

**Year-2 Regional Manufacturing Industry Focus Group
Tallahassee Community College – Capitol Center
April 11, 2008**

-Report of Findings-



Prepared for:

**Workforce Florida, Inc.
And
Agency for Workforce Innovation**

Prepared by:

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**YEAR-2 REGIONAL MANUFACTURING INDUSTRY FOCUS GROUP
TALLAHASSEE COMMUNITY COLLEGE – CAPITOL CENTER
-REPORT OF FINDINGS-**

EXECUTIVE SUMMARY

The regional manufacturing industry focus group held at Tallahassee Community College on April 11, 2008, provided the Employ Florida Banner Center for Manufacturing, a means to explore the current and future workforce training requirements for manufacturing companies in the North Central region of Florida.

In response to various (i.e., breakout group and open discussion) formats, the focus group participants provided vital data relevant to the future development of training curricula, which will address the participants' companies advanced level/emerging production workforce training needs. Highlighted findings among the data follow.

- **Manufacturing Trends** – These training curricula-related drivers include improved supply chain management, greening the industry, global marketing, ISO standards, automation, and miscellaneous issues related to the emerging workforce.
- **Occupations/Skills/Knowledge/Certifications** – These training curricula-related requirements include occupations such as production team leaders/supervisors, instrument/machine maintenance technicians, calibration technicians, quality auditors/inspectors, receiving technicians, shipping coordinators, inventory controllers, and material planners. All of the noted occupations' knowledge and skills requirements aligned directly with the technical competencies' descriptions of current industry-recognized certifications.

The participants still felt that there are issues related to a lack of employability skills for the entry-level workforce. They indicated that before an employee/applicant can be up-skilled in the technical areas they need to have these soft skills addressed.

- **Training Format** – These training curricula-related requirements include incorporating mentors as a supplement to training, flexible curricula with manageable components, a portfolio of formats/styles for specific employee populations, moving toward webinar/distance learning to accommodate geographic separated locations, and ensuring that more traditional training formats include hands-on activities and useful computer simulations.

PURPOSE OF THE FOCUS GROUP

The statewide focus groups initiative is a key element of an ongoing dialogue with the manufacturing community, where the dialogue provides an information exchange essential to addressing the significant and emerging training requirements for Florida's manufacturing workforce. The regional focus group conducted at Tallahassee Community College was specifically for companies located in the North Central region of Florida. Specific to the group activity is the gathering of opinions from the key stakeholders in the regions' manufacturing community (i.e., representatives from regional manufacturing companies, Tallahassee Community College, Workforce Florida, Enterprise Florida, and Florida's Great Northwest) pertaining to the industry's current, and future, workforