply Chain Management of at least sixty (60) credit hours, or an Associate of Arts (A.A.) degree of at least sixty (60) credit hours in a related discipline from a regionally accredited institution in order to be admitted to the bachelor's program. Students entering with an A.A. degree will be required to substitute selected technical lower division course requirements for the general education course requirements.

## I. ENROLLMENT, PERFORMANCE AND BUDGET PLAN

In October, 2010 Florida Gateway College's District Board of Trustees (DBOT) designated program enhancement funds in the amount of \$700,000 to support the implementation of three bachelor degree programs at FGC. Budget planning was a collaborative effort from all impacted areas of the college with final approval from the Vice President for Instruction and Student Services, the Vice President for Business Services, and the President. Since this time FGC has received a \$3.9 million Department of Labor grant to support the Bachelor of Applied Science in Nursing implementation for four years. This allows the college to use the \$700,000 in designated funds to two bachelor degree programs with fewer financial challenges.

	Projected Enrollment 2014-2015	Projected Enrollment 2015-2016	Projected Enrollment 2016-2017
Student Headcount	15	25	35
Degrees	0	10	15

# **Industrial Logistics Enrollment Projection Summary**

Above are enrollment projections and graduates of the BAS-IL in FGC region only.

Noteworthy in this application is the use of the AS in Supply Chain Management for this BAS-IL degree. The above projections do not include the potential enrollments of graduates around the state for this particular AS degree track as a feeder to the FGC program. Because the BAS-IL will be fully online, graduates from any college or state college with the AS in Supply Chain Management or an AA degree will be eligible to access this particular BAS degree and serve the industry needs around the state with regard to supply chain management and related industry sectors. Using resources at one institution can address statewide industry needs of logistics and supply chain using 100 % online course offerings.

	2014-2015	2015-2016	2016-2017
Recurring Costs	\$96,599	\$106,544	\$116,048
Non-recurring Costs	\$21,150	\$2,000	\$0
Total	\$117,749	\$108,544	\$116,048

## **Industrial Logistics Budget Summary**

Projected budget expenditures are estimated and noted in the chart above. These costs are minimal and can be sustained by the college. If enrollments did assume a broader statewide reach, FGC has the human and technical resources to meet the demand.

# J. PLAN OF ACTION IF PROGRAM MUST BE TERMINATED

If it is necessary to terminate the program, Florida Gateway College will make every effort to assist affected students, faculty and staff so that they experience a minimal amount of disruption. All students enrolled in the program will be contacted individually and advised of the steps needed to complete the program at Florida Gateway College or at another accredited partner institution if available. Every effort would be made to give students who have completed at least 50% of the program the opportunity to complete the program prior to its discontinuation. Students who have completed less than 50% of the program will be advised of other Industrial Logistics or similar programs throughout the state if available or a closely related degree that will support their career goals as much as possible. The college will do a three year teach out to allow appropriate time for currently enrolled students to complete the degree. The Registrar, Admissions, Advising, and all other offices will work together to make the transition as easy as possible for all students. Proper notification will also be sent to SACS-COC and all other stakeholders if the decision is made to close the program. New students will be unable to declare the program and seek the degree as it will be removed from the FGC admissions application as soon as the decision is made.

# **EVALUATION CRITERIA**

## A. PLANNING PROCESS

#### 1. Internal Process and Meetings

Florida Gateway College's (FGC) baccalaureate program planning began with a review of its mission, long term goals and strategic plan during the institutional effectiveness planning cycle beginning in fall, 2008. Considering the economic changes occurring locally and nationally, and the changing education requirements of industry within the state, the college needed to determine if its mission was still meeting the needs of the service area.

Several discussions were held with the Institutional Effectiveness Committee, College Management Council, faculty, staff and student groups. Topics of discussion included the impact of broadening the college's mission to include baccalaureate programs. Faculty, staff and students were asked to provide feedback on educational needs not currently being met in FGC's service area. Discussion groups were conducted from September 09-November 09 with internal and external committees and organizations to discuss changing the name of the college and possible baccalaureate degrees.

Review of statistical projections from Enterprise Florida (the state's economic development public/private partnership) identified logistics and manufacturing as two of five industries targeted to stimulate economic growth in North Florida.<sup>1</sup> On May 18, 2010, the District Board of Trustees authorized the college to begin the process of pursuing baccalaureate programs, including a Bachelor of Applied Science Degree in Industrial Logistics. The need for more individuals with bachelor's degrees in the transportation sector is indicated by a decline in the awarding of this degree type even though there is an increasing demand in the overall industry sector.<sup>2</sup>

In August 2010 the college partnered with Hanover Research Company as an external consultant to assist with predicting the supply of potential students, establishing the need for baccalaureate programs, projecting employment demands and identifying potential competitors. The development of the Bachelor of Applied Science (BAS) Degree in Industrial Logistics was built on the strength of FGC's Employ Florida Banner Center for Global Logistics, which was funded by Workforce Florida, Inc., was located at Florida Gateway College's Public Service Training Center from 2010-2012. The Employ Florida Banner Center's purpose was to engage industry, education, workforce, and economic development. FGC offers the Associate in Science (AS) Supply Chain Management and supporting college credit certificates to meet industry needs.

In October, 2010, the program development committee was formed to develop program content. Committee members include the Director of Research and Institutional Effectiveness, the Director of the Banner Center for Global Logistics, the Executive Director,

<sup>1</sup> Cambridge Systematics, Inc. in association with Fairfield Index, Inc., *North Central RACEC Target Industry Report*, prepared for Enterprise Florida, May 2007,

http://www.eflorida.com/uploadedFiles/Florida\_Knowledge\_Center/My\_eFlorida\_EFI\_and\_Partners/Strategic\_Plan/Rur al\_Strategic\_Marketing/North%20Central%20RACEC%20Target%20Industry%20Report%20May%202007.pdf

<sup>2</sup> Avalanche Consulting, McCallum Sweeney Consulting, and Council for Adult and Experiential Learning, *Innovate Northeast Florida Economic Development Strategic Plan: Targeting Jobs and Talent for the Future*, May 2012, http://innovatenortheastflorida.com/wp-content/uploads/2011/07/NEFL-Edu-Infrastructure-Assessment-5-2-12.pdf Public Service Training Center, Program Developer for Occupational Programs, Coordinator of Planning and Accreditation, and Research Specialist.

The committee originally decided to design the program to permit a seamless transition for students who have completed the Associate in Science (AS) in Engineering Process Technology – Advanced Manufacturing Track or the Associate in Science (AS) in Supply Chain Management to the BAS program. The program was designed to be distinct from the University of North Florida's Transportation & Logistics program and Florida State College at Jacksonville's AS Supply Chain Management program which emphasizes business management. In spring of 2013, newly hired faculty and experts in the discipline recommended a different track to the Vice President for Occupational Programs, which is a modified version of the originally planned program, which is still unique from other institutions in the state offering programs supporting this same CIP. The FGC BAS-Industrial Logistics program will produce students with strong logistics and supply chain knowledge with the technical skills needed to serve as leaders in a middle manager role, supervising small groups of employees. The bachelor's program will provide graduates of FGC's AS Supply Chain Management program a cost effective option to pursue higher education while remaining in their local community. Further, it will provide an avenue for graduates of other AS in Supply Chain Management programs as well as AA graduates around the state to garner knowledge and skills to work in Florida's growing import and export industries and other related industry sectors. The decision is an economic development strategy designed to upgrade the skills of the current workforce in FGC's district so companies locating to the region will hire Floridians and not relocate others for high paying jobs in the state.

Follow-up meetings were held on October 25, 2010, and November 19, 2010, to finalize program content. Additional meetings were held between the program areas on January 14, 2011, and January 31, 2011; these were reviewed and recommendations for revisions made at subcommittee meetings on January 19, 2011 and February 2, 2011. The final version was presented and approved at the subcommittee meeting on February 9, 2011. The curriculum was approved by the college's Educational Affairs Committee in February 2010. The Baccalaureate Proposal Approval Application was submitted to the District Board of Trustees for their review and approval on March 8, 2011.

At this point, the nation and state's economies were still recovering from recession and job demand in supply chain and logistics was low, directly impacting the development of the North Florida INTERMODAL PARK/inland port as well as delaying the dredging of JaxPort. FGC made a decision to table the degree approval process until the economy improved to support job demand. In the fall of 2012, the Vice President for Occupational Programs, Executive Director of Agricultural and Industrial Programs and the coordinator of Supply Chain Management began reviewing program curriculum based on consistent regional improvements in the economy and the renewed development of the Plum Creek initiative at the INTERMODAL PARK with the addition of the Rockefeller Consulting Group to market the site. The review of the degree plan identified that the use of only the AS degree in Supply Chain Management should be used for the BAS in Industrial Logistics, instead of the original plan to also include the AS in Engineering Process Technology. Faculty in both of these disciplines felt strongly that industry/workforce experience would be best met by the AS in Supply Chain Management.

In spring 2013, the committee, with the addition and assistance of qualified faculty, modified the application to better reflect curriculum to meet logistics and supply chain industry needs.

Because changes were made to the originally approved program, the curriculum was again presented to the BOT in November 2013, prior to submission in December 2013 to the SBOE for final approval. The substantive change application will be submitted to SACS in January, 2014, to seek final approval in the process for implementation in fall 2014.

Internal program development will continue until program implementation in fall, 2014.

# 2. External Process and Meetings

There are no state universities in the Florida Gateway College's (FGC's) service district, which includes Baker, Columbia, Dixie, Gilchrist, and Union counties. Saint Leo University, which is a private university located on FGC's campus, does not offer a degree in logistics.

Florida Gateway College is less than five miles from one of two RACEC catalyst sites designated by the State. A catalyst site is a designated location set by the Governor of the State of Florida for business and industry to develop with the assistance of various local and state agencies. The North Florida INTERMODAL PARK (supported by Plum Creek) is the catalyst site for Columbia County,. The North Florida Community College service region has the second Rural Areas of Critical Economic Concern (RACEC) catalyst site location, which is in Suwannee County. North Florida Community College (NFCC), serving FGC's neighboring region, including the counties of Hamilton, Jefferson, Lafayette, Madison, Suwannee and Taylor, supports the college's efforts to develop the BAS Industrial Logistics program. NFCC welcomes the new educational opportunities and economic growth possibilities the BAS in Industrial Logistics will bring to the communities of the region experiencing supply chain, and logistics as well as advanced manufacturing.

The Employ Florida Banner Center for Global Logistics, located at FGC's Public Service Training Center from 2007-2012, was a consortium of Florida Community Colleges and Universities that joined together to serve as a resource for logistics & distribution education, training, and professional development in the state of Florida. Their mission was to impact Florida's economy by collaboratively engaging industry, education, workforce, and economic development in a creative and innovative environment to address the current and future workforce needs of a targeted industry.

Florida Gateway College, the University of North Florida, and Polk State College were partners with the Employ Florida Banner Center for Global Logistics working closely with the consortium consisting of the following public and private colleges and universities:

- Florida State College at Jacksonville
- Saint Leo University
- Embry-Riddle Aeronautical University
- University of Florida—Supply Chain and Logistics Engineering
- Gulf Coast Community College
- Broward College
- Nova Southeastern University—H. Wayne Huizenga School of Business and Entrepreneurship.

The statewide Advisory Council for the Employ Florida Global Logistics Banner Center was comprised of Florida's top business leaders and experts in the fields of logistics, distribution, and global supply chain management, and met on a regular basis to cultivate curricula,

communications, and talent. The meetings provided a venue for need, demand, and impact discussions with area colleges and universities regarding the development of certification and degree programs to develop a highly skilled workforce for Florida-based logistics and supply chain companies. The AS degree in Supply Chain Management is uniform throughout the state and graduates of this degree track at any state college can take advantage of the 100% online BAS in Industrial Logistics offered by FGC, thus supporting middle managers needed across the state in supply chain and global logistics.

Statistical information and discussions with industry leaders, colleges and universities at the advisory council meetings indicated that competition in the manufacturing sector is becoming dependent on the management of global supply chains. Projections suggested that graduates with management capabilities and knowledge specific to the area of building component design and manufacturing, production and operations management, marketing, international trade, warehousing and distribution, and management information systems would become an increasingly critical resource.

The University of North Florida offers a program in Transportation & Logistics, which emphasizes business management in the upper level curriculum. Florida State College at Jacksonville and Broward State College offer the AS Degree in Supply Chain Management whose graduates can take advantage of the BAS-IL as well.

Florida Gateway College has reached out to the University of Florida, The Florida State University, and the University of North Florida for support of the Bachelor of Applied Science in Industrial Logistics. FGC received one letter of support from the University of Florida. No other institution responded or acknowledged our request or inquired for further information over a two year period. Emails and the University of Florida letter of support are included (Appendix C).

# **B. PROGRAM IMPLEMENTATION TIMELINE**

The program implementation timeline is outlined in the table below.

Summary Timeline for Bachelor of Applied Science in Industrial Logistics			
Assessment of Need and Demand	February 2009-February 2011		
DBOT Study Session Baccalaureate Degrees	February 2009		
Discussion Groups with Campus and Community	September 2009-November 2009		
Meeting with Deans and Program Developer	November 2009		
DBOT Study Session-5 Areas Chosen for Baccalaureate Degree	April 2010		
DBOT Approval to Pursue 5 Baccalaureate Degrees	May 2010		
Hanover Research on Industrial Logistics	August 2010-January 2011		
Florida Chamber Foundation	December 2010		
Curriculum Development	May 2010-September 2011		
Review of related AS programs on campus	May, 2010		
Review of comparable BS programs in-state and out-of-state	August, 2010-November, 2010		
Identification of specific student outcomes for graduates	October - November, 2010		
Identification of BS courses	November, 2010-February, 2011		
Upper division course description, syllabi and supporting materials	March 2011-September 2011		
Identification of specific student outcomes for graduates	January - March, 2013		
Identification of BAS courses	March, 2013-May, 2013		
Upper division course description, syllabi and supporting materials	May, 2013-August, 2013		
Accreditation Activities	November 2010-December 2011		
Letter of Intent to DOE	November 2010		
Draft of DOE Application	February 2011		
Make Adjustments to DOE Application ( <i>if needed</i> )	June 2011		
Draft of DOE Application	September 2013		
Make Adjustments to DOE Application ( <i>if needed</i> )	September 2013		
DOE Application Submitted	November 2013		
Submit Substantive Change Application to SACS	January 2014		
SACS Approval	May 2014		
Recruitment of Faculty and Staff	Completed August 2012 (for current needs)		
Faculty in place	January 2013		
Systems, Facilities and Resource Upgrades and Development	April 2011-July 2012		
Update SunGard Banner Information Management System	April 2011-March 2012		
Purchase of additional 12 computers	July 2012		
Student Recruitment and Advising	Begin upon approval by DOE and SACS		
Program Offered	August 2014		

## C. WORKFORCE DEMAND/UNMET NEED SPECIFIC TO PROGRAM AREA

## An addendum to this section has been prepared and is presented as Appendix B.

In today's increasingly information-based economy, high-paying jobs often follow workforce skills, making it crucial for the North Central RACEC region and Florida Gateway College to close the gap between its educational attainment rates and those at the state and national level. Adding a B.A.S. in Industrial Logistics will help attract high-paying logistics and technology businesses to the region. The B.A.S. in Industrial Logistics will provide education and training to incumbent workers as well as establish a career pipeline for future regional and state needs as the state and national economy rebound. This program will develop current high school graduates into a highly-skilled, highly trained workforce to be employed, thus attracting new companies and businesses to the region and state. Florida Gateway College is on the cutting edge of the logistics and industrial industries and believes this will help Florida fill a gap in an important and emerging workforce need. The addition of the 2,622 acre North Florida INTERMODAL PARK, supported by Plum Creek, will add jobs to the current demand of the region in the area BAS in Industrial Logistics. Having a highly skilled workforce will be needed to support business and industry recruitment efforts and support the State's economic development initiatives through the RACEC, which is one of two catalyst sites in the North Florida region.

Using the AS degree in Supply Chain Management as a feeder into the BAS in Industrial Logistics provides a high-skills foundation for this degree. Many of the students entering the AS degree track will have had the benefit of participating the Columbia High School Logistics Career Academy, a state-of-the-art academy emphasizing the warehousing component of supply chain, that provides a strong warehousing background for students at the entry high school level. Baker High School and other high schools in north Florida have also opened logistics related career academies. Implementing the BAS in Industrial Logistics provides a career pipeline from high school to upper division post-secondary to support business, industry and students at multiple levels.

#### 1. Geographic region to be served

The Florida Gateway College service area includes the counties of Baker, Columbia, Dixie, Gilchrest and Union. These counties, together with Bradford, Hamilton, Jefferson, Lafayette, Levy, Madison, Putnam, Suwannee, Taylor constitute the 14-county North Central RACEC region. One of the two designated RACEC catalyst sites is in Columbia County, couple of miles from the college's main campus. The other catalyst site is in Suwannee County, directly west of Columbia County. Coursework will be offered 100% online, allowing students who have an AA or AS in Supply Chain Management to earn the BAS-IL and work in their region of Florida, thus this degree can serve the entire state.

Analysis of current and projected employment figures necessitates the use of data by counties within the context of regional workforce boards. Workforce Regions 6 and 7 are completely within the RACEC. Regions 8 & 9 contain counties that are included in the RACEC, as well as metropolitan counties. The following is a list of included Workforce Regions and counties served:

- **Region 6** Hamilton, Jefferson, Lafayette, Madison, Suwannee, and Taylor Counties
- **Region 7** Columbia, Dixie, Gilchrist, and Union Counties
- Region 8 Baker, Clay, Duval, Nassau, Putnam, and Saint Johns Counties
- **Region 9** Alachua and Bradford Counties

Although the intent of the industrial logistics degree is to enhance the immediate region's skilled workforce in preparation for the target industries pursued by the RACEC and North Florida INTERMODAL PARK (Plum Creek), the proposed degree will also serve the state's import/export initiatives by providing access to an online BAS for middle managers needed across Florida.



#### 2. Number of current jobs

#### **Employment by Regional Workforce Board**

Occupation	on 2012 Employment by Work			rkforce Re	kforce Region	
Code	Title	Region 6	Region 7	Region 8	Region 9	Total
113051	Industrial Production Managers	29	11	287	26	353
113061	Purchasing Managers	-	-	152	-	152
113071	Transportation, Storage, and Distribution Managers	13	22	485	-	520
131023	Purchasing Agents	-	55	1028	231	1,314
131081	Logisticians	-	-	644	28	672
531021	First-Line Supv of Helpers, Laborers & Material-Movers, Hand	28	29	878	93	1,028
531031	First-Line Supv of Material-Moving Vehicle Operators	39	74	1,009	119	1,241
	Total					5,280

Source: Florida Department of Economic Opportunity, Labor Market Statistics Center, <u>http://www.floridajobs.org/labor-market-information/data-center/statistical-programs/employment-projections</u> (Retrieved November 4, 2013)

The above chart identifies potential jobs that would benefit from the BAS in Industrial Logistics degree within the FGC service and RACEC areas.

#### Florida Jobs by Occupation – Statewide Employment

Sample of Occupational Titles of Relevance to the B.A.S. in Industrial Logistics

Occupation Code	Title	Employment 2010
113051	Industrial Production Managers	3,330
113061	Purchasing Managers	1,992
113071	Transportation, Storage, and Distribution Managers	3,554
131023	Purchasing Agents (except farm)	3,828
131081	Logisticians	3,940
531021	First-Line Supv of Helpers, Laborers & Material-Movers, Hand	6,996
531031	First-Line Supv of Material-Moving Vehicle Operators	9,478

Source: Florida Department of Economic Opportunity, Labor Market Statistics Center, based on 8 year projections as of October 2012, http://www.floridajobs.org/labor-market-information/data-center/statistical-programs/employment-projections (October 26, 2013)

The above chart identifies potential jobs statewide that would benefit from the BAS in Industrial Logistics degree.

## 3. Number of current job openings

The estimated number of job openings for selected occupations related to industrial logistics in the greater FGC region (predominantly in Workforce Region 8) is **86**. According to the Occupational Profile found on the Employ Florida Marketplace website, nearly all of the occupations listed below are considered to have a "Bright Future".

Job Category	Regional Job Openings
Industrial Production Managers	21
Purchasing Managers	19
Transportation Managers	11
Storage and Distribution Managers	16
Logisticians	10
First-Line Supv of Helpers, Laborers & Material-Movers, hand	5
First-Line Supv of Material-Moving Vehicle Operators	4

#### **Current Demand for Industrial Logistics-Related Jobs**

Source: Employ Florida Marketplace, Occupational Profile

#### 4. Projected number of job openings five years from current year

The following tables present the average number of annual openings in selected industrial logistics related occupations at a regional and statewide level.

Sample of Occupational Titles of Relevance to the B.A.S. in Industrial Logistics					
Occupation	Title	Annual Percent	Average Annual Openings		
Code		Employment Change	Due To Growth	Due To Separation	Total
113071	Transportation, Storage, and Distribution Managers	0.03	0	12	12
131023	Purchasing Agents, Except Farm Products & Trade	0.63	6	27	33
131081	Logisticians	3.28	21	12	33
435071	Shipping, Receiving, and Traffic Clerks	0.56	18	81	99
531021	First-Line Superv of Helpers, Laborers & Material-Movers,	2.28	20	18	38
531031	First-Line Superv. of Material-Moving Vehicle Operators	1.08	11	20	31
	Total				246

**Regional Employment Projections** (includes Workforce Regions 6, 7, **8**, 9) Sample of Occupational Titles of Relevance to the B.A.S. in Industrial Logistic.

Source: Florida Department of Economic Opportunity, Labor Market Statistics Center, based on 8 year projections as of November 2012, <a href="http://www.floridajobs.org/labor-market-information/data-center/statistical-programs/employment-projections">http://www.floridajobs.org/labor-market-information/data-center/statistical-programs/employment-projections</a> (Retrieved November 4, 2013)

## Florida Jobs by Occupation – Statewide Employment Projections

		Annual	Average	e Annual Ope	nings
Occupation Code	Title	Percent Employment Change	Due To Growth	Due To Separation	Total
113051	Industrial Production Managers	1.16	39	76	115
113061	Purchasing Managers	1.22	24	59	83
113071	Transportation, Storage, and Distribution Managers	0.52	19	84	103
131081	Logisticians	3.34	132	74	206
131023	Purchasing Agents, except farm	0.84	116	365	481
531021	First-Line Supv of Helpers, Laborers & Material-Movers, Hand	1.99	139	139	278
531031	First-Line Supv of Material-Moving Vehicle Operators	1.18	111	189	300
	Total		• .•		1,566

Sample of Occupational Titles of Relevance to the B.A.S. in Industrial Logistics

Source: Florida Department of Economic Opportunity, Labor Market Statistics Center, based on 8 year projections as of October 2012, http://www.floridajobs.org/labor-market-information/data-center/statistical-programs/employment-projections (October 26, 2013)

5. Number of most recent graduates in the discipline area from the State University System, by institution(s) in the geographic region specified in the application

FGC researched this CIP as well as possible CIPs related to this degree track and found the CIPs focus on Business Management/Marketing and Support Services, while the proposed FGC program is designed to produce technical problem solvers with business and supply chain knowledge tailored for logistics, distribution and manufacturing industries.

CIP	52.0209	52.1801	52.0203	52.0205
FAMU	0	0	0	0
FAU	0	0	0	0
FGCU	0	0	0	0
FIU	0	0	9	0
FSU	0	0	0	0
NCF	0	0	0	0
UCF	0	0	0	0
UF	0	0	0	0
UNF	374	0	0	0
USF	0	0	0	0
UWF	0	0	0	0
Total	374	0	9	0

6. Number of most recent graduates in the discipline area from nonpublic postsecondary institutions in geographic region (if available), by institution

No bachelor's degrees have recently been awarded from nonpublic postsecondary institutions in FGC's geographic region.

7. Data and a one-paragraph description of the employment gap based on 2 through 6

Insufficient data are currently available to project the employment gap between employment need and available educational programs to meet these needs in the region due to the projected growth and development of the RACEC region, of which all five counties in FGC's service area are a part, supporting the development of business and industry. FGC is preparing to meet future demand from the development of the North Florida INTERMODAL PARK that is expected to bring hundreds of jobs to the region. Graduates are projected two years out at the earliest from the BAS in Industrial Logistics, with the potential for middle management positions available in the industry within that timeframe or sooner.

Workforce Florida, Inc. has targeted the logistics and distribution industry along with the manufacturing industry as two industries with the highest potential for growth in three underrepresented rural areas in Florida; Northwest RACEC, North Central RACEC, and South Central RACEC. Additionally, the domestic demand for logistics and distribution and related manufacturing services are projected to be augmented by Florida's growing international trade activities, including the expansion of the Panama Canal, the dredging of JaxPort, and the inland port designation of the RACEC Catalyst Site/North Florida INTERMODAL PARK. The BAS-IL has the ability to meet the north Florida regional and statewide needs with the 100% online format of course offerings.

8. Other measures as selected by institutions, which may include brief qualitative or quantitative data/information such as local economic development initiatives or evidence of rapid growth or decline not reflected in local, state, and national data.

The Comprehensive Industry Analysis—Logistics Industry—State of Florida, prepared by JT&T, LLC Consultants in partnership with the Employ Florida Global Logistics Banner Center and Florida State College at Jacksonville, released in January 2011, reports "From all of the educational levels, high school diplomas and bachelor's degrees are the most sought after when hiring new employees."<sup>3</sup>

In addition to the broad participation by college leadership in the regional committees and state initiatives, the college has strong support from industry in its service area. Letters of support have been received from BlueLinx, CDT Inc., Florida Crown Workforce Board, Inc., TIMCO Aviation Services, Hunter Panels, Dive Rite, Wal-Mart Logistics, Go-To-Market Columbia County Industrial Development Authority and the Baker County Chamber of Commerce. These companies, many with statewide, national and international reach, support the implementation of the bachelor's in Industrial Logistics.

The growth and expansion of the Jacksonville Port is a separate initiative impacting the Florida Gateway College/RACEC regions. In October 2010, the RACEC catalyst site near FGC was also designated as an *inland port*, or large-scale shipping hub which connects highways and/or rail lines to seaports. In a report prepared for Enterprise Florida, Cambridge Systematics, Inc. notes the following.

The domestic demand for logistics and distribution services will be augmented by Florida's growing international trade activities which increased in value from \$73 billion in 2003 to nearly \$110 billion in 2006 - a 50 percent gain in only three years.<sup>4</sup>

The dredging of JaxPort to accommodate larger cargo ships will increase the number of trucks carrying goods from Jacksonville through the RACEC region and into the southeastern United States. "Florida's workforce, education, and industry partners must develop an integrated strategy to expand workforce capacity to support the trade, logistics, and manufacturing industries. Cooperative action is needed to develop, attract, and retain qualified workers, building on best practices in Florida and nationally."<sup>5</sup>

The Florida Chamber Foundation study (excerpt included as Appendix D) reports that trade, logistics, and distribution industries employed 570,000 Floridians in 2008, with an average wage nearly 30 percent higher than the average for all industries in the state. Adding spinoff jobs in related industries to that figure, trade and logistics support about 1.7 million jobs in Florida, nearly 22 percent of employment in the state. If opportunities in trade, logistics, and distribution are pursued, these opportunities could support over 32,000 jobs annually.

#### Data Provided by Hanover Research

As part of the planning process in developing the Industrial Logistics program, Florida Gateway College contracted with the firm Hanover Research to perform a program demand study which would assess the local need for an industrial logistics baccalaureate program. Topics investigated include 1) predicting the supply of potential students, 2) establishing the need for a baccalaureate industrial logistics program, 3) projecting employment demand, and 4) analysis of potential competitors. Data provided by Hanover was taken into consideration in the development of the industrial logistics program, along with in-house findings detailed above. The Hanover report is provided as Appendix E.

<sup>4</sup> Cambridge Systematics, Inc. in association with Fairfield Index, Inc., *North Central RACEC Target Industry Report*, prepared for Enterprise Florida, May 2007,

http://www.eflorida.com/uploadedFiles/Florida Knowledge Center/My eFlorida EFI and Partners/Strategic Plan/Rur al\_Strategic\_Marketing/North%20Central%20RACEC%20Target%20Industry%20Report%20May%202007.pdf <sup>5</sup> Florida Chamber Foundation, Florida Trade and Logistics Study, December 2010,

http://floundation.org/FloridaTradeandLogisticsStudy.asp

# D. FACILITIES AND EQUIPMENT SPECIFIC TO PROGRAM AREA

1. Provide a brief description of the existing facilities and equipment that will be utilized for the program.

Florida Gateway College has sufficient facilities and equipment to support the Bachelor of Applied Science (BAS) in Industrial Logistics. Classrooms located at FGC's Public Service Training Center in Olustee, Florida, will be used if needed for this program. Because the program will be 100% online there is no need for additional facilities or equipment beyond the college's current availability.

2. Provide a brief description of the new facilities and equipment that will be needed for the program, if any.

The Bachelor of Applied Science in Industrial Logistics program will not require additional facilities or equipment.

# E. LIBRARY/MEDIA SPECIFIC TO PROGRAM AREA

1. Provide a brief description of the existing library/media resources that will be utilized for the program.

The library has access to 125 databases through the College Center for Library Automation, and 108 of them are full text. These databases include reference sources and thousands of journals. The collection includes 38,000 print volumes and 65,000 e-books. The library is staffed by two MLS professionals including the director, three library technicians, and a cadre of student workers. A new, 37,000 square foot library and media center was completed in April 2012.

The library has a rich database collection that encompasses the subject area of Industrial Logistics. These include *Applied Science and Technology Full Text, Science Complete, JSTOR, Business Full Text, EBSCO Business Source Complete, Gale General Business File, Access Business News, General Science Full Text, and Academic Search Complete.* Included in the library's online access are 871 full text journals, 278 e-books, and 346 peer reviewed journals in the subject area. There are 48 items in the print collection. The library staff consists of two MLS professionals, three paraprofessional library technicians, and a cadre of student workers.

2. Provide a brief description of the new library/media resources that will be needed for the program, if any.

The library has requested \$20,000 for the opening day collection, \$5,000 for the second year, and \$3,000 for each successive year to maintain currency and relevance for the BAS in Industrial Logistics. The decidedly small print collection will be bolstered with more than 200 titles (publication date newer than 2006) that have been identified by librarians. The library will add subject specific databases, including Compendex from Elsevier, and ABI Inform Trade and Industry. Print journals will be added to the collection as well as more subject-specific e-books.

# F. ACADEMIC RESOURCES SPECIFIC TO PROGRAM AREA

1. Number of existing full-time faculty

There is **one** existing full time faculty member.

2. Number of existing part-time faculty

There are **five** existing adjunct faculty members who will be utilized to offer coursework in support of the program.

3. *Provide a brief description of the anticipated additional faculty that will be needed for the program, if any.* 

The college hired one (1) full-time DBA credentialed faculty member to teach upper division industrial logistics courses, to be supplemented by additional part-time faculty beginning in year two of the program. These individuals will hold a minimum of a master's degree in logistics, materials management, industrial engineering, industrial management, or a closely related field, with a doctorate preferred. Each will also have a minimum of five years of work experience in a program-related setting. In compliance with SACS-COC, at least 25% of all upper division courses will be taught by faculty members holding discipline specific terminal degrees.

4. Anticipated instructional support personnel needed

Florida Gateway College acknowledges that the addition of a program will increase student enrollment. The anticipated increase in enrollment brought about by this new degree will be absorbed into the college's existing academic support structure. Executive Council (President and Vice Presidents) will monitor enrollment and add personnel to the appropriate areas of the college to support students as FTE increases. Once initial advising is provided, which can be conducted via Skype from any location, a student may register for classes via the Internet through our SunGard Banner system, thus minimizing the immediate need for additional staff in the Registrar's Office and Career Counseling Center.

The following is a comprehensive list of instructional support personnel Florida Gateway College will provide for the Bachelor of Applied Science in Industrial Logistics.

- ♦ Vice President
- Administrative Staff Assistant
- ♦ Executive Director
- Senior Staff Assistant
- Advisors in Career Counseling Center
- Librarians and supporting staff
- College Wide Learning Lab Coordinator and supporting staff
- Research and Institutional Effectiveness
- Registrar and support staff
- Admissions and support staff
- Technology and support staff.
- 5. As applicable, provide additional information related to academic resources.

No other information for this area.

# G. COST TO STUDENTS

Estimated 2012/2013:	Lower Division per Credit Hour	Upper Division per Credit Hour	
Tuition	\$ 78.94	\$ 91.79	
Fees	\$ 24.38	\$ 28.54	
Total	\$ 103.32	\$120.33	
4-Year Total Estimated Tuition & Fees:			
(69-73 lower division credit hrs x $103.32$ ) + (51 upper			
division credit hrs x \$12	division credit hrs x \$120.33) = <b>\$13,112.82</b>		

1. Anticipated cost for four years of study at Florida Gateway College

The above estimate is based upon Florida resident tuition and fees for credit programs (A&P, PSV, EPI and College Prep) effective fall term 2013. Estimates do not reflect potential rate increases for tuition and/or fees.

2. Estimated cost for four years of study at each state university in service district

There are no public universities in the FGC district. Typical costs for state universities in the greater region are listed below. NOTE\* FGC updated our tuition costs to the 13-14 fiscal year. The costs outlined below for the state universities were not updated to reflect the 12-13 increases, yet FGC is still significantly less in cost.

# **University of Florida**

2010/2011 Year:	Cost per Undergraduate Credit Hour	
Tuition	\$95.67	
Fees (incl. Tuition Differential)	\$72.48	
Total	\$168.15	
4-Year Total Estimated Tuition & Fees:		
120 credit hrs x \$168.15 = <b>\$20,178.00</b>		

## Florida State University

2010/2011 Year:	Cost per Undergraduate Credit Hour	
Tuition	\$95.67	
Fees (incl. Tuition Differential)	\$77.59	
Total	\$173.26	
4-Year Total Estimated Tuition & Fees:		
120 credit hrs x \$173.26 = <b>\$20,791.20</b>		

# **University of North Florida**

2010/2011 Year:	Cost per Undergraduate Credit Hour	
Tuition	\$95.67	
Fees (incl. Tuition Differential)	\$67.95	
Total	\$163.62	
4-Year Total Estimated Tuition & Fees:		
120 credit hrs x $163.62 = 19,634.40$		

3. Estimated cost for four years of study at each nonpublic institution in service district, if available

# St. Leo University

2010/2011 Year:	Cost per Undergraduate Credit Hour	
Tuition/Fees (incl.Tuition Differential) 60 hrs	\$245.00	
Fees (Assoc degree from FGC) 82 cred hrs	\$88.71	
4-Year Total Estimated Tuition & Fees:		
120 credit hrs x \$163.62 = <b>\$21,933.22</b>		

Note: St. Leo tuition & fees do not include \$115 fee assessed for each Distance Learning course taken.

# Jacksonville University

.

2010/2011 Year:	Cost per Undergraduate Credit Hour
Traditional Undergraduates	
Tuition/Fees	\$883.00
4-Year Total Estimated Tuition & Fee	S:
120 credit hrs x \$163.62 = <b>\$105,960.00</b>	

<b>2010/2011 Year:</b> Adult Degree (Accelerated Degree Program):	Cost per Undergraduate Credit Hour
Tuition/Fees	\$410.00
<b>4-Year Total Estimated Tuition &amp; Fees</b> : 120 credit hrs x \$163.62 = <b>\$49,200.00</b>	

# H. ACADEMIC CONTENT

- 1. List the admission requirements for the program.
  - a. Complete and submit application for admission to Florida Gateway College.
  - b. Complete residency affidavit, providing required supporting documentation.
  - c. Applicants must provide official transcripts from high school(s) (or GED). Applicants must also provide a copy of official college transcript(s) from all colleges attended. Applicants not currently enrolled in Florida Gateway College and/or who are transferring college credit courses are required to have a copy of their official transcript(s) sent directly from the college or university. **Note**: Transcripts from schools outside the U.S must be evaluated by a NACES approved agency.
  - d. Completion of any college preparatory coursework as required by legislative mandate.
  - e. Cumulative grade point average of 2.00 on a 4.00 scale in all postsecondary coursework.
  - f. Official transcript with one of the following:
    - Associate of Science (A.S.) degree of at least sixty (60) credit hours in a related discipline from a regionally accredited institution. Students will be required to complete additional general education courses.
    - Associate of Arts (A.A.) degree of at least sixty (60) credit hours from a regionally accredited institution. Students will be required to complete technical lower division courses.
  - g. Students must have completed two years of the same foreign language in high school or two semesters of the same college level foreign language to graduate.
- 2. Faculty credentials Estimated percentage of upper division courses in the program to be taught by faculty with a terminal degree

In accordance with the requirements set forth by <u>*The Principles of Accreditation 3.5.4,</u>* Southern Association of Colleges and Schools (SACS), at least 25% of all upper division courses will be taught by faculty members holding discipline specific terminal degrees.</u>

3. Anticipated average student/teacher ratio in first year based on enrollment projections as stated in the **Enrollment, Performance and Budget Plan** form

The anticipated average student/teacher ratio in the first year will be 15:1.

4. Summary of SACS accreditation plan, Florida Teacher Education Program Approval plan, and/or other specialized accreditation plan(s), as appropriate

FGC submitted an *Application for a Member Institution Seeking Accreditation at a More Advanced Degree Level* to The Southern Association of Colleges and Schools-Commission on Colleges (SACS-COC) requesting approval for Level II status. The site visit occurred February 24-26, 2013. Florida Gateway College received full Level II degree granting authority at the June 2013 SACS meeting. Following DOE approval, the college will document compliance on all relevant requirements.

# 5. Curriculum

a. Are there similar programs listed in the **Common Prerequisites Counseling Manual** (CPCM) for the CIP code (and track, if appropriate) you are proposing?

Yes, there are similar programs listed in the Common Prerequisites Counseling Manual for the proposed CIP code. 52.0203-Business-Logistics and Material Management

b. Include a copy of the latest page from the CPCM for the CIP/Track for this program, as applicable.

A copy of the 13-14 CPCM is included in this application as requested.

c. If specific courses are listed in the CPCM or as determined appropriate for new programs, list lower division common prerequisites required. If no prerequisites are required for the program, state "No prerequisites."

No prerequisites are required for this degree track.

d. List all courses required for the final two years of the baccalaureate program by term, in sequence. For some broad-based programs (e.g., BAS Supervision and Management), a sample curriculum may be appropriate. For degree programs with concentrations, there may be more than one sequence showing courses that are the same and/or different per concentration area. Include credit hours per term, and total credits for the program.

Selected courses for the BAS in Industrial Logistics are currently found within the Statewide Course Numbering System (SCNS). Students will be required to have an earned Associate of Science in Supply Chain Management (64 credits) or an earned Associate of Arts degree (60 credits). Individuals with an earned AA degree will take 9 hours of lower division electives in the AS-Supply Chain Management degree to prepare for bachelor's level curriculum. Students with an earned AS degree will take 9 hours of general education courses.

Required Prerequisite Courses	60/64 (Earned AA/AS Degree)
General Education Credits in lower division not counted for prerequisites requirements	9 (Earned AS only)
Lower Division Electives (if applicable)	9 (Earned AA only)
Total Lower Division	69/73
Total Upper Division	51
Total Credits for BAS-Industrial Logistics	120/124

# **BAS Industrial Logistics Credits**

# Industrial Logistics B.A.S. – Semester Layout

FIRST SEMESTER-JUNIOR YEAR		SECOND SEMESTER-JUNIOR YEAR	
AS Degree/Gen Ed Course*	3	AS Degree/Gen Ed Course*	3
AS Degree/Gen Ed Course*	3	Professional Elective	3
TRA 3321 Logistics Regulations &	3	COM 3462 Conflict Management &	3
Compliance		Problem Solving	
BUL 3334 Commercial &	3	FIN 3403 Business Finance for	3
Contracting Issues		Supply Chain Managers	
Semester Total	12	Semester Total	12
SUMMER SEMESTER-JUNIOR YEAR		SUMMER SEMESTER-SENIOR YEAR	
Professional Elective#	3	TRA 4945 Business Internship II	3
Professional Elective#	3	Professional Elective#	3
Semester Total	6	Semester Total	6
THIRD SEMESTER		FOURTH SEMESTER	
TRA 4214 Logistics Strategy	3	MAN 4400 Principles of Negotiation	3
TRA 4270 Global Operations	3	TRA 4271 International Logistics	3
Management		(import/export)	
GEB 4430 Business Ethics	3	MAN 4300 Contract Administration	3
GEB 4430 Business Ethics ACG 4361 Cost Accounting &		MAN 4300 Contract Administration	
	3		3
ACG 4361 Cost Accounting &		MAN 4300 Contract Administration	
ACG 4361 Cost Accounting & Pricing Strategies	3	MAN 4300 Contract Administration Professional Elective#	3
ACG 4361 Cost Accounting & Pricing Strategies	3	MAN 4300 Contract Administration Professional Elective# Semester Total	3 12

#### **#Professional Elective Course Choices:**

MAR 3023 Marketing MAN 4720 Business Strategy ETI 3630 Project Communication and Human Resource Management MAN 4045 Leadership and Team Development TRA 3132 Purchasing Management ISM 4070 Decision Science ETI 3781 Supervision GEB 3590 Cultural Environment of International Business Foreign Language

#### \*General Education Course Options for AS Supply Chain Management Graduates:

Any ECO course Any PSY course Any PHY course Any MAC, MGF course

#### \*AS Supply Chain Management Course Options for AA degree Graduates:

TRA 2154 Introduction to Supply Chain Management ACG 2021 Introduction to Financial Accounting TRA 2010 Transportation and Distribution TRA 2131 Purchasing and Inventory Management ECO 2023 Microeconomics

- e. List specific Associate in Science and/or Associate in Applied Science programs offered at your institution that are aligned with the program, as applicable.
  - Associate in Science Supply Chain Management
- f. Is the program being proposed as a Limited Access program?
  - No, this will not be a limited access program.

# I. ENROLLMENT, PERFORMANCE AND BUDGET PLAN

1. Complete Enrollment, Performance, and Budget Plan form.

Plan is included as Appendix A and submitted electronically as an Excel spreadsheet.

2. Provide a budget narrative justifying the estimated and projected program expenditures as they appear in Section III of the Enrollment, Performance, and Budget Plan form. Include start-up costs, required faculty, library resources, facility renovations/ remodeling, and other anticipated operational costs to develop and maintain the program over a four-year period. State funding for baccalaureate program approved pursuant to <u>Section 1007.33</u>, Florida Statutes, shall be as provided in the General Appropriations Act.

In October, 2010 Florida Gateway College's District Board of Trustees (DBOT) designated program enhancement funds in the amount of \$700,000 to support the implementation of bachelor degree programs at FGC. Budget planning was a collaborative effort from all impacted areas of the college with final approval from the Vice President for Instruction and Student Services, the Vice President for Business Services, and the President. Major areas impacted are below. Since this time FGC has received a \$3.9 million Department of Labor grant to support the Bachelor of Science in Nursing implementation for four years. This allows the college to use the \$700,000 in designated funds to implement additional bachelor degree programs with fewer financial challenges.

Enrollments for the BAS in Industrial Logistics regionally are projected to be 15 in year one, with increases each year. Degree completions are projected at 5 in year two, with increases each year as the program grows and expands (Appendix A). Because nearly identical AS degrees in Supply Chain are offered at many other Florida colleges and state colleges, graduates from these programs can easily complete the BAS-IL as it will be offered fully online. If the Florida Legislature does not fund the degree, FGC will use the noted program enhancement funds set aside by the DBOT to support this degree track through the first few years until it matures into a self-sufficient degree.

## **Faculty and Administrative Support**

FGC will utilize current faculty to the extent possible for the Bachelor of Applied Science in Industrial Logistics (BAS-IL). FGC added one full time faculty member during the 2012-2013 with appropriate SACS credentials to support the implementation of this bachelor's degree. As program enrollment increases the college will employ additional full time and adjunct faculty as needed. The college will place the BAS-IL under the immediate supervision of an executive director. The staff assistant associated with this administrative line will provide secretarial support to the faculty and students. The BAS-IL will be associated with the Occupational Programs area of the college and report to the existing Vice President for Occupational Programs.

# **Library Support**

Florida Gateway College is the home of a new state-of-the-art library and media center. This 37,000 square feet facility provides a wealth of support to all programs offered by the college. A computer area for research and study is designated, as well as a 30 station classroom for meetings as needed. The library also houses a large meeting space, café, and television studio.

To support the addition of this BAS the library has a rich database collection that encompasses the subject area of Industrial Logistics. These include *Applied Science and Technology Full Text, Science Complete, JSTOR, Business Full Text, EBSCO Business Source Complete, Gale General Business File, Access Business News, General Science Full Text, and Academic Search Complete.* Included in the library's online access are 871 full text journals, 278 e-books, and 346 peer reviewed journals in the subject area. There are 48 items in the print collection. The library staff consists of two MLS professionals, three paraprofessional library technicians, and a cadre of student workers.

The library has requested \$20,000 for the opening day collection, \$5,000 for the second year, and \$3,000 for each successive year to maintain currency and relevance. The decidedly small print collection will be bolstered with more than 200 titles (publication date newer than 2006) that have been identified by librarians. The library will add subject specific databases, including Compendex from Elsevier, and ABI Inform Trade and Industry. Print journals will be added to the collection as well as more subject-specific e-books.

## **Facility Needs**

The college will use existing facilities for the Bachelor of Applied Science in Industrial Logistics. No renovations will be necessary as the current facilities meet all program demands. The BAS-IL will be offered 100% online, reducing the need for bricks and mortar support.

## Academic and Financial Operating System Needs

Florida Gateway College maintains all financial and student data using the Sungard Banner software management system, which can be updated to support the BAS-IL using current personnel. FGC's management system has been updated to handle baccalaureate degrees with the implementation of the BSN in 2012. Additional staff in the Business and Student Services areas are added as determined by institutional enrollments and FTE.

3. The last paragraph of this section must include a statement on how the college will fund the program if it is not provided funding by the Legislature, and how that would impact the college's implementation plan. Explain how the college will fund the program if funds are not granted.

# **State Support**

Florida Gateway College is prepared to absorb the BAS-IL program operating costs using the \$700,000 program enhancement funds set aside by the DBOT to support Bachelor's degree implementation. Additionally, the college is aggressively seeking grant funds from multiple sources to support the program, though at the time of this request no awards have been received.
### J. PLAN OF ACTION IF PROGRAM MUST BE TERMINATED

If it is necessary to terminate the program, Florida Gateway College will make every effort to assist affected students, faculty and staff so that they experience a minimal amount of disruption. All students enrolled in the program will be contacted individually and advised of the steps needed to complete the program at Florida Gateway College or at another accredited partner institution if available. Every effort would be made to give students who have completed at least 50% of the program the opportunity to complete the program prior to its discontinuation. Students who have completed less than 50% of the program will be advised of other Industrial Logistics or similar programs throughout the state if available or a closely related degree that will support their career goals as much as possible. The college will do a three year teach out to allow appropriate time for currently enrolled students to complete the degree. The Registrar, Admissions, Advising, and all other offices will work together to make the transition as easy as possible for all students. Proper notification will also be sent to SACS-COC and all other stakeholders if the decision is made to close the program. New students will be unable to declare the program and seek the degree as it will be removed from the FGC admissions application as soon as the decision is made.

### K. SUPPLEMENTAL MATERIALS

Supplemental materials supporting this proposal application follow as the below listed appendices: (I moved these around per recommendation in document for A and E to be switched)

Appendix A: Enrollment, Performance and Budget Plan

Appendix B: Industrial Logistics at Florida Gateway College – Addendum to Section C

Appendix C : Letters of Support

- Plum Creek
- Dive Rite
- Hunter Panels
- ♦ TIMCO
- ♦ BlueLinx
- ♦ CDT Inc.
- ♦ Florida Crown Workforce Board, Inc. Region 7
- ♦ Walmart Logistics
- National Science Foundation
- ♦ Columbia County Industrial Development Authority
- Baker County Chamber of Commerce
- ♦ North Florida Community College
- Communications with State Universities

Appendix D: Extract from Florida Chamber Foundation Report

Appendix E: Hanover Research Report – Bachelor of Applied Science Industrial Logistics Program Demand

# Appendix A

Enrollment, Performance and Budget Plan

#### FLORIDA COLLEGE SYSTEM ENROLLMENT, PERFORMANCE AND BUDGET PLAN (NEW BACCALAUREATE PROPOSALS ONLY)

COLLEGE NAME:	COLLEGE NAME: FLORIDA GATEWAY COLLEGE		CONTACT NAME: Dr. Tracy Hickman			
DEGREE NAME:	BAS-Industrial Logistics					
		PROJECTED	PROJECTED	PROJECTED	PROJECTED	
	STUDENT ENROLLMENT	2013-14	2014-15	2015-16	2016-17	
A. Stu	ident Headcount	0	15	25	35	
D Lin	nor Division Student Credit Hours Concreted (Resident)		220	500	705	
	per Division Student Credit Hours Generated (Resident) per Division Student Credit Hours Generated (Nonresident)	0	330	560 0	765	
	per Division Total Student Credit Hours Generated (Resident)	0	330	560	765	
					100	
C. Up	per Division Student FTE (30 Credit Hours) - (Resident)	0.0	11.0	18.7	25.5	
	per Division Student FTE (30 Credit Hours) - (Nonresident)	0.0	0.0	0.0	0.0	
Up	per Division Student FTE (30 Credit Hours) - (Resident and Nonresident)	0.0	11.0	18.7	25.5	
		0040.44	0044.45	0045.40	0040.47	
	PERFORMANCE umber of Degrees Awarded	<b>2013-14</b>	<b>2014-15</b> 0	<b>2015-16</b> 10	2016-17 15	
	umber of Placements	0	0	10	15	
	ojected Annual Starting Salary	\$0	\$0	\$37,500	\$40,000	
					<b>*</b> · • <b>,</b> • • •	
	PROGRAM EXPENDITURES	2013-14	2014-15	2015-16	2016-17	
	ICTIONAL					
	Faculty Full-Time FTE	0.0	1.0	1.0	1.0	
2.	Faculty Part-Time FTE	0.0	0.0	0.5	1.0	
4	Faculty Full-Time Salaries/Benefits		64,849	66,794	60 700	
	Faculty Pull-Time Salaries/Benefits	0	<u>64,849</u> 0	7,500	68,798 12,000	
	Faculty Support: Lab Assistants, etc	0	0	7,500	12,000	
0.		0	0	Ű	0	
OPERA	TING EXPENSES					
1.	Academic Administration	0	15,000	16,500	18,000	
2.	Materials/Supplies	0	2,500	500	500	
	Travel	0	2,500	2,500	3,000	
	Communication/Technology	0	2,200	250	250	
	Library Support	0	3,500 5,000	4,000	4,500 6,000	
	Student Services Support Professional Services	0	5,000	5,500 0	6,000 0	
	Accreditation	0	0	0	0	
	Support Services	0	0	0	0	
CAPITAL	. OUTLAY					
	Library Resources	0	20,000	5,000	3,000	
	Information Technology Equipment	0	2,200	0	0	
	Other Equipment Facilities/Renovation	0	0	0	0	
		\$0	\$117,749	\$108,544	\$116,048	
		+-	÷,. +0	÷,. 14	÷,.+0	
IV. NATURE O	FEXPENDITURES					
	Recurring	0	96,599	106,544	116,048	
	Nonrecurring	0	21,150	2,000	0	
TOTAL		\$0	\$117,749	\$108,544	\$116,048	
V. SOURCES						
A. REVI						
	Special State Nonrecurring	0	0	0	0	
	Upper Level - Resident Student Tuition Only		39,709	67,385	92,052	
	Upper Level - Nonresident Student Fees Only	0	0	0	0	
	Upper Level - Other Student Fees	0	0	0	0	
	Contributions or Matching Grants	0	0	0	0	
	Other Grants or Revenues	0	0	0	0	
	Florida College System Program Funds (formerly Community College Program Fund) Unrestricted Fund Balance	0	78,040	0 41,159	23,996	
	Interest Earnings	0	78,040	41,139	23,990	
	Auxiliary Services	0	0	0	0	
	Federal Funds - Other	0	0	0	0	
	RY FORWARD	0	0	0	0	
	DS AVAILABLE	\$0	\$117,749	\$108,544	\$116,048	
TOTAL UNE	XPENDED FUNDS (CARRY FORWARD)	\$0	\$0	\$0	\$0	

#### NOTE: THIS FORM IS EFFECTIVE UNTIL JUNE 30, 2014 (FOR FISCAL YEAR JULY 1, 2013 TO JUNE 30, 2014)

DO NOT DELETE #DIV/0! 120.33

2013-14 TUITION RATE ESTABLISHED IN THE GENERAL Florida Gateway College BAS in Industrial LogISTICS

120.33

120.33

## Appendix B

Industrial Logistics at Florida Gateway College Addendum to Section C – Workforce Demand/Unmet Need In December 2010, the Florida Chamber Foundation released the *Florida Trade and Logistics Study*. The study describes a clear vision and framework for moving Florida forward in achieving three (3) simple goals: to achieve prosperity and high-paying jobs, to support vibrant communities, and to advance global competitiveness. The framework to accomplish this vision is known as the "Six Pillars". The Six Pillars identify the critical factors determining Florida's future and serves as an organizing force for strategic planning at the local, regional, and state levels:

Talent Supply and Education Innovation and Economic Development Infrastructure and Growth Leadership Business Climate and Competitiveness Civic and Governance Systems Quality of Life and Quality Places

The study reports that trade, logistics, and distribution industries employed 570,000 Floridians in 2008, with an average wage nearly 30 percent higher than the average for all industries in the state. Adding spinoff jobs in related industries to that figure, trade and logistics support about 1.7 million jobs in Florida, nearly 22 percent of employment in the state. If opportunities in trade, logistics, and distribution are pursued, these opportunities could support over 32,000 jobs annually.

One of the three opportunities for Florida cited in the report is the expansion of export markets for Florida businesses by filling import containers (most of which leave the state empty) with Florida goods and by using more efficient logistics patterns to attract advanced manufacturing and other export related industries to the state. The report also states, "Florida's workforce, education, and industry partners must develop an integrated strategy to expand workforce capacity to support the trade, logistics, and manufacturing industries." Occupations requiring a college education, such as freight managers and logisticians, are underrepresented in Florida's workforce. As Florida pursues the goal of doubling exports, workforce needs will encompass manufacturing, technology, and other export-oriented industries, making skills and preparedness by Florida's workforce critical to the success of both logistics and manufacturing. Businesses have stated that high value jobs in this cluster are directly related to the ability of the workforce to assimilate advanced technologies and business practices. One of the key strategies listed for the Talent Supply and Education Pillar is to expand targeted programs for global trade, logistics, and manufacturing in the state's four-year colleges and universities.

Florida Gateway College serves the North Central RACEC region. According to the <u>North Central RACEC</u> <u>Target Industry Report</u>, Bachelor's degree attainment rates in the region were less than one-half that of the U.S. and Florida. In today's increasingly information-based economy, high-paying jobs often follow workforce skills, making it crucial for the North Central RACEC region to close the gap between its educational attainment rates and those at the state and national level.

## Appendix C

### Letters of Support

Plum Creek Dive Rite Hunter Panels TIMCO BlueLinx CDT Inc. Florida Crown Workforce Board, Inc. Region 7 Walmart Logistics Columbia County Industrial Development Authority Baker County Chamber of Commerce North Florida Community College National Science Foundation Communications with State Universities Plum Creek Timber Company, Inc. P.O. Box 357700 Gainesville, FL 32635-7700 Telephone: 352-333-3733 Fax: 352-333-3977



April 4, 2013

Dr. Charles Hall President Florida Gateway College 149 SE College Place Lake City, Florida 32025

Dear Dr. Hall,

Plum Creek supports Florida Gateway College's intent to offer a Bachelor of Science (B.S.) degree in Logistics with an emphasis in industrial distribution. This program would complement our mixed-use industrial park known as the North Florida INTERMODAL PARK (NFIP).

The NFIP is an approved 2,622-acre project that allows for up to 8 million square feet of industrial land uses, 100,000 square feet of commercial land uses and 300 dwelling units. The NFIP will create significant job and economic opportunities within the region. The NFIP has a 500-acre Catalyst Site which is part of the North Central Florida Rural Area of Critical Economic Concern, and also has a designation of Rural Enterprise Zone. With our partners at Rockefeller Group, we are currently pursuing designation of the NFIP as the Magnet Site in Columbia County for Foreign Trade Zone #64 from the Port of Jacksonville. If Florida Gateway College offered a B.S. degree in logistics, it will help to create the skilled workforce necessary to support the NFIP.

We are pleased that Florida Gateway College is pursuing this program. We strongly support their efforts and look forward to its approval and implementation.

Sincerely,

Jow in Prwell

Todd W. Powell Sr. Director, Real Estate



10/29/10

To Whom It May Concern:

I am writing in support of Florida Gateway College's intention of offering a BS degree in Logistics with an emphasis in industrial distribution.

Dive Rite manufactures and assembles discrete equipment for sport and commercial divers. As a small company, we require employees capable of doing a broad array of tasks in the manufacturing and maintenance field. In addition, we transport finished products throughout the world, with a large amount of our product going internationally. As the economy begins to improve, we anticipate a need for workers with skills in both logistics and engineering process technology, to support growth in our business. Of special interest is the concept of combining these two fields in a bachelor's program, to provide future mid- and upper-level managers with a broad knowledge base of both technical and logistical operations.

In addition to the impact such a program would have on Dive Rite, the program would have a broad impact on the economic development of the community as a whole. With the designation of Columbia County as a Catalyst Site, and the imminent development of an Inland Port, companies planning to locate in the community will have a need for workers with these combined skill sets.

We are pleased that Florida Gateway College is planning to offer an integrated program. It is uniquely suited to develop this program, as it already offers associate degrees in both of these areas. We strongly support their efforts, and look forward to its approval and future implementation.

Regards,

é Ann Hires



388 Southeast Enterprise Ct. ~ Lake City, Florida 32025 Ph. 386.755.7777 Fax: 386.755.7882

November 1, 2010

To Whom It May Concern:

I am writing in support of Florida Gateway College's intention of offering a BS degree in Logistics with an emphasis in industrial distribution.

Hunter Panels manufactures a wide array of roofing panel products, requiring employees to be capable of doing a wide variety of maintenance repair tasks. In addition, we warehouse and transport finished products throughout the region. As the economy begins to improve, we anticipate a need for workers with skills in both logistics and engineering process technology, to support growth in our business. Of special interest is the concept of combining these two fields in a bachelor's program, to provide future mid- and upper-level managers with a broad knowledge base of both technical and logistical operations.

In addition to the impact such a program would have on Hunter Panels, the program would have a broad impact on the economic development of the community as a whole. With the designation of Columbia County as a Catalyst Site, and the imminent development of an Inland Port, companies planning to locate in the community will have a need for workers with these combined skill sets.

We are pleased that Florida Gateway College is planning to offer an integrated program. It is uniquely suited to develop this program, as it already offers associate degrees in both of these areas. We strongly support their efforts, and look forward to its approval and future implementation.

Greg Kieilla Plant Manager

Mark Snook Vice President / General Manager Lake City, FL MRO Operations Mark.Snook@TIMCO.Aero



November 1, 2010

To Whom It May Concern:

I am writing in support of Florida Gateway College's intention of offering a BS degree in Logistics with an emphasis in industrial distribution.

TIMCO Aviation Services provides maintenance services for both military and commercial aircraft. This requires employees capable of doing a wide variety of skilled electromechanical repair tasks. We also work closely with the Lake City Airport Authority, which oversees the adjoining airport where these planes arrive for service. As the economy begins to improve, we anticipate a need for workers with skills in both logistics and engineering process technology, to support growth not only in our business, but at the airport and its distribution services.

In addition to the impact such a program would have on TIMCO, the program would have a broad impact on the economic development of the community as a whole. With the designation of Columbia County as a Catalyst Site and the imminent development of an Inland Port, companies planning to locate in the community will have a need for workers with these combined skills.

We are pleased that Florida Gateway College is planning to offer an integrated program. It is uniquely suited to develop this program, as it already offers associate degrees in both of these areas. We strongly support their efforts, and look forward to its approval and future implementation.

Best Regards, morth Smooth

Mark Snook

BlueLinx Corporation PO Box 1329 Lake City, FL 32056-1329



November 5, 2010

Dr. Charles Hall President Florida Gateway College 149 SE College Place Lake City, Florida 32025

Dear Dr. Hall,

I am writing in support of Florida Gateway College's intention of offering a Bachelor of Science degree in Logistics with an emphasis in industrial distribution.

BlueLinx is primarily a distribution company, requiring employees capable of doing transportation logistics, warehousing using computerized systems, and some light remanufacturing. As the economy begins to improve, we anticipate a need for workers with skills in both logistics and engineering process technology, to support growth in our business. Of special interest is the concept of combining these two fields in a bachelor's program, to provide future mid- and upper-level managers with a broad knowledge base in technical operations.

A program that develops our future workforce would enable the community to attract new businesses that would promote growth for BlueLinx and the program would have a broader impact on the economic development of the community as a whole. With the designation of Columbia County as a Catalyst Site, and the imminent development of an Inland Port, companies planning to locate in the community will have a need for workers with these combined skill sets.

We are pleased that Florida Gateway College is planning to offer an integrated program. It is uniquely suited to develop this program, as it already offers associate degrees in both of these areas. We strongly support their efforts, and look forward to its approval and future implementation.

Sincerely,

Michael Sellers General Mgr BlueLinx



"The Tradition Continues"

November 8, 2010

Dr. Charles Hall President Florida Gateway College 149 SE College Place Lake City, FL 32025

Dear Dr. Hall,

I am writing in support of Florida Gateway College's intention of offering a Bachelor of Science degree in Logistics with an emphasis in industrial distribution.

CDT Inc is primarily a transportation company, requiring employees capable of doing transportation logistics, marketing and business strategies. In addition, we transport raw materials and finished products throughout Florida. As the economy begins to improve, we anticipate a need for workers with skills in both logistics and engineering process technology, to support growth in our business. Of special interest is the concept of combining these two fields in a bachelor's program, to provide future mid and upper level managers with a broad knowledge base in technical operations.

A program that develops our future workforce would enable the community to attract new business that would promote growth for CDT, Inc. and the program would have a broader impact on the economic development of the community as a whole. With the designation of Columbia County as a Catalyst Site and the imminent development of an Inland Port, companies planning to locate in the community will have a need for workers with these combined skill sets.

We are pleased that Florida Gateway College is planning to offer an integrated program. It is uniquely suited to develop this program, as it already offers associates degrees in both of these areas. We strongly support their efforts, and look forward to its approval and future implementation.

Sincerely,

MIT Judes

Clint T Dicks President / Owner CDT usa Inc

4458 S. US Hwy. 441 • Lake City, FL 32025 • (386) 752-1093 Florida Gateway College BAS in Industrial Logistics

45



### Florida Crown Workforce Board, Inc. Region 7

1389 US Hwy. 90 West, Suite 170B Lake City, FL 32055 (386) 755-9026 telephone \* (386) 752-6461 fax

> Serving the Counties of Columbia, Dixie, Gilchrist & Union

Member of



November 2, 2010

To Whom It May Concern,

I am writing this letter in support of Gateway College's plan to offer a Bachelor of Science degree in Logistics with an emphasis in industrial distribution.

Florida Crown is responsible for preparing the region's workforce to meet both the current and future needs of local employers and businesses. The long range vision and plans for this area call for workers with skills in both logistics and engineering process technology that will support the projected growth and expansion of business and industry in this region. The concept of combining these two fields in a bachelor's program is innovative, practical and will provide the broad knowledge base in technical operations necessary for our future growth and development.

A Bachelor's degree program will help develop our future workforce and enable the community to attract new businesses while simultaneously facilitating the growth and expansion of our existing businesses and industries. This initiative will strengthen the economic development efforts of the region as a whole by equipping our future workforce with the knowledge and skills necessary to compete effectively in the global marketplace.

We are pleased that Gateway College is planning to offer this integrated and innovative program that builds upon their experience gained over many years from their associate degree programs in these areas. We support their efforts, and recommend approval.

Sincerely,

John Chastain Executive Director

\*TTY via the Florida Relay Service 711. An equal opportunity employer/program. Auxiliary aids and services are available upon request to individuals with disabilities.

### **Bringing People and Business Together**

2686 Commerce Road Macclenny, FL 32063 Phone: 904-653-4002 Fax: 904-653-4020

November 2, 2010

Dr. Charles Hall President Florida Gateway College 149 SE College Place Lake City, Florida 32025

Logistics

Dear Dr. Hall,

I am writing in support of Florida Gateway College's intention of offering a Bachelor of Science degree in Logistics with an emphasis in industrial distribution.

Walmart is primarily a Supply Chain company, requiring employees capable of doing transportation logistics, marketing and business strategies and retail. In addition, we ship product to our stores and club's that is finished products throughout the Southeast. As the economy begins to improve, we anticipate a need for workers with skills in both logistics and engineering process technology, to support growth in our business. Of special interest is the concept of combining these two fields in a bachelor's program, to provide future mid-and upper-level managers with a broad knowledge base in technical operations.

A program that develops our future workforce would enable the community to attract new businesses that would promote growth for Walmart and the program would have a broader impact on the economic development of the community as a whole. With the designation of Columbia County as a Catalyst Site, and the imminent development of an Inland Port, companies planning to locate in the community will have a need for workers with these combined skill sets.

We are pleased that Florida Gateway College is planning to offer an integrated program. It is uniquely suited to develop this program, as it already offers associate degrees in both of these areas. We strongly support their efforts, and look forward to its approval and future implementation.

Sincerely,

8 aug

Bobby Steele General Manager Wal-Mart Stores, Inc.



Industrial Development Authority

November 2, 2010

Dr. Charles Hall President Florida Gateway College 149 SE College Place Lake City, Florida 32025

Dear <del>Dr.</del> Hall,

The Columbia County IDA supports Florida Gateway College's intent to offer a Bachelor of Science degree in Logistics with an emphasis in industrial distribution. That will compliment the efforts of our organization as we work with new businesses to locate in our area.

The Columbia County IDA serves as the economic development agency for Columbia County. Our role is to assist in developing job opportunities for the citizens of Columbia County and the region. Both Columbia County and the North Florida Economic Development Partnership have made Logistics and Distribution companies a targeted industry.

As the economy begins to improve, we anticipate a need for workers with skills in both logistics and engineering process technology, to support growth in our business. Of special interest is the concept of combining these two fields in a bachelor's program, to provide future mid- and upperlevel managers with a broad knowledge base in technical operations.

A program that develops our future workforce would enable the community to attract new businesses that would promote growth for our county and region. The program would have a broader impact on the economic development of the community as a whole. With the designation of Columbia County as a Catalyst Site, and the imminent development of an Inland Port, companies planning to locate in the community will have a need for workers with these combined skill sets.

We are pleased that Florida Gateway College is planning to offer an integrated program. It is uniquely suited to develop this program, as it already offers associate degrees in both of these areas. We strongly support their efforts, and look forward to its approval and future implementation.

Sincerely,

im Poole **Executive Director** 

164 NW Madison Street Suite 103 Lake City, FL 32055 386/758-1033 www.ccflida.com



November 5, 2010

Dr. Charles Hall President Florida Gateway College 149 SE College Place Lake City, Florida 32025

Dear Dr. Hall,

I am writing in support of Florida Gateway College's intention of offering a Bachelor of Science degree in Logistics with an emphasis in industrial distribution.

During this down time in our economy Baker County has taken many steps to prepare for the time when the economy is improving. One of the major things we have done is develop a plan for future job creation. Because of the assets we have: large tracts of available land, Interstate 10, CSX rail mainline and inclusion in the new Free Trade Zone being created by JaxPort, the county and several private developers believe that many of the future new businesses in Baker County will be heavily dependent on logistics and distribution. Baker County High School is working to create an academy for logistics, and providing these students the opportunity to continue into a bachelor's program combining logistics with engineering process technology is very exciting to me. Combining these two fields in a bachelor's program, to provide future mid- and upper-level managers with a broad knowledge base in technical operations will give our region a very qualified workforce.

A program, like this, that develops our future workforce will be a major factor in enable the community to attract new businesses that will promote growth for Baker County and the program will have a broader impact on the economic development of the community as a whole. Businesses will want to locate in the region because of the workforce with the combined skill sets offered by this program of study.

We are pleased that Florida Gateway College is planning to offer an integrated program. It is uniquely suited to develop this program, as it already offers associate degrees in both of these areas. We strongly support their efforts, and look forward to its approval and future implementation.

Sincerely,

Dany Regite

Darryl Register Executive Director



Office of Academic Affairs November 16, 2010

Charles E. Carroll Vice President Florida Gateway College 149 SE College Place Lake City, Florida 32025

Dear Vice President Carroll,

On behalf of the Office of Academic Affairs at North Florida Community College, I offer my support to Florida Gateway College in their effort to develop baccalaureate of science degrees in Nursing, Early Childhood, and Logistics. These proposed degrees would provide new educational opportunities for our joint communities and encourage growth for both Florida Gateway and North Florida Community College.

I look forward to working with you in the future with regard to articulation for these newly proposed degree programs.

Sincerely,

haron Ele

Dr. Sharon Erle Dean of Academic Affairs/CAO North Florida Community College 325 NW Turner Davis Dr. Madison, FL 32340 ErleS@nfcc.edu

325 NW Turner Davis Drive Madison, Florida 32340 Telephone: 850.973.1603 Fax: 850.973.9426 www.nfcc.edu LAKE CITY CENTER



149 SE College Place Lake City, FL 32025-8703 Office: (386) 752-6866 Fax: (386) 752-6776

December 11, 2013

Dr. Charles Hall President Florida Gateway College 149 SE College Place Lake City, FL 32025

Dear Dr. Hall,

Saint Leo University supports the efforts of Florida Gateway College to implement a Bachelor of Applied Science in Industrial Logistics. The degree will support the needs of industry and business in the region and state. Florida Gateway College has established itself as a leader in the state in the area of logistics and supply chain over the past five years. The BAS in Industrial Logistics will not compete with any programs offered by the Saint Leo University-Lake City campus and will enhance our partnership. We are willing to assist in any way feasible.

Respectfully, sie Jusk

Julie Turk Director Saint Leo University



National Science Foundation www.madeinflorida.org www.fl-ate.org

March 1, 2011

Dr. Charles Hall President, Florida Gateway College Highway 90 Lake City, Florida, 32025

Dear Dr. Hall,

As the Executive Director of the *Florida Advanced Technological Education Center (FLATE)*, I am pleased to commit to supporting your BS for Industrial Logistics. FLATE is a National Science Foundation (NSF) funded Regional Center since 2004. Our mission is to create a relevant statewide educational delivery system by supporting technical programs, curriculum development, best practices, student involvement, and outreach activities necessary to meet the workforce capacity and high performance skill needs of the manufacturing and supportive advanced technology sectors within the state. Our work includes developing and providing career pathways from high school through four year college degree programs.

The BS degree in Industrial Logistics will provide opportunities for students around the state holding an AS degree in Engineering Technology or Supply Chain Management. Engineering Technology associate of science degree program is now offered at 10 state/community colleges in Florida. It will offer additional academic coursework that will both cross-train students and provide them with advanced education focused on industrial plant management, an important emerging need in our global economy. The program will complement an existing Florida BS degree in Logistics or Supply Chain Management by focusing on the technical aspects of logistics, and should fill a current void in the state for technical workers who wish to advance, as well as operations people who want to gain additional technical knowledge. Please keep us informed with the status of your proposal to implement this new degree option.

Most sincerely,

aucyn Balger

Marilyn Barger, Ph.D., P.E.

Florida Gateway College

MAR 1 0 2011

President's Office

Hillsborough Community College • Brandon Campus • 10414 East Columbus Drive • Tampa, Florida • 33619

Marilyn Barger, Ph.D., P.E.Richard Gilbert, Ph.D.Bradley Jenkins, M.S.Executive DirectorPrincipal Investigator, USFPrincipal Investigator, SPCPrincipal Investigator, HCC(813) 974-2139(727) 341-4378(813) 259-6578Florida Gateway Golder BAS orgenent Street Street



**College of Engineering** Department of Industrial and Systems Engineering 303 Weil Hall PO Box 116595 Gainesville, FL 32611 352-392-1464 352-392-3537 Fax www.ise.ufl.edu

October 23, 2012

Tracy Hickman Vice President Occupational Programs Florida Gateway College 149 SE College Place Lake City, FL 32025

Dear Tracy,

I am writing this letter to express my support of Florida Gateway College in its pursuit of establishing a bachelor's degree program in Industrial Logistics. Florida Gateway College is situated close to a critical "crossroads" for logistics activities in the state of Florida. In particular, the intersection of Interstates 10 and 75 makes the region a crucial throughway for goods heading into and out of the state of Florida. In addition, the proximity to the Jacksonville port authority (Jaxport), combined with the region's relatively low cost and access to train and highway freight arteries, makes the region an important factor in logistics activities in the state of Florida. As a Rural Area of Critical Economic Concern (RACEC), increasing access to higher level training programs can serve to draw additional logistics firms and activities to the region and ultimately provide beneficial forms of economic growth and development. In the 14 years I have been on the faculty at the University of Florida I have seen substantial growth in warehousing activities in North-Central Florida. It appears that with increased international trade levels, the widening of the Panama Canal, and the deepening of ports in Florida, this trend will most certainly continue.

Fortunately, Florida Gateway College has established itself as a leader in developing logistics training programs over the past decade. Most notably, Florida Gateway College (formerly Lake City Community College) was home of the Employ Florida Banner Center for Logistics and Distribution through Workforce Florida, Inc. In this capacity, the leadership at Florida Gateway College routinely brought together logistics experts from throughout Florida in order to establish high school and community college programs to train future logistics workforce members. Thus, Florida Gateway College has established connections with logistics leaders in Florida and has developed higher education programs for training workers. Given their track record, establishing a

bachelor's degree program appears to be a natural next step in the evolution of their training programs and portfolio.

Based on the program description I received, I am not aware of a similar program in the region. That is, the focus on industrial and warehousing technologies and equipment use makes the program unique in my view. The institution's available industrial equipment and technology is well suited to such training programs. As a result, I do not see this program competing with existing programs, but rather complementing them. In addition, such a program would have the added benefit of preparing interested students from the region for additional higher education opportunities. Because of this, I fully support Florida Gateway College's pursuit of bachelor's level programs in industrial logistics. I think this would be great for the region and its citizens. Please feel free to contact me if any additional input is desired.

Sincerely,

Jorgh P Genn

Joseph Geunes, Ph.D. Professor and Associate Chair, Director, SCALE Laboratory

Hi Joe,

Thank you for responding. I letter from you would be good for our application. If I could get a letter in the next couple of weeks that would be great. We should talk about possible partnerships in the future sometime. I appreciate your willingness to do this.

Tracy

Tracy Hickman Vice President Occupational Programs Florida Gateway College 149 SE College Place Lake City, FL 32025 (386) 754-4324 (office) (386) 754-4824 (fax)



From: Geunes, Joseph [mailto:geunes@ise.ufl.edu]
Sent: Thursday, October 18, 2012 2:37 PM
To: Tracy Hickman
Subject: Re: Florida Gateway College BS Degree Request

Tracy,

I am traveling right now, which us why I've been slow to get back to you. I am happy to do something like this. You should know that our SCALE "center" has now become a "lab" because we have lost a few faculty members in the area. However, I am still active as the lab director and I am not really sure that this makes much of a difference for your purposes. What is my deadline for a letter?

Joe

Joseph Geunes University of Florida Department of Industrial and Systems Engineering

On Oct 17, 2012, at 7:51 AM, "Tracy Hickman" <<u>Tracy.Hickman@fgc.edu</u>> wrote:

Hello Dr. Geunes,

My name is Tracy Hickman, and I oversee all occupational programs at Florida Gateway College. This institution housed the BANNER Center for Global Logistics through the Workforce Florida, Inc. contract from 2007-2012. During this time the BANNER Center established curriculum frameworks for high schools and community colleges in supply chain and logistics for the Department of Education. The college also worked with multiple partners to establish career academies in high schools around the state. With the ending of the BANNER Center contract in June, Florida Gateway has begun to focus more on our own service region. The recent naming of the Northeast Florida Inland Port, a few miles from the college, and the ongoing Rural Area of Critical Economic Concern (RACEC) make the supply chain and process engineering disciplines increasingly important to the region.

I am contacting you to request a letter of support as FGC moves in the direction of adding a Bachelor of Science degree in Industrial Logistics. This AS to BS degree would serve those individuals seeking a middle manager position in business or industry related to logistics, supply chain, and process engineering. There will be a growing demand for this level of skilled worker in the coming years, which is different from other established and traditional degrees currently offered by the state university system. The BS in Industrial Logistics is a departure from anything currently offered in the state for several reasons:

- 1. The degree is for individuals in or seeking a supervisory role requiring a broad understanding of industrial processes and equipment use.
- The degree incorporates a strong hands on component, including warehousing, motors and controls, programmable logic controllers, and so on. Florida Gateway College has \$750,000 worth of equipment provided through a Department of Labor grant that will support this component of education within the BS in Industrial Logistics degree.
- 3. The degree is intended to provide incoming logistics, supply chain and process engineering industries with a pool of highly qualified middle managers as regional Chambers of Commerce and Industrial Development Boards seek to lure business and industry to create jobs in the northeastern part of Florida.
- 4. The degree will provide multiple internship opportunities for students to expand their knowledge and experience to increase individual competitiveness for jobs as business and industry locate to the Northeast Florida Inland Port and local area.

Florida Gateway College views this new degree as a way to provide our service and RACEC region with a talent supply through incumbent worker training that will fill a gap in an emerging workforce need. The BS in Industrial Logistics will not deter students from proceeding with the Associate of Arts degree and transferring to the University of Florida to pursue business, logistics, or engineering degrees as these are starkly different career paths from what FGC is proposing. This degree will address a different population and industry demand. Florida Gateway College sees this degree as a way to have individuals who live in our region acquire jobs with new companies instead of having individuals relocated to the state. Opportunities for higher salaries and a better life for existing residents is important to the growth of the state and region.

Florida Gateway College would greatly appreciate a letter of support from SCALE to include in our application to the State Board of Education. If you have any questions, please do not hesitate to contact me. I am more than happy to discuss this over the phone or meet in person.

Thank you in advance for your time and consideration.

Sincerely,

Tracy

Tracy Hickman Vice President Occupational Programs Florida Gateway College 149 SE College Place Lake City, FL 32025 (386) 754-4324 (office) (386) 754-4824 (fax)

<image003.jpg>

### Hello Dr. Dudley,

My name is Tracy Hickman, and I oversee all occupational programs, Associate of Science degrees and Bachelor of Science degrees at Florida Gateway College. This institution housed the BANNER Center for Global Logistics through the Workforce Florida, Inc. contract from 2007-2012. During this time the BANNER Center established curriculum frameworks for high schools and community colleges in supply chain and logistics for the Department of Education. The college also worked with multiple partners to establish career academies in high schools around the state. With the ending of the BANNER Center contract in June, Florida Gateway has begun to focus more on our own service region. The recent naming of the North Florida Intermodal Park, a few miles from the college, and the ongoing Rural Area of Critical Economic Concern (RACEC) make the supply chain and process engineering disciplines increasingly important to the region.

I am contacting you to request a letter of support as FGC moves in the direction of adding a Bachelor of Science degree in Industrial Logistics. This AS to BS degree would serve those individuals seeking a middle manager position in business or industry related to logistics, supply chain, and process engineering. There will be a growing demand for this level of skilled worker in the coming years, which is different from other established and traditional degrees currently offered by the state university system. The BS in Industrial Logistics is a departure from anything currently offered in the state for several reasons:

- 1. The degree is for individuals in or seeking a supervisory role requiring a broad understanding of industrial processes and equipment use.
- 2. The degree incorporates a strong hands on component, including warehousing, motors and controls, programmable logic controllers, and so on. Florida Gateway College has \$750,000 worth of equipment provided through a Department of Labor grant that will support this component of education within the AS to BS in Industrial Logistics degree.
- 3. The degree is intended to provide incoming logistics, supply chain and process engineering industries with a pool of highly qualified middle managers as regional Chambers of Commerce and Industrial Development Boards seek to lure business and industry to create jobs in the northeastern part of Florida.
- 4. The degree will provide multiple internship opportunities for students to expand their knowledge and experience to increase individual competitiveness for jobs as business and industry locate to the North Florida Intermodal Park and local area.

Florida Gateway College views this new degree as a way to provide our service and RACEC region with a talent supply through incumbent worker training that will fill a gap in an emerging workforce need. The BS in Industrial Logistics will not deter students from proceeding with the Associate of Arts degree and transferring to the University of Florida to pursue business, logistics, or engineering degrees as these are starkly different career paths from what FGC is proposing. This degree will address a different population and industry demand. Florida Gateway College sees this degree as a

way to have individuals who live in our region acquire jobs with new companies instead of having individuals relocated to the state. Opportunities for higher salaries and a better life for existing residents is important to the growth of the state and region.

Florida Gateway College would greatly appreciate a letter of support from The Florida State University's College of Business to include in our application to the State Board of Education as we pursue approval of this new degree. If you have any questions, please do not hesitate to contact me. I am more than happy to discuss this over the phone or meet in person.

Thank you in advance for your time and consideration.

Sincerely,

Tracy

Tracy Hickman Vice President Occupational Programs Florida Gateway College 149 SE College Place Lake City, FL 32025 (386) 754-4324 (office) (386) 754-4824 (fax)



### Hello Dr. Samant,

My name is Tracy Hickman, and I oversee all occupational programs, Associate of Science degrees and Bachelor of Science degrees at Florida Gateway College. This institution housed the BANNER Center for Global Logistics through the Workforce Florida, Inc. contract from 2007-2012. During this time the BANNER Center established curriculum frameworks for high schools and community colleges in supply chain and logistics for the Department of Education. The college also worked with multiple partners to establish career academies in high schools around the state. With the ending of the BANNER Center contract in June, Florida Gateway has begun to focus more on our own service region. The recent naming of the North Florida Intermodal Park, a few miles from the college, and the ongoing Rural Area of Critical Economic Concern (RACEC) make the supply chain and process engineering disciplines increasingly important to the region.

I am contacting you to request a letter of support as FGC moves in the direction of adding a Bachelor of Science degree in Industrial Logistics. This AS to BS degree would serve those individuals seeking a middle manager position in business or industry related to logistics, supply chain, and process engineering. There will be a growing demand for this level of skilled worker in the coming years, which is different from other established and traditional degrees currently offered by the state university system. The BS in Industrial Logistics is a departure from anything currently offered in the state for several reasons:

- 1. The degree is for individuals in or seeking a supervisory role requiring a broad understanding of industrial processes and equipment use.
- 2. The degree incorporates a strong hands on component, including warehousing, motors and controls, programmable logic controllers, and so on. Florida Gateway College has \$750,000 worth of equipment provided through a Department of Labor grant that will support this component of education within the AS to BS in Industrial Logistics degree.
- 3. The degree is intended to provide incoming logistics, supply chain and process engineering industries with a pool of highly qualified middle managers as regional Chambers of Commerce and Industrial Development Boards seek to lure business and industry to create jobs in the northeastern part of Florida.
- 4. The degree will provide multiple internship opportunities for students to expand their knowledge and experience to increase individual competitiveness for jobs as business and industry locate to the North Florida Intermodal Park and local area.

Florida Gateway College views this new degree as a way to provide our service and RACEC region with a talent supply through incumbent worker training that will fill a gap in an emerging workforce need. The BS in Industrial Logistics will not deter students from proceeding with the Associate of Arts degree and transferring to the University of North Florida to pursue business, logistics, or engineering degrees as these are starkly different career paths from what FGC is proposing. This degree will address a different population and industry demand. Florida Gateway College sees this

degree as a way to have individuals who live in our region acquire jobs with new companies instead of having individuals relocated to the state. Opportunities for higher salaries and a better life for existing residents is important to the growth of the state and region.

Florida Gateway College would greatly appreciate a letter of support from the University of North Florida's Coggin College of Business to include in our application to the State Board of Education as we pursue approval of this new degree. If you have any questions, please do not hesitate to contact me. I am more than happy to discuss this over the phone or meet in person.

Thank you in advance for your time and consideration.

Sincerely,

Tracy

Tracy Hickman Vice President Occupational Programs Florida Gateway College 149 SE College Place Lake City, FL 32025 (386) 754-4324 (office) (386) 754-4824 (fax)



Mr. Lance Wallace Engineering Technology Program Coordinator Advanced Technology Center Florida State College at Jacksonville 401 W. State Street Jacksonville, FL 32202

Dear Mr. Wallace:

Florida Gateway College is committed to fulfilling the educational needs for the state of Florida. The college is seeking permission from the state of Florida to offer an articulated AS to Bachelor of Science degree in Industrial Logistics. This program will be designed in coordination with local and regional supply chain management providers and their staff to prepare graduates for industrial distribution centers, not transportation. Students will have extensive, hands-on, education with PLC's and process controllers. It will strategically align with the AS degrees in Supply Chain Management and Engineering Process Technology in the state college system. It supports our efforts with workforce development preparation for the planned Inland Port for North Florida by extending and blending training and skills from these two AS degrees. There is not an identified degree track of this type in the university system, and we believe this will be groundbreaking and critical to support economic development in the North Florida region as well as ports around the state.

Florida Gateway College is committed to providing personnel and financial resources to ensure the quality and integrity of the program. The program will be stronger with a committed relationship from Florida State College at Jacksonville. On behalf of the college, I am asking for a letter of support from your school for our proposed AS to BS program.

If you have any questions, please do not hesitate to contact me. I may be reached at (386) 754-4477 or via email at <u>charles.carroll@fgc.edu</u>.

Thank you for your consideration.

Sincerely,

Dr. Ajay Samant Dean/ Professor Coggin College of Business Administration University of North Florida 1UNF Drive, Bldg. 42 Jacksonville, FL 32224-7699

Dear Dr. Samant:

Florida Gateway College is committed to fulfilling the educational needs for the state of Florida. The college is seeking permission from the state of Florida to offer an articulated AS to Bachelor of Science degree in Industrial Logistics. This program will be designed in coordination with local and regional supply chain management providers and their staff to prepare graduates for industrial distribution centers, not transportation. Students will have extensive, hands-on, education with PLC's and process controllers. It will strategically align with the AS degrees in Supply Chain Management and Engineering Process Technology in the state college system. It supports our efforts with workforce development preparation for the planned Inland Port for North Florida by extending and blending training and skills from these two AS degrees. There is not an identified degree track of this type in the university system, and we believe this will be groundbreaking and critical to support economic development in the North Florida region as well as ports around the state.

Florida Gateway College is committed to providing personnel and financial resources to ensure the quality and integrity of the program. The program will be stronger with a committed relationship from the University of North Florida. On behalf of the college, I am asking for a letter of support from your school for our proposed AS to BS program.

If you have any questions, please do not hesitate to contact me. I may be reached at (386) 754-4477 or via email at <u>charles.carroll@fgc.edu</u>.

Thank you for your consideration.

Sincerely,

Dr. Yemisi Bolumoie Associate Professor, Marketing & Logistics Coggin College of Business University of North Florida 1UNF Drive, Bldg. 42 Jacksonville, FL 32224-7699

Dear Dr. Bolumoie:

Florida Gateway College is committed to fulfilling the educational needs for the state of Florida. The college is seeking permission from the state of Florida to offer an articulated AS to Bachelor of Science degree in Industrial Logistics. This program will be designed in coordination with local and regional supply chain management providers and their staff to prepare graduates for industrial distribution centers, not transportation. Students will have extensive, hands-on, education with PLC's and process controllers. It will strategically align with the AS degrees in Supply Chain Management and Engineering Process Technology in the state college system. It supports our efforts with workforce development preparation for the planned Inland Port for North Florida by extending and blending training and skills from these two AS degrees. There is not an identified degree track of this type in the university system, and we believe this will be groundbreaking and critical to support economic development in the North Florida region as well as ports around the state.

Florida Gateway College is committed to providing personnel and financial resources to ensure the quality and integrity of the program. The program will be stronger with a committed relationship from the University of North Florida. On behalf of the college, I am asking for a letter of support from your school for our proposed AS to BS program.

If you have any questions, please do not hesitate to contact me. I may be reached at (386) 754-4477 or via email at <u>charles.carroll@fgc.edu</u>.

Thank you for your consideration.

Sincerely,

Dr. Cammy Abernathy, Dean College of Engineering University of Florida PO Box 116550 Gainesville, FL 32611-6550

Dear Dr. Abernathy:

Florida Gateway College is committed to fulfilling the educational needs for the state of Florida. The college is seeking permission from the state of Florida to offer an articulated AS to Bachelor of Science degree in Industrial Logistics. This program will be designed in coordination with local and regional supply chain management providers and their staff to prepare graduates for industrial distribution centers, not transportation. Students will have extensive, hands-on, education with PLC's and process controllers. It will strategically align with the AS degrees in Supply Chain Management and Engineering Process Technology in the state college system. It supports our efforts with workforce development preparation for the planned Inland Port for North Florida by extending and blending training and skills from these two AS degrees. There is not an identified degree track of this type in the university system, and we believe this will be groundbreaking and critical to support economic development in the North Florida region as well as ports around the state.

Florida Gateway College is committed to providing personnel and financial resources to ensure the quality and integrity of the program. The program will be stronger with a committed relationship from the University of Florida. On behalf of the college, I am asking for a letter of support from your school for our proposed AS to BS program.

If you have any questions, please do not hesitate to contact me. I may be reached at (386) 754-4477 or via email at <u>charles.carroll@fgc.edu</u>.

Thank you for your consideration.

Sincerely,

Mr. Ray Wikstrom Program Coordinator, Open Campus Industrial Management Technology Information Florida State College at Jacksonville 601 W. State Street Jacksonville, FL 32202

Dear Mr. Wikstrom:

Florida Gateway College is committed to fulfilling the educational needs for the state of Florida. The college is seeking permission from the state of Florida to offer an articulated AS to Bachelor of Science degree in Industrial Logistics. This program will be designed in coordination with local and regional supply chain management providers and their staff to prepare graduates for industrial distribution centers, not transportation. Students will have extensive, hands-on, education with PLC's and process controllers. It will strategically align with the AS degrees in Supply Chain Management and Engineering Process Technology in the state college system. It supports our efforts with workforce development preparation for the planned Inland Port for North Florida by extending and blending training and skills from these two AS degrees. There is not an identified degree track of this type in the university system, and we believe this will be groundbreaking and critical to support economic development in the North Florida region as well as ports around the state.

Florida Gateway College is committed to providing personnel and financial resources to ensure the quality and integrity of the program. The program will be stronger with a committed relationship from Florida State College at Jacksonville. On behalf of the college, I am asking for a letter of support from your school for our proposed AS to BS program.

If you have any questions, please do not hesitate to contact me. I may be reached at (386) 754-4477 or via email at <u>charles.carroll@fgc.edu</u>.

Thank you for your consideration.

Sincerely,

Dr. Joseph C. Hartman Chair, Industrial & Systems Engineering University of Florida PO Box 116595 Gainesville, FL 32611-6595

Dear Dr. Hartman:

Florida Gateway College is committed to fulfilling the educational needs for the state of Florida. The college is seeking permission from the state of Florida to offer an articulated AS to Bachelor of Science degree in Industrial Logistics. This program will be designed in coordination with local and regional supply chain management providers and their staff to prepare graduates for industrial distribution centers, not transportation. Students will have extensive, hands-on, education with PLC's and process controllers. It will strategically align with the AS degrees in Supply Chain Management and Engineering Process Technology in the state college system. It supports our efforts with workforce development preparation for the planned Inland Port for North Florida by extending and blending training and skills from these two AS degrees. There is not an identified degree track of this type in the university system, and we believe this will be groundbreaking and critical to support economic development in the North Florida region as well as ports around the state.

Florida Gateway College is committed to providing personnel and financial resources to ensure the quality and integrity of the program. The program will be stronger with a committed relationship from the University of Florida. On behalf of the college, I am asking for a letter of support from your school for our proposed AS to BS program.

If you have any questions, please do not hesitate to contact me. I may be reached at (386) 754-4477 or via email at <u>charles.carroll@fgc.edu</u>.

Thank you for your consideration.

Sincerely,

Dr. Murat Tiryakioglu Director, School of Mechanical Engineering College of Computing, Engineering & Construction Management University of North Florida 1UNF Drive Jacksonville, FL 32224

Dear Dr. Tiryakioglu:

Florida Gateway College is committed to fulfilling the educational needs for the state of Florida. The college is seeking permission from the state of Florida to offer an articulated AS to Bachelor of Science degree in Industrial Logistics. This program will be designed in coordination with local and regional supply chain management providers and their staff to prepare graduates for industrial distribution centers, not transportation. Students will have extensive, hands-on, education with PLC's and process controllers. It will strategically align with the AS degrees in Supply Chain Management and Engineering Process Technology in the state college system. It supports our efforts with workforce development preparation for the planned Inland Port for North Florida by extending and blending training and skills from these two AS degrees. There is not an identified degree track of this type in the university system, and we believe this will be groundbreaking and critical to support economic development in the North Florida region as well as ports around the state.

Florida Gateway College is committed to providing personnel and financial resources to ensure the quality and integrity of the program. The program will be stronger with a committed relationship from the University of North Florida. On behalf of the college, I am asking for a letter of support from your school for our proposed AS to BS program.

If you have any questions, please do not hesitate to contact me. I may be reached at (386) 754-4477 or via email at <u>charles.carroll@fgc.edu</u>.

Thank you for your consideration.

Sincerely,
# Appendix D

Florida Chamber Foundation Extract from Florida Trade and Logistics Study, December 2010

# **Talent Supply and Education**

Florida's trade and logistics industry must be able to draw upon a larger and more specialized workforce. The Agency for Workforce Innovation estimates 507,000 workers in Florida's logistics and distribution industry in 2010.<sup>29</sup> Assuming no major policy changes, these jobs are projected to grow 18 percent through 2018, ahead of the average for all occupations in the state. With freight flows expected to increase significantly over the next 50 years, the demand for workers in this cluster will continue to increase well beyond this decade – particularly as the opportunities identified in this study are pursued.

Occupations expected to add the most jobs include customer service and sales representatives; office, store, and accounting related clerks; truck drivers; and other freight movers (Table 5.1). Key shortage areas may include truck drivers; industrial truck and tractor operators; and freight, stock, and material movers. Most of these jobs require postsecondary education or training, most often in a vocational program. Occupations requiring a college education, such as freight managers and logisticians, also are underrepresented in Florida's workforce.

Occupation	2010	2018	Change
Customer Service Representatives	150,740	187,702	36,962
Office Clerks, General	146,163	169,998	23,835
Stock Clerks and Order Fillers	157,369	179,031	21,662
Bookkeeping, Accounting, and Auditing Clerks	112,638	129,379	16,741
Sales Representatives, Wholesale and Manufacturing, Nontechnical	80,117	95,467	15,350
Truck Drivers, Heavy and Tractor-Trailer	72,265	87,502	15,237
Laborers and Freight, Stock, and Material Movers, Hand	81,303	91,792	10,489

# Table 5.1Employment in Fast Growing Trade and Logistics<br/>Occupations in Florida

Source: Florida Agency for Workforce Innovation.

As Florida pursues the goal of doubling exports, workforce needs also will encompass manufacturing, technology, and other export oriented industries. Workforce skills and preparedness will be a key determinant of Florida's future success in both logistics and manufacturing. Businesses interviewed for this study said emerging issues related to high value jobs in this cluster include the ability of the workforce to assimilate advanced technologies and business practices, as well as the need for more workers with foreign language skills and international business acumen.

Florida's workforce, education, and industry partners must develop an integrated strategy to **expand workforce capacity to support the trade, logistics, and manufacturing industries.** Cooperative action is needed to develop, attract, and retain qualified workers, building on best practices in Florida and nationally.





Key strategies include:

- Identify global trade and logistics as a qualified targeted industry for the state's Quick Response Training and Incumbent Worker Training programs. Florida must ensure its offerings are comparable with other southeast states.
- Expand vocational, associate degree, and workforce training programs to support skill requirements for trade, logistics, and manufacturing industries. Specialized training in logistics needs for specific sectors such as life sciences also is important.
- Expand targeted programs for global trade, logistics, and manufacturing in the state's four year colleges and universities. The Employ Florida Banner Center for Global Logistics, led by Florida Gateway College, the University of North Florida, and Polk State College in cooperation with seven other colleges and universities, is an example of a collaborative approach to meeting future workforce needs.
- **Build international business and foreign language skills and experience** among the Florida workforce.

# **Innovation and Economic Development**

Florida's economy often is described as a three legged stool of agriculture; tourism; and real estate, construction, and other industries which serve the influx of new residents. Trade flows create the opportunity to add two more legs to the stool: a world class cluster of global trade and logistics, and an export oriented, advanced manufacturing cluster. Both of these opportunities would create high value jobs and new opportunities for Florida businesses. Strengthening these opportunities will require coordinated actions to:

- Market Florida's advantages as a trade gateway and hub. Florida should continue to promote its role as the gateway to Latin America and the Caribbean as well as its potential to serve east-west trade lanes, especially with Asia. Florida's current and potential cost advantages should be documented and marketed to cargo owners and carriers. Trade missions and marketing material should promote Florida as a business friendly location with an efficient supply chain infrastructure. The Governor can play a critical role in this effort as the state's chief economic development officer.
- Identify global trade and logistics as a statewide targeted industry. This designation would make global trade and logistics eligible for all state incentive programs and a key emphasis for Enterprise Florida, Workforce Florida, the Florida Department of Transportation, and other state agencies.
- Attract international distribution centers to reinforce Florida's location and cost advantages. Florida's existing distribution centers primarily serve regional consumption markets. Florida receives and ships a significant percent of its freight via out of state seaports, often consolidated in other states. To capture more of this traffic as well as imports destined for other states, Florida must aggressively recruit international distribution centers to locate in the state.

Florida's 'three legged stool" of agriculture, tourism, and construction can add two more legs: global trade and logistics, and export oriented, advanced manufacturing.

# Appendix E

Hanover Research Report Industrial Logistics Program Demand



1101 Connecticut Ave. NW, Suite 300, Washington, DC 20036 P 202.756.2971 F 866.808.6585 www.hanoverresearch.com

# **Industrial Logistics Program Demand**

Prepared for Florida Gateway College

In this report, Hanover Research conducts a program demand study for Florida Gateway College's proposed baccalaureate Industrial Logistics program. We begin with an analysis of the supply of potential students, examining the need for a new baccalaureate program. We then determine projected employment demand based on national, regional, and local outlooks for occupations related to Industrial Logistics.

#### Introduction

In the search for effective and efficient logistical performance, business professionals face a number of challenges, including globalization, supplier and customer relationship management, and incorporating logistics into supply and value chains. Despite the proliferation of software and technology created to address these challenges, the field of logistics is still largely human-centric. Therefore, the supply of qualified individuals in this area is a major concern.

Logistics and supply chain management are generally considered two separate fields. According to the Council of Supply Chain Management Professionals, logistics management is the part of supply chain management "that plans, implements, and controls the efficient, effective forward and reverses flow and storage of goods, services and related information between the point of origin and the point of consumption in order to meet customers' requirements."<sup>1</sup> Supply chain management is a broader concept, encompassing "the planning and management of all activities involved in sourcing and procurement, conversion and all logistics management activities."<sup>2</sup> Despite this distinction, many universities provide logistics instruction under the title of Supply Chain Management and many professionals consider the two to be one and the same.<sup>3</sup>

Beginning in the late 1990s, industry interest in logistics and supply chain management, combined with an expanding U.S. economy, led companies to search campuses for new hires. In response to this demand, a number of universities developed new logistics and supply chain management programs in the 1990s and early 2000s (including the University of Oklahoma, the University of Wisconsin, Syracuse University, and the University of North Texas). Further, many existing marketing and management departments added logistics and supply chain management to their course offerings.<sup>4</sup>

Richard Lancioni has extensively studied the environment of logistics education. A researcher and professor of supply chain management at Temple University, Lancioni authored several articles on the trends and structures of logistics programs within U.S. institutions of higher education. One of his articles notes that "the growth of logistics departments in colleges and universities has been unprecedented in the past ten years. In response to this demand, schools expanded their programs to

<sup>&</sup>lt;sup>1</sup> "CSCMP Supply Chain Management Definitions." *Council of Supply Chain Management Professionals*, http://cscmp.org/aboutcscmp/definitions.asp

<sup>&</sup>lt;sup>2</sup> Ibid.

<sup>&</sup>lt;sup>3</sup> Knemeyer, A.M. and Murphy, P. 2004. "Promoting the value of logistics to future business leaders: An exploratory study using a principles of marketing experience." *International Journal of Physical Distribution & Logistics Management*, 34:10, 775-792.

<sup>&</sup>lt;sup>4</sup> Golicic S.L. et al. 2004. "And who will teach them? An investigation of the logistics PhD Market." *Journal of Education for Business*, 80:1, 47-51.

accommodate more students at both the graduate and undergraduate levels."<sup>5</sup> However, he has also observed that **logistics departments in general have failed to develop their programs "to more accurately reflect the multi-disciplinary nature of supply-chain management**."<sup>6</sup> Though it is important that institutions of higher education develop logistics programs in light of the fact that "student, scholarly, and especially corporate interest in the study of logistics dramatically increasing,"<sup>7</sup> institutions often encounter many roadblocks and challenges when doing so.

Despite the institutional response to increased demand, our review suggests that **high demand continues to exist for qualified individuals to fill positions that relate to Industrial Logistics programs**. To further investigate this issue, we compare degree conferrals in this field to labor demand projections in Florida and the United States as a whole. Our methodology and key findings are provided below.

#### Methodology

Presently, the National Center for Education Statistics (NCES) does not identify a unique "Industrial Logistics" program. However, it does identify a program known as **Logistics and Materials Management** (CIP Code 52.0203), located within the larger Business, Management, Marketing, and Related Support Services category. This program seems to align well with Florida Gateway College's vision for establishing an Industrial Logistics program. The NCES describes Logistics and Materials Management (LMM) as:

a program that prepares individuals to manage and coordinate all logistical functions in an enterprise, ranging from acquisitions to receiving and handling, through internal allocation of resources to operations units, to the handling and delivery of output. Includes instruction in acquisitions and purchasing, inventory control, storage and handling, just-in-time manufacturing, logistics planning, shipping and delivery management, transportation, quality control, resource estimation and allocation, and budgeting.<sup>8</sup>

Employment projections were collected through the Bureau of Labor Statistics (BLS) and the State of Florida's Agency for Workforce Innovation (FAWI) in an effort to gauge market demand for graduates of Logistics and Materials Management. According to the occupational crosswalk provided by the NCES, the BLS associates

<sup>&</sup>lt;sup>5</sup> Lancioni, R. 2001. "Logistics Programs in Universities: Stovepipe vs. Cross-Disciplinary." *International Journal of Physical Distribution and Logistics Management*, 31:1, 53-64.

<sup>&</sup>lt;sup>6</sup> Ibid.

<sup>&</sup>lt;sup>7</sup> Lancioni, R. 2001. "Logistics and Supply Chain Education: Roadblocks and Challenges." *International Journal of Physical Distribution and Logistics Management*, 31:10, 733-745.

<sup>&</sup>lt;sup>8</sup> "Classification of Instructional Programs: 2000 Edition." National Center for Education Statistics, III-216. http://nces.ed.gov/pubs2002/2002165.pdf

only two occupational titles with LMM degrees: **Transportation, Storage, and Distribution Managers** (Standard Occupational Classification Code 11-3071) and **Logisticians** (SOC Code 13-1081).

In addition to LMM, there are several other degree programs that qualify graduates for jobs as Transportation, Storage and Distribution Managers and Logisticians. The NCES's occupational crosswalk identifies six other programs that correspond to these occupations, which include:

- ✤ Aeronautics/Aviation/Aerospace Science and Technology, General (49-0101)
- ✤ Aviation/Airway Management and Operations (49-0104)
- ✤ Business Administration and Management, General (52-0201)
- Business/Commerce, General (52-0101)
- ✤ Operations Management and Supervision (52-0205)
- Public Administration (44-0401)

Throughout the report, these are collectively termed "IL-related programs." While the report focuses primarily on LMM programs, information and data on these other programs is occasionally included in order to provide a more complete picture of the potential supply of graduates equipped for the industrial logistics occupations.

#### **Geographic Scope**

Information on existing educational opportunities and employment demand were gathered for the following geographic areas: the United States, the State of Florida, and FAWI Workforce Regions 6-10, the area surrounding Florida Gateway College (hereafter referred to as the "FGC Region"). In the breakdown of this local area presented in Table 1.1 and Figure 1.1, FGC is located in Region 7.

Region	Counties	Employ Florida Local Affiliate
6	Hamilton, Jefferson, Lafayette, Madison, Suwannee, Taylor	North Florida Workforce Development Board
7	Columbia, Dixie, Gilchrist, Union	Florida Crown Workforce Board
8	Baker, Clay, Duval, Nassau, Putnam, St. Johns	First Coast Workforce Development
9	Alachua, Bradford	Alachua/Bradford FloridaWorks
10	Citrus, Levy, Marion	CLM Workforce Connection

Table 1.1. FGC Region (FAWI Workforce Regions 6 – 10)

Source: State of Florida, Agency for Workforce Innovation



Source: State of Florida, Agency for Workforce Innovation

#### Summary of Key Findings

#### Growth of LMM and Related Programs

- ✤ A comparison of national trends reveals that, while master's degree conferrals in LMM and related fields are growing the fastest, bachelor's degree conferrals continue to dominate the overall pool of graduates.
- Competition from institutions in the FGC Region is virtually nonexistent. In the previous five years, only one Florida institution (the University of Phoenix, North Florida campus) granted a bachelor's degree in Logistics and Materials Management (one degree conferral, in 2009).
- Graduates of an Industrial Logistics program at Florida Gateway College would face competition from graduates of other programs within Florida that prepare students for a career in logistics and supply chain management, primarily from graduates within Business Administration and Management.

5

✤ In 2009, Region 11 had the largest proportion of IL-related bachelor's degree conferrals in Florida; Region 22 had the largest proportion of IL-related master's degree conferrals, yet Region 9 had a large share of conferrals as well.

#### Projecting Employment Demand

- Projections regarding the national market for occupations related to Logistics and Materials Management vary. Although, the BLS projects a slow decline for Transportation, Storage, and Distribution Managers through the year 2018, it projects strong growth for Logisticians.
- ✤ According to a national survey of employees in these areas, the majority of respondents stated that they had obtained a bachelor's degree.
- Projections at the state level are more favorable for Transportation, Storage, and Distribution Managers as compared to national projections; however job openings for Logisticians are thought to grow at a slightly slower rate in Florida than at the national level.
- According to the state's official hub for job openings and employment statistics, the state outlook for Transportation, Storage, and Distribution Managers and Logisticians is good.
- Projected demand for Transportation, Storage, and Distribution Managers by Workforce Region is mixed throughout the state; however, projected demand for Logisticians is strong in almost all of Florida's Workforce Regions.
- Florida's Agency for Workforce Innovation projects that regions 7 and 9 will be the areas that occupations for Transportation, Storage, and Distribution Managers will experience the most growth through 2018. Further, it projects that job openings for Logisticians will experience very high growth within regions 8, 9, and 10 through 2018.
- In the FGC region, Duval County has the largest number of job openings listed for Transportation, Storage, and Distribution Managers and Logisticians.

The table on the following page provides an index of the tables and figures found throughout the report.

Number	Title	Page					
	Introduction						
Table 1.1	FGC Region (FAWI Workforce Regions 6-10)	4					
Figure 1.1	FGC Region (FAWI Workforce Regions 6-10)	5					
Growth of Logistics and Materials Management and Related Programs							
Table 2.1	Total Degree Completions in Logistics and Materials Management and Related Programs	8					
Table 2.2	Degree Completions in Logistics and Materials Management	9					
Table 2.3	Degree Completions in Other IL-Related Programs	9-10					
Table 2.4	LMM Bachelor's Degree Completions at Top U.S. Institutions	11					
Table 2.5	LMM Master's Degree Completions at Top U.S. Institutions	12					
Table 2.6	Bachelor's and Master's Degree Completions at Top Florida Institutions in All Industrial Logistics-Related Programs	13					
Figure 2.7	Florida Bachelor's Degree Completions in All Industrial Logistics- Related Programs (2009), by Workforce Region	15					
Figure 2.8	Florida Master's Degree Completions in All Industrial Logistics- Related Programs (2009), by Workforce Region	15					
Table 2.9	Local Degree Completions in Logistics and Materials Management, and Related Programs	16-17					
	Projecting Employment Demand						
Table 3.1	U.S. Employment Projections	20					
Figure 3.1	Top Five U.S. Industry Employers of Transportation, Storage, and Distribution Managers	21					
Figure 3.2	Top Five U.S. Industry Employers of Logisticians	22					
Table 3.2	Florida Employment Projections (20010 – 2018)	23					
Table 3.3	Florida Job Openings – Annual Averages (2010 – 2018)	23					
Table 3.4	Employment Projections for Transportation, Storage, and Distribution Managers, by Workforce Region	24					
Table 3.5	Employment Projections for Logisticians, by Workforce Region	25					
Table 3.6	Florida's Top Ten Employers of Transportation Managers	26					
Table 3.7	Florida's Top Ten Employers of Storage and Distribution Managers	26-27					
Table 3.8	Florida's Top Ten Employers of Logisticians	27					
Table 3.9	Florida Job Listings for Each Occupation	28-29					
Table 3.10	Top Florida Counties for Employment, by Job Openings	30					
Table 3.11	Most Common Education Requirements, by Percentage	31					
Table 3.12	Local Employment Projections (2010 – 2018)	31					
Table 3.13	Local Employment Projections – Annual Averages (2010 – 2018)	32					
	Industrial Distribution Program Profiles						
Table 4.1	Purdue University Course Requirements	34					
Table 4.2	Selected Industrial Technology Coursework at Purdue University	34-35					
Table 4.3	Selected Industrial Technology Coursework at UN-Kearney	36-37					
	Appendix						
Table A1	Florida Workforce Regions and Local Affiliates	38-39					

#### Growth of Logistics and Materials Management and Related Programs

Our analysis of IL-related program growth is based on NCES data from the last five years and focuses on reported degree conferrals at the national, statewide, and regional levels. The first three tables in this section compare five-year conferral trends in Logistics and Materials Management, as well as other programs that qualify graduates for IL-related jobs, at both bachelor's and master's levels, and demonstrates how various degree levels compare to one another. This introduction provides insight into the large-scale growth of these programs. With these broad trends in mind, we then look at degree conferral trends among top individual institutions, starting nationally and narrowing our analysis to FGC's state and local competitors.

#### **Overall Program Growth**

Table 2.1 gives the broadest overview of IL-related programs, allowing for general comparisons among bachelor's and master's degree programs at the regional, state, and national levels. In regard to the total degrees conferred at all three levels, IL-related degree programs have demonstrated positive growth across the board, trending generally upward over the last five years.

		Deg	5-Year Change						
Degree Type	2004-05	2005-06	2006-07	2007-08	2008-09	Numeric	Percent		
FGC Region									
Bachelor's	1,270	1,149	1,026	1,091	1,111	-159	-13%		
Master's	909	947	1,075	1,141	1,336	427	47%		
Total Degrees	2,179	2,096	2,101	2,232	2,447	268	12%		
			Florida						
Bachelor's	8,881	9,610	9,897	9,647	8,915	34	0%		
Master's	5,059	5,072	5,455	5,910	6,362	1,303	26%		
Total Degrees	13,940	14,682	15,352	15,557	15,277	1,337	10%		
			United Sta	tes					
Bachelor's	156,591	161,854	165,363	167,959	168,304	11,713	7%		
Master's	102,172	105,252	109,503	116,953	127,470	25,298	25%		
Total Degrees	258,763	267,106	274,866	284,912	295,774	37,011	14%		

### Table 2.1. Total Degree Completions in Logistics and Materials Management and Related Programs\*

\* Note: Table includes CIP codes 11-3071, 13-1081, 49-0101, 49-0104, 52-0201, 52-0101, 52-0205, 44-0401 Source: U.S. Department of Education, NCES IPEDS Data Center

Five years ago, the FGC region's IL-related degree conferrals accounted for roughly 15 percent of Florida's total degree conferrals. Master's degree conferral growth in the region increased its contribution to the statewide numbers slightly, pushing it to approximately 16 percent in AY 2008-09. While bachelor's degree conferrals declined

slightly in the FGC region, remained stable at the state level during the five-year period, and grew slightly nationwide, the most obvious trend is the growth in master's degree conferrals at local, state, and national levels. Although, numerical trends suggest that master's degree programs are receiving the most interest from students who wish to study in IL-related fields, trends in bachelor's conferrals at state and national levels suggest interest remains strong in these programs. These large-scale trends are worthy of analysis in further detail. The two tables below, in which Logistics and Materials Management and other IL-related degree conferrals data are presented separately, provide a more detailed look at trends in these areas.

Degree Type		Deg	5-Year Change				
Degree Type	2004-05	2005-06	2006-07	2007-08	2008-09	Numeric	Percent
			FGC Regi	on			
Bachelor's	0	0	0	0	1	1	N/A
Master's			No degree	es conferred			N/A
Total Degrees	0	0	0	0	1	1	N/A
			Florida				
Bachelor's	0	0	0	0	1	1	N/A
Master's	77	84	76	107	97	20	26%
Total Degrees	77	84	76	107	98	21	27%
			United Sta	ites			
Bachelor's	1,538	1,251	1,267	1,387	1,514	-24	-2%
Master's	237	427	368	323	330	93	39%
Total Degrees	1,775	1,678	1,635	1,710	1,844	69	4%

Table 2.2. Degree	Completions in	Logistics and Mater	ials Management*

\*Note: Table includes CIP codes 11-3071 and 13-1081

Source: U.S. Department of Education, NCES IPEDS Data Center

Degree Type		Deg	5-Year Change						
Degree Type	2004-05	2005-06	2006-07	2007-08	2008-09	Numeric	Percent		
	FGC Region								
Bachelor's	1,270	1,149	1,026	1,091	1,110	-160	-13%		
Master's	909	947	1,075	1,141	1,336	427	47%		
Total Degrees	2,179	2,096	2,101	2,232	2,446	267	12%		
			Florida						
Bachelor's	8,881	9,610	9,897	9,647	8,914	33	0%		
Master's	4,982	4,988	5,379	5,803	6,265	1,283	26%		
Total Degrees	13,863	14,598	15,276	15,450	15,179	1,316	9%		
			United Sta	tes					
Bachelor's	155,053	160,603	164,096	166,572	166,790	11,737	8%		
Master's	101,935	104,825	109,135	116,630	127,140	25,205	25%		

### Table 2.3. Degree Completions in Other IL-Related Programs\*

Degree Type		Deg	5-Year Change				
Degree Type	2004-05	04-05 2005-06 2006-07 2007-08 2008-09				Numeric	Percent
Total Degrees	256,988	265,428	273,231 283,202 293,930		36,942	14%	

\*Note: Table includes CIP codes 49-0101, 49-0104, 52-0201, 52-0101, 52-0205, 44-0401 Source: U.S. Department of Education, NCES IPEDS Data Center

Separating the number of Logistics and Materials Management degree conferrals from other IL-related degree conferrals highlights some important facts for each of the geographic distinctions.

### FGC Region:

- Only one bachelor's degree was conferred for the entire period, in academic year 2008-09. This degree was conferred at the private, for-profit University of Phoenix, North Florida campus.
- ◆ LMM master's degrees have yet to be conferred in the FGC region.
- In the course of the past five years, master's degree conferrals have overtaken bachelor's conferrals with respect to other IL-related programs. This amounts to a 47 percent increase for the former, and a 13 percent decrease for the latter.

### Florida:

- Only one LMM bachelor's degree was conferred in Florida during the five-year period (also in 2009 from the University of Phoenix's North Florida campus). That same year, there were 97 master's level LMM conferrals.
- Degree conferrals from other IL-related programs were primarily at the bachelor's level, although conferrals of master's degrees are increasing rapidly (26 percent during the five-year period).
- Overall, growth of LMM conferrals was higher than that of conferrals within IL-related programs during the five-year period (27 percent to 9 percent, respectively). However, when viewed strictly at the master's level, growth was the same: 26 percent.

### United States:

National conferrals of LLM degrees fell between the 2004-05 and 2005-06 academic years, but increased each year since then. Conferrals fell 2 percent overall during the five-year period.

- Degree conferrals within IL-related programs experienced healthy growth at both bachelor's and master's levels.
- Five-year growth was positive for all award levels in both LMM and IL-related programs. Master's degree conferrals had the fastest growth, increasing 39 percent for LMM degrees and 25 percent for IL-related degrees.

The national arena, as the largest statistical pool, more clearly indicates individual trends in LMM and IL-related degree conferrals. The following section displays trends in LLM degree conferrals at top U.S. institutions at both bachelor's and master's levels.

#### **Top U.S. Institutions**

#### Bachelor's Degrees

National statistics from the largest Logistics and Materials Management bachelor's degree programs are useful from at least two perspectives: 1) they help to identify model programs, and 2) they provide a consistent data set from which to observe national trends. In the long term, **these programs, despite being outside of Florida, might be viewed as competition** from a national program standpoint, if not from a student-supply standpoint.

The table below shows the top ten U.S. institutions with active Logistics and Materials Management bachelor's degree programs, based on average annual degree conferrals. The purpose of this table is to show trends among the highest performers in the nation.

Awarding Institution		Deg	rees Confe	erred		5-Year
Awarding Institution	2004-05	2005-06	2006-07	2007-08	2008-09	Growth
Michigan State University	215	197	202	232	208	-3%
Ohio State University, Main Campus	217	170	110	97	85	-61%
The University of Tennessee	111	110	126	125	185	67%
Central Michigan University	99	88	103	92	101	2%
Auburn University, Main Campus	83	93	67	98	77	-7%
University of Maryland, College Park	106	36	97	85	27	-75%
Western Michigan University	47	55	62	64	75	60%
Bowling Green State University, Main Campus	55	57	43	59	65	18%
Iowa State University	46	58	45	54	55	20%
University of Arkansas	70	51	49	48	40	-43%

#### Table 2.4. LMM Bachelor's Degree Completions at Top U.S. Institutions

Source: U.S. Department of Education, NCES IPEDS Data Center

The program in closest proximity was at Auburn University in Alabama, which averaged 84 bachelor's degree conferrals in this area from 2005 to 2009. Most other LMM programs are located in the industrial Midwest, primarily in Michigan and Ohio.

#### Graduate Degrees

Master's degree programs in Logistics and Materials Management are included here because graduates of these programs will also be qualified for occupations in Industrial Logistics, especially managerial occupations. Table 2.5 provides data on LMM master's degree conferrals at top U.S. institutions, again based on average annual degree conferrals.

i ubie 2001 Elititi i i ubiel o De	8	-r	<u> </u>				
Awarding Institution		Degrees Conferred					
Awarding Institution	2004-05	2005-06	2006-07	2007-08	2008-09	Growth	
Florida Institute of Technology	77	84	76	107	97	26%	
Air Force Institute of Technology	0	168	79	39	32	N/A	
Georgia College & State University	31	35	27	21	24	-23%	
University of San Diego	27	24	35	11	17	-37%	
Elmhurst College	14	17	20	21	17	21%	
Georgia Institute of Technology, Main Campus	27	2	18	5	24	-11%	
Wright State University, Main Campus	0	21	15	14	18	N/A	
Texas A & M University	11	11	17	12	13	18%	
Michigan State University	9	9	12	20	13	44%	
California State University, Long Beach	11	8	8	9	12	9%	

#### Table 2.5. LMM Master's Degree Completions at Top U.S. Institutions

Source: U.S. Department of Education, NCES IPEDS Data Center

Although there were no Florida institutions among the top ten conferrers of Logistics and Materials Management bachelor's degrees, the Florida Institute of Technology is the top conferrer of master's degrees in this area, averaging 88 conferrals per year. Two Georgia institutions are on the top ten list: Georgia College & State University and Georgia Institute of Technology. The former is the third-largest conferrer of such degrees (though it only conferred 28 degrees per year on average), and the latter is the sixth-largest conferrer. Both institutions have seen conferrals of LMM master's degrees dip slightly in recent years.

#### Florida Industrial Logistics-Related Programs

Early in this report, we noted general comparisons between national and state-level degree conferrals for IL-related programs. Table 2.6 shows IL-related degree conferrals for all institutions in Florida, with all programs grouped together within each institution (for institutions that confer degrees in more than one IL-related

program). The reason for this is that the proportion of LMM degrees to other ILrelated degrees is very small (see Tables 2.2 and 2.3). The data, however, are broken down by award level, as this provides a better picture of Florida trends and the potential flow of students in and out of relevant bachelor's programs in Florida.

			0	ees Confer	0	5-Year Change		
Awarding Institution	2004-05	2005-06	2006-07	2007-08	2008-09	Numeric	Percent	
Bachelor's								
Embry Riddle Aeronautical, Worldwide	1,506	1,678	2,192	1,857	1,868	362	24%	
University of Central Florida	562	629	613	607	630	68	12%	
Saint Leo University	736	782	637	679	3	-733	-100%	
University of Florida*	662	487	389	368	433	-229	-35%	
Florida International University	454	457	531	437	440	-14	-3%	
Florida Atlantic University	381	441	441	422	438	57	15%	
Nova Southeastern University	436	408	447	454	324	-112	-26%	
University of South Florida, Main	372	400	413	453	330	-42	-11%	
Barry University	336	336	266	321	344	8	21/0	
Florida State University	269	301	313	381	335	66	25%	
		Master	's					
Nova Southeastern University	590	665	717	767	815	225	38%	
University of Florida*	570	601	645	760	885	315	55%	
University of Miami	404	390	403	358	330	-74	-18%	
University of Central Florida	309	292	311	309	291	-18	-6%	
Florida International University	295	257	266	317	359	64	22%	
University of South Florida, Main	269	266	240	289	231	-38	-14%	
Florida Institute of Technology	215	248	200	228	231	16	7%	
Florida Atlantic University	259	206	206	201	239	-20	-8%	
Rollins College	182	175	207	205	221	39	21%	
University of North Florida*	188	169	204	191	196	8	4%	

Table 2.6. Bachelor's and Master's Degree Completions at Top FloridaInstitutions in All Industrial Logistics-Related Programs

Source: U.S. Department of Education, NCES IPEDS Data Center

\*Regional competitor (located in one of the 21 counties within FAWI Regions 6-10).

Institutions that conferred bachelor's degrees but not master's degrees include Embry Riddle Aeronautical University (Worldwide), Saint Leo University, Barry University, and Florida State University. Institutions that conferred master's degrees but not bachelor's degrees include the University of Miami, Florida Institute of Technology, Rollins College, and the University of North Florida.

Five institutions showed positive growth in the number of bachelor's degree conferrals reported: Embry Riddle Aeronautical, the University of Central Florida, Florida Atlantic University, Florida State University, and Barry University (which

experienced only slight growth). The most significant source of growth was Embry Riddle Aeronautical, which conferred 362 more IL-related bachelor's degrees in 2009 than in 2005, a growth rate of 24 percent. In terms of decreases of bachelor's degree conferrals, Saint Leo University experienced the most dramatic loss of conferrals over the five-year period, falling from 736 IL-related bachelor's degrees in 2005 to only 3 of these degrees in 2009. The University of Florida experienced a significant decline as well, falling by 229 conferrals (35 percent). In both instances, the drop in conferrals was within Business programs (Business/ Commerce for Saint Leo University, and Business Administration and Management for the University of Florida).

Six institutions experienced positive growth in the number of IL-related master's degrees conferred; the most significant growth took place at the University of Florida (55 percent growth, and 315 additional conferrals), mostly within Business Administration and Management. This was followed by Nova Southeastern University, which grew by 38 percent in adding 225 additional degree conferrals. Further, decreases in conferrals at certain institutions were generally less dramatic than at the bachelor's level (the largest rate of decrease was 18 percent at the University of Miami).

In addition to looking at the top institutions in Florida that conferred IL-related degrees in the course of the past five years, it is also useful to consider statewide conferrals relative to Workforce Region. IPEDS bachelor's and master's degree conferrals data for AY 2008-09 show that some Workforce Regions have a much higher concentration of IL-related program graduates than others. At the bachelor's degree level, Region 11 conferred nearly 25 percent of all IL-related degrees in 2009; this was mainly due to the high number of degree conferrals at Embry Riddle in Volusia County. The second-largest conferrer of degrees in this area was Region 23 (Miami-Dade and Monroe counties), with 12 percent of all conferrals. This was primarily a result of significant Business Administration and Management conferrals at Florida International University and Barry University (although Barry University had substantial conferrals within Public Administration as well). Regions 12, 22, and 21 also had a substantial amount of conferrals. These data are displayed in further detail in Figure 2.7 on the following page.

With respect to 2009 master's degree conferrals by Workforce Region, the landscape is quite different. Conferrals in Region 11 are insignificant, whereas conferrals in Regions 22, 12, 23, and 9 collectively contained 60 percent of all IL-related conferrals statewide. While Regions 22 and 23 are of no immediate concern to Florida Gateway, the prominence of Region 9 stems from the substantial **Business Administration master's degree conferrals from the University of Florida** in Alachua County. Figure 2.8 on the following page displays this comparison in further detail.



Figure 2.7. Florida Bachelor's Degree Completions in All Industrial Logistics-Related Programs (2009), by Workforce Region

Figure 2.8. Florida Master's Degree Completions in All Industrial Logistics-Related Programs (2009), by Workforce Region



#### Local Competition

Local competition (i.e., within FAWI Workforce Areas 6-10) for an Industrial Logistics bachelor's degree program is virtually nonexistent. The only Industrial Logistics program in existence in the FGC region, as well as in the entire State of Florida, is at the University of Phoenix, North Florida, which conferred only one such degree in 2009; no degrees were conferred during any other years.

Table 2.10 on the following page provides data on LMM and IL-related degree conferrals, which are primarily at the bachelor's level, though there are some at the master's level as well, deriving from the FGC region. In this table, conferrals for both LMM programs and specific IL-related programs are included, in part due to the limited LMM conferrals but also because graduates from these related programs may compete for the same jobs as LMM graduates. According to the National Crosswalk Service Center, graduates of these other programs have access to the same employment opportunities (i.e. jobs as Transportation, Storage, and Distribution Managers, and Logisticians) as graduates of LMM programs. Two such programs—Aeronautics/Aviation/ Aerospace Science and Technology (General) and Operations Management and Supervision—did not receive any degree conferrals, and are therefore not included in the table below. LMM degree conferrals are listed first, followed by conferrals from the other IL-related programs.

 

 Table 2.9. Local Degree Completions in Logistics and Materials Management, and Related Programs

Awarding Institution	Degree	Lo	Logistics-Related Degrees Conferred					5-Year Change	
Awarding institution	Туре	2004-05	2005-06	2006-07	2007-08	2008-09	Numeric	Percent	
	Ι	Logistics a	nd Materia	lls Manage	ement				
University of Phoenix, North Florida	Bachelor's	0	0	0	0	1	1	N/A	
Total Degrees	3	0	0	0	0	1	1	N/A	
	Aviat	ion/Airwa	y Manager	nent and C	Operations				
Jacksonville University	Bachelor's	13	9	8	14	16	3	23%	
Total Degrees	5	13	9	8	14	16	3	23%	
	Business	s Administ	ration and	Managem	ent, Gene	eral			
City College Branch Campus	Bachelor's	13	16	11	4	8	-5	-38%	
Edward Waters College	Bachelor's	16	9	13	20	15	-1	-6%	
Everest University, Jacksonville	Bachelor's	16	22	11	17	6	-10	-63%	
Everest University, Jacksonville	Master's	14	2	2	0	10	-4	-29%	

A	Degree	Lo	gistics-Rel	ated Degre	ees Confer	red	5-Year	5-Year Change	
Awarding Institution	Type	2004-05	2005-06	2006-07	2007-08	2008-09	Numeric	Percent	
Everest University, Orange Park	Bachelor's	0	0	1	6	8	8	N/A	
Flagler College	Bachelor's	91	114	81	100	127	36	40%	
Jacksonville University	Bachelor's	61	23	6	8	15	-46	-75%	
Jacksonville University	Master's	13	15	12	13	19	6	46%	
Jones College, Jacksonville	Bachelor's	61	63	64	65	45	-16	-26%	
Rasmussen College, Ocala	Bachelor's	10	6	14	17	16	6	60%	
University of Florida	Bachelor's	662	487	389	368	433	-229	-35%	
University of Florida	Master's	570	601	645	760	885	315	55%	
University of North Florida	Bachelor's	205	180	205	246	213	8	4%	
University of North Florida	Master's	1	158	178	158	179	178	17800%	
University of Phoenix, North Florida	Bachelor's	107	172	184	159	161	54	50%	
University of Phoenix, North Florida	Master's	66	98	139	111	118	52	79%	
Total Degrees	8	1,906	1,966	1,955	2,052	2,258	352	18%	
	1	Busines	s/Comme	rce, Gene	ral		1		
University of North Florida	Master's	176	0	0	0	0	-176	-100%	
Jacksonville University	Bachelor's	15	23	19	20	11	-4	-27%	
Jacksonville University	Master's	58	62	73	66	108	50	86%	
Total Degrees	3	249	85	92	86	119	-130	-52%	
	Public Administration								
Flagler College	Bachelor's	0	25	20	47	36	36	N/A	
University of North Florida	Master's	11	11	26	33	17	6	55%	
Total Degrees		11	36	46	80	53	42	382%	

Source: U.S. Department of Education, NCES IPEDS Data Center

Some important observations can be made about both the data and absence of data in Table 2.10:

- There is only one institution that has awarded a Logistics and Materials Management bachelor's degree (University of Phoenix, North Campus); this was in 2009, and consisted of only one degree conferral.
- The largest IL-related program in the FGC region, both in terms of number of programs and conferrals, is Business Administration and Management.
- Business/Commerce conferrals in the region dropped sharply during this five-year period, largely as a result of a cessation of conferrals from the University of North Florida.
- Conferrals in Public Administration degrees rose significantly, aided primarily by Flagler College, which began granting bachelor's degrees in this program in 2005.

#### National Outlook

Aligning the relevant CIP Codes from the NCES with SOC Codes from the Bureau of Labor Statistics (BLS) reveals two main occupational classifications appropriate for graduates from Logistics and Materials Management programs: **Transportation, Storage, and Distribution Managers** (SOC Code 11-3071) and **Logisticians** (SOC Code 13-1081). Both of these occupations entail the management and coordination of logistical functions within an organization.

According to the BLS, Transportation, Storage, and Distribution Managers

Plan, direct, or coordinate transportation, storage, or distribution activities in accordance with organizational policies and applicable government laws or regulations. [This] includes logistics managers.<sup>9</sup>

The BLS projects a **slow decline for Transportation, Storage, and Distribution Managers through the year 2018**. The BLS estimates that this occupation will lose approximately 5 percent of its workforce during this ten-year period. The most significant source of postsecondary training for Transportation, Storage, and Distribution Managers is related work experience.<sup>10</sup>

Logisticians, in contrast to Transportation, Storage, and Distribution Managers, tend to place more emphasis on formal education than on work experience in a related occupation. The BLS states that Logisticians

Analyze and coordinate the logistical functions of a firm or organization. [They are] responsible for the entire life cycle of a product, including acquisition, distribution, internal allocation, delivery, and final disposal of resources.<sup>211</sup>

The BLS projects **"much faster than average" growth in this field through 2010**. Although the Transportation, Storage, and Distribution Managers occupation includes logistics managers, Logisticians do not include Transportation, Storage, and Distribution Managers. The most significant source of postsecondary training for Logisticians is a bachelor's degree.<sup>12</sup>

Table 3.1 presents projected employment numbers published by the BLS for the period 2008 through 2018.

<sup>&</sup>lt;sup>9</sup> "Management, Business, and Financial Occupations." Occupational Outlook Handbook, 2010-11 Edition. U.S.

Department of Labor: Bureau of Labor Statistics. http://www.bls.gov/oco/oco20051.htm

<sup>&</sup>lt;sup>10</sup> Ibid.

<sup>&</sup>lt;sup>11</sup> Ibid.

<sup>&</sup>lt;sup>12</sup> Ibid.

Occupational Title	SOC	Empl	oyment Ten-Year Chang		Change	
Occupational The	Code	2008	2018 (Est.)	Number	Percent	
Transportation, Storage, and Distribution Managers	11-3071	99,700	94,400	-5,200	-5.3%	
Logisticians	13-1081	100,400	120,000	19,600	19.6%	

### Table 3.1. U.S. Employment Projections

Source: U.S. Department of Labor, Bureau of Labor Statistics

It is useful to note the types of jobs across the nation that fall under the umbrella of each occupational title. O\*NET, a program sponsored by the U.S. Department of Labor, is "the nation's primary source of occupational information."<sup>13</sup> It splits "Transportation, Storage, and Distribution Managers" into two different occupations: "Transportation Managers" and "Storage and Distribution Managers." Job titles reported to O\*NET under "Transportation Managers" include:<sup>14</sup>

- Trainmaster
- Train Master
- Dispatcher
- Transportation Manager
- Transportation Director

- Freight Coordinator
- Fleet Manager
- ✤ Traffic Manager
- ✤ Global Transportation Manager
- Train Operations Manager

Thirteen percent of individuals with these job titles surveyed by O\*NET reported that they had some college experience but no degree, while 17 percent held a master's degree and **70 percent held a bachelor's degree**.<sup>15</sup>

Job titles reported to O\*NET under "Storage and Distribution Managers" include:16

- ✤ Warehouse Manager
- Distribution Manager
- Distribution Center Manager
- Distribution Operation Manager
- Customer Service Manager

- Shipping Manager
- Shipping Supervisor
- Load Out Supervisor
- Cold Storage Supervisor
- Stores Supervisor

In an O\*NET survey, eight percent of respondents with these job titles reported that they had some college experience but no degree, 21 percent held a high school diploma or equivalent, and **58 percent held a bachelor's degree**.<sup>17</sup>

<sup>13</sup> "About O\*NET." O\*NET. http://www.onetcenter.org/overview.html

<sup>&</sup>lt;sup>14</sup> "11-3071.01: Transportation Managers." O\*NET.

http://online.onetcenter.org/link/summary/11-3071.01 <sup>15</sup> Ibid.

<sup>&</sup>lt;sup>13</sup> 1010. 16 "11\_3071 0

<sup>&</sup>lt;sup>16</sup> "11-3071.02: Storage and Distribution Managers." O\*NET.

http://online.onetcenter.org/link/summary/11-3071.02

<sup>17</sup> Ibid.

O\*NET also provides employment information with respect to Logisticians. Job titles reported under this occupation include:<sup>18</sup>

- Integrated Logistics Support Manager (ILS Manager)
- ✤ Logistician
- ✤ Logistics Team Lead
- Production Planner

Although detailed percentages regarding the educational attainment of Logisticians were not available through O\*NET, it stated that "most of these occupations require a four-year bachelor's degree, but some do not."<sup>19</sup>

The BLS also keeps records of employers by industry. This gives a broad overview of where job seekers fit into the market. Figure 3.1 presents the top five employment industries for Transportation, Storage, and Distribution Managers, shown in relation to one another.

Figure 3.1. Top Five U.S. Industry Employers of Transportation, Storage, and Distribution Managers



Source: U.S. Department of Labor, Bureau of Labor Statistics

A quick glimpse at the above chart reveals that **employment is divided fairly evenly among the top five industry employers of Transportation, Storage, and Distribution Managers**. The General Freight Trucking industry employs the largest proportion (23 percent), while Local Government employs the smallest (16 percent).

<sup>&</sup>lt;sup>18</sup> "13-1081.00: Logisticians." O\*NET. http://online.onetcenter.org/link/summary/13-1081.00
<sup>19</sup> Ibid.

Below, Figure 3.2 presents the top industries that employ Logisticians, shown in relation to one another.



Figure 3.2. Top Five U.S. Industry Employers of Logisticians

Source: U.S. Department of Labor, Bureau of Labor Statistics

The **Federal Executive Branch industry employs half of Logisticians**, and Management of Companies and Enterprises employs the second-largest proportion (17 percent). Both of these industries are also top employers of Transportation, Storage, and Distribution Managers.

#### Florida Employment Outlook

Logisticians and Transportation, Storage, and Distribution Managers fall within some industries that are projected to experience high growth in the course of the next eight years. The following points summarize rankings compiled and maintained by FAWI:

- Among Florida's top 20 "Fastest-Growing Industries,"<sup>20</sup> there are three industries that pertain to Logisticians and Transportation, Storage, and Distribution Managers: Truck Transportation (ranked 8<sup>th</sup>), Support Activities for Transportation (ranked 10<sup>th</sup>), and Warehousing and Storage (ranked 14<sup>th</sup>).
- The Truck Transportation industry is composed of two industry subsectors, one of which is General Freight Trucking. This subsector is the largest industry employer of Transportation, Storage, and Distribution Managers.

<sup>&</sup>lt;sup>20</sup> "Employment Projections to 2018." Agency for Workforce Innovation.

http://www.labormarketinfo.com/Library/EP.htm

Below are the employment projections provided by FAWI for both occupations. As a more precise indicator, FAWI uses the current year's employment numbers as the starting point, resulting in an eight-year projection rather than a ten-year projection. The end-date, however, remains the same for national and state projections.

Occupational Title	SOC	Empl	Employment E		Eight-Year Change	
Occupational The	Code	2010	2018 (Est.)	Number	Percent	
Transportation, Storage, and Distribution Managers	11-3071	3,429	3,474	45	1.3%	
Logisticians	13-1081	3,252	3,856	604	18.6%	

#### Table 3.2. Florida Employment Projections (2010 – 2018)

Source: State of Florida, Agency for Workforce Innovation

Table 3.2 indicates that Florida is expected to exceed national growth rates for employment of Transportation, Storage, and Distribution Managers, though it will fall just short of national projections for Logisticians. Table 3.3 delves deeper into the 2010-18 projections, showing annual growth numbers from FAWI. Of particular interest is the distinction between annual job openings resulting from growth and openings due to vacancy, which hint at the turnover rates seen in each profession.

	SOC	Annual %	Average	enings			
Occupational Title	Code	Change	Growth	Growth Vacancy			
Transportation, Storage, and Distribution Managers	11-3071	0.16%	6	93	99		
Logisticians	13-1081	2.32%	76	70	146		

#### Table 3.3. Florida Job Openings – Annual Averages (2010 – 2018)

Source: State of Florida, Agency for Workforce Innovation

In addition to giving a broad picture of the projected employment of Transportation, Storage, and Distribution Managers and Logisticians, it is also useful to give a detailed picture of projections by Workforce Region. Although Transportation, Storage, and Distribution Manager jobs are expected to grow only slightly overall through 2018, projected growth at the regional level varies significantly: Region 4 is projected to see growth of over 11 percent during this period, and Regions 7, 9, and 12 are expected to see growth rates of over seven percent. In total, 14 out of the 24 regions are projected to experience positive growth through 2018. Conversely, several regions will see a sharp decrease in the number of Transportation, Storage, and Distribution Managers: Region 1 is expected to see a decline of over 12 percent, and Regions 6, 10, and 13 are projected to shrink by more than seven percent. In total, eight of the 24 regions are thought to experience decline through 2018; two workforce regions are projected to experience neither a positive nor a negative Table 3.4 on the following page displays the projections for rate of change. Transportation, Storage, and Distribution Managers by Workforce Region in greater detail.

Workforce	Emplo	yment	Eight-Ye	ar Change
Region	2010	2018 (Est.)	Number	Percent
1	58	51	-7	-12.1%
2	21	22	1	4.8%
3	11	11	0	0.0%
4	27	30	3	11.1%
5	89	86	-3	-3.4%
6	13	12	-1	-7.7%
7	14	15	1	7.1%
8	483	471	-12	-2.5%
9	50	54	4	8.0%
10	39	36	-3	-7.7%
11	60	61	1	1.7%
12	375	403	28	7.5%
13	60	55	-5	-8.3%
14	121	117	-4	-3.3%
15	238	240	2	0.8%
16	31	32	1	3.2%
17	166	173	7	4.2%
18	96	99	3	3.1%
19	11	11	0	0.0%
20	76	77	1	1.3%
21	227	240	13	5.7%
22	277	279	2	0.7%
23	759	747	-12	-1.6%
24	109	112	3	2.8%
Total	3,411	3,434	23	0.7%

# Table 3.4. Employment Projections for Transportation, Storage, andDistribution Managers, by Workforce Region

Source: State of Florida, Agency for Workforce Innovation

There is less variance among regions regarding projections for Logisticians through 2018. Though only 19 of the 24 regions had projections, of these 19, only one region was projected to see a decline in Logisticians (Region 13, by 12 percent). All other regions are expected to experience job growth in this area, it is estimated that 13 of the 19 regions will see a higher growth rate than the overall rate of 17.4 percent. Table 3.5 on the following page displays these detailed statewide projections for Logisticians in further detail.

<sup>&</sup>lt;sup>21</sup> The total figures at the bottom of Tables 3.4 and 3.5 do not precisely match the overall statewide projections found in Table 3.2. According to a representative of the Agency for Workforce Innovation contacted via phone, state and regional projections are based on different variables, and therefore may differ slightly. The representative also noted that projections at the regional level may have a greater level of accuracy than those at the state level.

Workforce	Emplo	yment			
Region	2010	2018 (Est.)	Number	Percent	
1	114	128	14	12.3%	
2	199	220	21	10.6%	
3		No employn	nent reported		
4	111	119	8	7.2%	
5		No employn	nent reported		
6		No employn	nent reported		
7		No employn	nent reported		
8	603	741	138	22.9%	
9	48	60	12	25.0%	
10	37	47	10	27.0%	
11	18	23	5	27.8%	
12	455	554	99	21.8%	
13	246	215	-31	-12.6%	
14	191	225	34	17.8%	
15	300	362	62	20.7%	
16	32	38	6	18.8%	
17	63	65	2	3.2%	
18	32	43	11	34.4%	
19		No employn	nent reported		
20	42	50	8	19.0%	
21	117	142	25	21.4%	
22	193	250	57	29.5%	
23	379	451	72	19.0%	
24	32	37	5	15.6%	
Total	3,212	3,770	558	17.4%	

#### Table 3.5. Employment Projections for Logisticians, by Workforce Region

Source: State of Florida, Agency for Workforce Innovation

#### Job Postings

The next series of tables draw on data collected by **Employ Florida Marketplace**.<sup>22</sup> During his term as governor, Charlie Crist endorsed Employ Florida Marketplace as "Florida's official online portal to virtual job-matching services."<sup>23</sup> The website is essentially a state-sanctioned hub for online job postings, employee and employer profiles, and employment statistics in the State of Florida. This all-purpose pool of employment information allows for useful comparisons between key variables.

<sup>&</sup>lt;sup>22</sup> Employ Florida Marketplace. https://www.employflorida.com/

<sup>&</sup>lt;sup>23</sup> "A message from Governor Charlie Crist." Employ Florida Marketplace.

http://www.employflorida.com/gsipub/index.asp?docid=800

Search terms within the Employ Florida Marketplace search tool included all possible job titles (e.g. Freight Manager) listed above for each of the three occupations. Employ Florida records each of the three occupations as having a "Bright Outlook."<sup>24</sup>

Below, Tables 3.6 and 3.7 indicate the top ten employers in Florida within each occupation, based on their current number of online-posted job openings. The first table, which tracks the state's top ten employers of Transportation Managers, shows that there are currently no clear frontrunners in this area. It is unclear why Boley Centers, Inc. appears in the rankings twice, other than simply a clerical error on the part of Employ Florida. It may be the result of a very slight variation in presentation: some postings place a comma after "Boley Centers," while others do not.

<i>Employ</i> <i>Florida</i> Rank	Employer Name	Job Openings		
1	CEVA Logistics	2		
2	Buckle	2		
3	Saddle Creek Corporation	2		
4	Wyndham Worldwide Corporation	1		
5	Carnival Cruise Lines	1		
6	Adventist Health System	1		
7	American Cancer Society (Pinellas Co.)	1		
8	Arnold Transportation Services	1		
9	Boley Centers Inc	1		
10	Boley Centers, Inc.	1		

# Table 3.6. Florida's Top Ten Employers ofTransportation Managers

Source: Employ Florida Marketplace, Occupational Profile: "Logisticians"

Table 3.7 reveals that Restaurant Depot, a supplier of wholesale goods for restaurants, is hiring the largest number of Storage and Distribution Managers. Restaurant Depot has seven locations throughout the State of Florida, and is hiring at five of these locations.<sup>25</sup> Of the four positions open at Coca-Cola, three are at separate locations.

# Table 3.7. Florida's Top Ten Employers ofStorage and Distribution Managers

<i>Employ</i> <i>Florida</i> Rank	Employer Name	Job Openings
1	Restaurant Depot	6
2	Coca-Cola	4

<sup>&</sup>lt;sup>24</sup> All information from the Employ Florida Marketplace is current as of January 11, 2011.

<sup>&</sup>lt;sup>25</sup> "Locations." Restaurant Depot. http://www.restaurantdepot.com/misc/locations.aspx#southeast

<i>Employ</i> <i>Florida</i> Rank	Employer Name	Job Openings
3	Dr Pepper Snapple Group	3
4	Pitney Bowes	3
5	DHL International, Ltd.	2
6	Princess Cruises	2
7	FedEx Office	2
8	Saddle Creek Corporation	2
9	hhgregg	2
10	Honeywell	1

Source: Employ Florida Marketplace, Occupational Profile: "Logisticians"

Table 3.8 shows that the U.S. Navy is by far the largest employer in Florida of Logisticians. Fifteen jobs are currently available in this area, and they are located throughout the state. The next-largest employer of Logisticians is BAE Systems, a company that "delivers a full range of products and services for air, land and naval forces."<sup>26</sup> Although BAE has five different locations throughout the State of Florida, all of the jobs that it currently has open are for its location in Okaloosa County.

<i>Employ</i> <i>Florida</i> Rank	Employer Name	Job Openings
1	U.S. Navy	15
2	BAE Systems	6
3	Target	4
4	CACI International Inc	3
5	CHEP	2
6	Sierra Nevada Corp	2
7	Southern Wine & Spirits	2
8	Suddath Transportation Services	1
9	Sierra Nevada Corporation	1
10	Signature Brands	1

#### Table 3.8. Florida's Top Ten Employers of Logisticians

Source: Employ Florida Marketplace, Occupational Profile: "Logisticians"

Targeting specific jobs for Transportation, Storage, and Distribution Managers, as well as Logisticians, Table 3.9 presents a sample of positions available in the State of Florida. Selections reflect varied job titles and locations in the state. In several instances, the name of the organization posting the job and the minimum level of education required for the position were not provided. Of those positions that did cite a required minimum level of education, the Bachelor's degree and the High School diploma were equally cited as requirements. **The table below is not an** 

<sup>&</sup>lt;sup>26</sup> "Key Facts." BAE Systems. http://www.baesystems.com/aboutus/factsheet/index.htm

exhaustive list, as several occupations contained too many job postings for inclusion, including Dispatcher (found within Transportation Managers), as well as Warehouse Manager and Customer Service Manager (found within Storage and Distribution Managers).

Job Title	Organization	Location	Minimum Education
	Transportation Managers		
District Fleet Manager	Waste Management, Inc.	Miami	Bachelor's Degree
Fleet Manager	Arnold Transportation Services	Jacksonville	-
Fleet Manager	Carnival Cruise Lines	Miami	Bachelor's Degree
Fleet Manager	Heartland Express	Jacksonville	-
Fleet Manager Supervisor	Indian River Transport	Tampa	-
Freight Coordinator	Buckle	Tallahassee	-
Freight Coordinator	Buckle	Panama City	-
Freight Coordinator	PSS/World Medical, Inc.	Jacksonville	-
International Transportation Manager	СНЕР	Orlando	Bachelor's Degree
Marketing Traffic Manager	Connectivity Marketing & Media Agency	Saint Petersburg	-
Marketing Traffic Manager	Connectivity Marketing & Media Agency	Saint Petersburg	HS Diploma
Traffic Manager	Connectivity Marketing & Media Agency	Saint Petersburg	Associate's Degree
Traffic Manager	I Creatives	Boca Raton	-
Traffic Manager	Nash Finch Company	Pensacola	-
Transportation Manager	Mosaic	Lithia	Bachelor's Degree
Transportation Manager	-	Sarasota	-
Transportation Manager	Panera	Hollywood	-
Warehouse Logistics Transportation Manager	Toufayan	Plant City	-
	Storage and Distribution Managers		
Assistant Distribution Center Manager	Tribune Company	Deerfield Beach	-
Assistant Distribution Center Manager	Tribune Company	Deerfield Beach	-
Assistant Distribution Center Manager	Tribune Company	Deerfield Beach	-
Distribution Center Manager	Insulation Distributors, Inc.	Riviera Beach	Bachelor's Degree
Distribution Manager	Coca-Cola	Jacksonville	_
Distribution Manager	Suppressed	Marianna	HS Diploma

## Table 3.9. Florida Job Listings for Each Occupation

Job Title	Organization	Location	Minimum Education
Receiving/Shipping Supervisor	Peabody Hotel Group	Orlando	HS Diploma
Regional Distribution Manager	Masco	Orlando	-
Shipping Manager	Confidential 3	Boca Raton	-
Shipping Supervisor	AAR Airlift	Palm Bay	HS Diploma
Vault Shipping Manager	Velda Farms	Winter Haven	-
Vault Shipping Manager	Velda Farms	Orlando	HS Diploma
Water Distribution Manager	Collier County Government	Naples	HS Diploma
	Logisticians		
Integrated Logistics Support Manager	Mainstream Engineering	Rockledge	-
International Production Planner	Nipro Diagnostics, Inc.	Fort Lauderdale	Bachelor's Degree
International Production Planner	Nipro Diagnostics, Inc.	Fort Lauderdale	Bachelor's Degree
Logistician	ABCO Products, Inc.	Miami	-
Logistician	Kelly Government Solutions	Miami	-
Logistician	-	Miami	-
Production Planner	Aerosonic Corporation	Clearwater	Bachelor's Degree
Production Planner	Express Employment Professionals	Ocala	-
Production Planner	Express Employment Professionals	Ocala	HS Diploma
Production Planner	-	Panama City	-
Production Planner	-	Sanford	-
Production Planner	-	Sarasota	-
Production Planner	-	Saint Petersburg	-
Production Planner	Nestle Professional Vitality	Tampa	-
Production Planner	Oceaneering International, Inc.	Panama City	-
Production Planner	OMNI-Source	Saint Petersburg	-
Production Planner	OMNI-Source	Saint Petersburg	-
Production Planner	OMNI-Source	Saint Petersburg	-
Production Planner	OMNI-Source	Saint Petersburg	-
Production Planner	Pro Image Solutions, Inc.	Longwood	-
Production Planner	Pro Image Solutions, Inc.	Orlando	HS Diploma
Production Planner	Randstad US	Saint Petersburg	-
Production Planner	Signature Brands	Ocala	-
Supply Chain Production Planner	-	Fort Lauderdale	-
Supply Chain Production Planner	PepsiCo, Inc.	Bradenton	-

Job Title	Organization	Location	Minimum Education
Supply Chain Production Planner	PepsiCo, Inc.	Bradenton	-

Source: Employ Florida Marketplace

Employ Florida Marketplace also provides a tool for breaking down job postings by county. The following table presents the top counties in Florida for employment within the three occupational areas, ranked by total job postings. Of the top counties for employment, four are shared across all three occupational areas: Duval, Broward, Orange, and Hillsborough counties. The large amount of job openings present within Duval County is encouraging, as it falls within the FGC region. This table also shows that Florida Gateway's Columbia County is a good location for Logisticians to search for employment; the listings here are all for Logisticians at Target. Additionally, St. Johns County is a top area for Transportation Managers searching for employment.

Area Name	Transportation Managers	Storage and Dist. Managers	Logisticians	Total
Miami-Dade County	10	16	-	26
Duval County	6	7	9	22
Broward County	3	14	3	20
Orange County	3	8	6	17
Hillsborough County	4	5	4	13
Palm Beach County	3	7	-	10
Okaloosa County	-	-	-	10
Pinellas County	4	2	-	6
Brevard County	-	3	3	6
Bay County	-	-	6	6
Leon County	-	5	-	5
Escambia County	-	3	2	5
Lee County	2	-	2	4
Columbia County	-	-	4	4
St. Johns County	3	-	-	3
Polk County	2	1	-	3
Lake County	-	2	-	2

 Table 3.10. Top Florida Counties for Employment, by Job Openings

Source: Employ Florida Marketplace, Occupational Profiles

The final table on Florida employment relies on a survey from O\*NET Online, which broke down the education requirements within the three occupations from a sample of current professionals. As Table 3.11 shows, level of education varied based on the occupation: of the three occupations, Logisticians were the best-educated, with roughly 90 percent having obtained at least a bachelor's degree; Transportation Managers were close behind, with approximately 88 percent having obtained at least a

bachelor's degree; further, 62 percent of Storage and Distribution Managers have obtained at least a bachelor's degree. These figures indicate that the most successful applicants within these occupational areas will hold a Bachelor's degree.

Required Level of Education	Transportation Managers	Storage and Dist. Managers	Logisticians
First-Professional Degree	-	-	22%
Master's Degree	9%	-	3%
Post-Baccalaureate Certificate	9%	4%	-
Bachelor's Degree	70%	58%	65%
Associate's Degree	-	8%	11%
Some College Courses	4%	8%	-
Post-Secondary Certificate	9%	_	-
High School Diploma	-	21%	-

Table 3.11. Most Common Education Requirements, by Percentage

Source: Employ Florida Marketplace, based on O\*NET data (U.S. Department of Labor)

#### Local Employment Outlook

To reiterate, the local FGC Region is defined by the counties found in FAWI Workforce Regions 6-10 (refer to Table 1.1). Using data from FAWI, Table 3.12 displays the employment projections for Transportation, Storage, and Distribution Managers and Logisticians. This table indicates the fastest growing employment areas near FGC, as well as areas of little to no growth.

# Table 3.12. Local Employment Projections (2010 - 2018)Workforce Employment Eight-Year Change

worktorce	Empi	oyment .			
Region	2010	2018 (Est.)	Number	Percent	
Tran	sportation, Sto	orage, and Distri	ibution Mana	gers	
6	13	12	-1	-7.7%	
7	14	15	1	7.1%	
8	483	471	-12	-2.5%	
9	50	54	4	8.0%	
10	39	36	-3	-7.7%	
	Logisticians				
6		No employment reported			
7		No employme	nt reported		
8	603	741	138	22.9%	
9	48	60	12	25.0%	
10	37	47	10	27.0%	
Source: State of Florida, Agency for Workforce Innovation					

Region 9, which includes Bradford and Alachua counties, is projected to experience growth in both occupational areas over the next eight years. This region is expected to experience the fastest increase in Transportation, Storage, and Distribution Managers, and the second-fastest increase in Logisticians. A closer look at projections for Transportation, Storage, and Distribution Managers shows that regions 7 and 9 (the only regions to experience growth in this occupation during the eight-year period) are in the central part of the FGC region, and are closest to Florida Gateway College. Further, both regions surpassed projected statewide growth for Transportation, Storage, and Distribution Managers: the statewide eight-year projection was a growth rate of just 1.3 percent, but regions 7 and 9 are expected to grow by 7.1 and 8 percent, respectively. The Projected growth for Logisticians is significant; however, projections are only available for regions 8 through 10. Region 10 is expected to see the highest growth rate of Logisticians, yet the region with the highest anticipated numeric increase is region 8. Here, the state expects the number of Logistician jobs to increase by 138 over the eight-year period.

Table 3.13 provides more detail on these projections, showing average annual openings resulting from growth versus vacancy.

		2010 2010	/	
W/ a v1-fa v a a	Annual Average Ann		e Annual Op	enings
Workforce Region	Percent	From Growth	From Vacancy	Total
Tran	sportation, Sto	orage, and Dis	tribution Man	agers
6	-0.96%	0	0	0
7	0.89%	0	0	0
8	-0.31%	0	13	13
9	1.00%	1	1	2
10	-0.96%	0	1	1
	Logisticians			
6	No employment reported			
7	No employment reported			
8	2.86%	17	13	30
9	3.12%	2	1	3
10	3.38%	1	1	2

Table 3.13. Local Employment Projections – Annual Averages (2010 – 2018)

Source: State of Florida, Agency for Workforce Innovation

#### **Industrial Distribution Program Profiles**

As mentioned previously in this report, there is no institution in the State of Florida that is currently offering a program in Industrial Logistics; there is only one that is offering a bachelor's in Logistics and Materials Management, and this program has conferred only one degree. Due to the absence of clear competitor programs in the state, we present detailed profiles of two U.S. Industrial Distribution programs whose curricula adhere closely to the goals of Florida Gateway College in establishing a program in Industrial Logistics.

#### **Purdue University**

Purdue University offers a **Bachelor of Science in Industrial Distribution**, in which students "learn about inventory control, logistics, and industrial sales and purchasing systems."<sup>27</sup> The program advertises the advanced facilities in which students learn, the impressive placement rate of its graduates, and the range of careers available to them. The program is accredited by the National Association of Industrial Technology (NAIT).

#### Employment Outcomes

The Industrial Distribution website states that the program prepares students for a "wide variety of career paths...including supply chain management, technical sales, warehouse and branch management, logistics, customer service, and industrial purchasing."<sup>28</sup> The website goes on to state that Industrial Distribution graduates have "an excellent placement rate, with salaries averaging in the mid 40K's."<sup>29</sup> Graduates of the program have gone on to work for manufacturer, suppliers, distributors, logistics, and consulting firms, including Rockwell Automation, Avnet, Shelter Distribution, Celadon, Ferguson Enterprises, and Fastenal.<sup>30</sup>

#### Degree Requirements

Industrial Distribution majors follow a curriculum that consists primarily of Industrial Technology courses, though it includes an array of courses within the sciences and management as well.<sup>31</sup> The program's website notes that students must complete a total of **124 credit hours** for the major. The major's distribution of requirements is as follows:

http://www.admissions.purdue.edu/Majors\_Programs/majors\_details.php?MjrCd=indusdist

<sup>&</sup>lt;sup>27</sup> "Industrial Distribution." Purdue University, College of Technology.

<sup>&</sup>lt;sup>28</sup> "Introduction to the Industrial Distribution Major." Purdue University, College of Technology.

http://www.tech.purdue.edu/it/academics/undergraduate/curricula/id.cfm

<sup>&</sup>lt;sup>29</sup> Ibid.

<sup>&</sup>lt;sup>30</sup> Ibid.

<sup>&</sup>lt;sup>31</sup> Ibid.

Program Requirements: Industrial Distribution		
English, Communication and Humanities	17%	
Mathematics and Physical Sciences	15%	
Management and Productivity	17%	
Technical Courses	31%	
Electives (Technical and other)	20%	

# Table 4.1. Purdue University Course Requirements

Source: Purdue University, College of Technology

## Courses

Descriptions of selected courses required in the area of Industrial Technology for the bachelor's degree are provided in the table on the following page.

Table 4.2. Selected Industrial Technology Coursework at Purdue U	J <b>niversity</b>

Course Title	Description
Industrial Organization (IT 104)	A detailed survey of organizational structures, operational, financial, marketing, and accounting activities; duties of management, planning, control, personnel, safety, wages, policy, and human factors necessary for effective management.
Introduction to Lean Manufacturing (IT 214)	Lean manufacturing is a systematic approach to eliminating non-value added activities throughout a production system. Five basic principles characterize a lean production system: value definition, value stream mapping, flow optimization, pull production, and continuous improvement.
Industrial Supply Chain Management (IT 230)	A study of industrial supply chains. Emphasis is on in-plant shipping and receiving functions; modes of distribution; functions of, and services provided by supply chains. Emphasis is placed on how manufacturers, distributors and end users can provide value in the supply chain.
Industrial Safety (IT 281)	A course designed to develop understanding of, and insight into, the basic aspects of accident prevention and safety. Specific attention will be given to (1) the psychological aspects of accident prevention; (2) the principles of accident prevention; (3) the practical aspects of planning, implementing, and maintaining a safe environment; and (4) standards, current laws, and regulations.
Industrial Sales and Sales Management (IT 330)	Sales and sales management techniques for analyzing distribution challenges and providing solutions through effective communication; establishing credibility, effective questioning techniques, developing and presenting solutions, anticipating objections and gaining a commitment, plus techniques for building, developing and compensating an effective sales organization.
Purchasing, Inventory, and Warehouse Management (IT 332)	A course designed to develop understanding of types of warehouses, methods of organizing the warehouse environment, and determining efficient inventory control procedures. Purchasing of products, storage of inventory, placement of inventory and other internal logistics management topics will be explored. Real world projects conducted in lab environment will be utilized.

Course Title	Description
Introduction to Statistical Quality (IT 342)	Basic concepts of quality systems in business and manufacturing settings are presented. Basic statistical methods as applied to quality control, and an introduction to sampling plans are included.
Automatic Identification and Data Capture (IT 345)	The course studies systems used to automate data collection and identify physical objects. Keyless data entry, biometrics, electromagnetics, magnetics, optics, smart cards, and touch input will be utilized. The role of electronic data interchange (EDI) will be studied.
Total Productive Maintenance (IT 831)	This course is a study of the role and scope of total productive maintenance (TPM) in manufacturing. The three types of maintenance activities: corrective, preventive, predictive, and their associated quantitative techniques are studied. Reliability and queuing theory are discussed.
Financial Transactions in Distribution (IT 432)	The course is designed to familiarize students with various methods of pricing strategies, marketing concepts, and the terms and procedures involved. Special emphasis will be on computer applications and case study problems that help and enhance marketing of products and services.
Global Transportation and Logistics Management (IT 434)	A study of the various aspects of logistics in industrial systems and product support. The development, implementation, and control of physical transportation systems, product distribution, warehousing, and inventory policy models will be emphasized. The impact of logistics and transportation in the global environment will be discussed.
Distribution Management Policy (IT 435)	A course designed to build upon previous distribution-related courses with subjects related to managing a distribution enterprise. Modules in sales management, strategic planning, supply-chain logistics, purchasing, and the legalities of distribution manufacturer relationships will be combined with case studies to provide students with practice in making decisions and establishing policy from the manager's point of view.

Source: Purdue University, College of Technology<sup>32</sup>

<sup>&</sup>lt;sup>32</sup> "Industrial Technology Department Course Catalog." Purdue University, College of Technology. http://www.tech.purdue.edu/it/academics/coursepages.cfm

### University of Nebraska at Kearney

The University of Nebraska at Kearney offers a **Bachelor of Science in Industrial Distribution**. As advertised by the program website, UNK's program differs slightly from Purdue's program in that its mission—to "prepare people for careers as technical sales representatives and to become future business leaders"<sup>33</sup>—focuses more on sales than Purdue's program, which has more of a focus on management.

### Degree Requirements

The requirements for the B.S. in Industrial Distribution include:

- Five core Technology courses (13 credit hours)
- Ten core Distribution courses (30 credit hours)
- Six core Business courses (18 credit hours)
- Internship (12 credit hours)

#### Courses

Descriptions of selected Industrial Technology courses required for the program are provided in the table on the following page.

Course Title	Description
Introduction to Technology (ITEC 110)	Students will be introduced to career opportunities, and encouraged to explore career options. Once students are familiar with various degree programs they will develop long range plans for achieving their career goal(s).
Introduction to Industrial Distribution (ITEC 114)	Definition, history, types of, range of products, lines of distribution, function of manufacturers, distributors, operations, measures of effectiveness, employment and advancement opportunities.
Engineering Design Graphics (ITEC 120)	The course is designed as a beginning college level introduction to the use of design graphics and computer modeling for the purpose of solving technical problems.
Technology Today (ITEC 130)	This course presents a conceptional approach to computer aided communication systems typically applied in industrial environments. Emphasis will be placed on utilizing computer technology to integrate text and graphics in the preparation of documents and presentation materials.

Table 4.3. Selected	Industrial 7	<b>Fechnology</b>	Coursework at	<b>UN-Kearney</b>
---------------------	--------------	-------------------	---------------	-------------------

<sup>&</sup>lt;sup>33</sup> "Program Info." University of Nebraska at Kearney, College of Business and Technology. http://wp.unkid.org/program-info/program-info/

Course Title	Description
Training and Instructional Systems (ITEC 290)	Utilizing traditional, computer, and internet presentation technology, the course will address how to communicate effectively utilizing verbal and nonverbal communication techniques. Evaluating, listening, presenting, body language, and technology based presentation programs are a few of the main topics.

Source: University of Nebraska at Kearney, College of Business and Technology34

<sup>&</sup>lt;sup>34</sup> "TTEC Courses." Purdue University, University of Nebraska at Kearney, College of Business and Technology. http://aaunk.unk.edu/catalogs/current/crs/crsitec.asp#ITEC110

# Appendix

-	Table AI. Florida workforce Regions and Local Anniales						
Region	Counties	Employ Florida Local Affiliate					
1	Escambia, Santa Rosa	Workforce Escarosa					
2	Okaloosa, Walton	Workforce Development Board of Okaloosa and Walton Counties					
3	Calhoun, Holmes, Jackson, Liberty, Washington	Chipola Regional Workforce Planning Board					
4	Bay, Franklin, Gulf	Gulf Coast Workforce Development Board					
5	Gadsden, Leon, Wakulla	Workforce Plus					
6	Hamilton, Jefferson, Lafayette, Madison, Suwannee, Taylor	North Florida Workforce Development Board					
7	Columbia, Dixie, Gilchrist, Union	Florida Crown Workforce					
8	Baker, Clay, Duval, Nassau, Putnam, St. Johns	WorkSource					
9	Alachua, Bradford	FloridaWorks					
10	Citrus, Levy, Marion	CLM Workforce Connection					
11	Flagler, Volusia	Center for Business Excellence					
12	Lake, Orange, Osceola, Seminole, Sumter	Workforce Central Florida					
13	Brevard	Brevard Workforce					
14	Pinellas	WorkNet Pinellas					
15	Hillsborough	Tampa Bay WorkForce Alliance					
16	Hernando, Pasco	Pasco Hernando Workforce Board					
17	Polk	Polk County Workforce Development Board					
18	Manatee, Sarasota	Suncoast Workforce					

## Table A1. Florida Workforce Regions and Local Affiliates

Region	Counties	Employ Florida Local Affiliate	
19	DeSoto, Hardee, Highlands	Heartland Workforce	
20	Indian River, Martin, Okeechobee, St. Lucie	Workforce Solutions	
21	Palm Beach	Workforce Alliance	
22	Broward	Workforce One	
23	Miami-Dade, Monroe	South Florida Workforce Investment Board	
24	Charlotte, Collier, Glades, Hendry, Lee	Southwest Florida Works	

Source: State of Florida, Agency for Workforce Innovation

# **Project Evaluation Form**

Hanover Research is committed to providing a work product that meets or exceeds member expectations. In keeping with that goal, we would like to hear your opinions regarding our reports. Feedback is critically important and serves as the strongest mechanism by which we tailor our research to your organization. When you have had a chance to evaluate this report, please take a moment to fill out the following questionnaire.

http://www.hanoverresearch.com/evaluation/index.php

# <u>Note</u>

This brief was written to fulfill the specific request of an individual member of Hanover Research. As such, it may not satisfy the needs of all members. We encourage any and all members who have additional questions about this topic – or any other – to contact us.

## <u>Caveat</u>

The publisher and authors have used their best efforts in preparing this brief. The publisher and authors make no representations or warranties with respect to the accuracy or completeness of the contents of this brief and specifically disclaim any implied warranties of fitness for a particular purpose. There are no warranties which extend beyond the descriptions contained in this paragraph. No warranty may be created or extended by representatives of Hanover Research or its marketing materials. The accuracy and completeness of the information provided herein and the opinions stated herein are not guaranteed or warranted to produce any particular results, and the advice and strategies contained herein may not be suitable for every member. Neither the publisher nor the authors shall be liable for any loss of profit or any other commercial damages, including but not limited to special, incidental, consequential, or other damages. Moreover, Hanover Research is not engaged in rendering legal, accounting, or other professional services. Members requiring such services are advised to consult an appropriate professional.

Program:	Supply Chain Management (BAS)	CIP:	52.0203				
		Track:	1				
Offered At:	BC	Program Length:	120 Cr. Hrs.				
r	NEW 2/27/13						
LOWER LEVEL COURSES							
None	Cr. Hrs.						
None	none						
divis will s cons Adm requ degr degr area appr types B.A.S	ALL MAJORS: Students are strongly encouraged to ion electives that will enhance their general educatio upport their intended baccalaureate degree program ult with an academic advisor in their major degree a ission to Bachelor of Applied Science (B.A.S.) degree ires an Associate in Science (A.S.) or Associate in A ee in a related area. If a student has earned an Asso ee, or an A.S. degree, an A.A.S. degree, or its equiva , the student may be admitted on a case-by-case ba opriate academic administrator. Some majors may for s of requirements prior to admittance. Due to the var S. degree programs and concentrations, students ar insult with an academic advisor at the B.A.S degree.	on coursework and that n. Students should area. The programs usually Applied Science (A.A.S.) ociate in Arts (A.A.) valent in an unrelated asis with approval of the nave licensure or other riance in specialized re strongly encouraged					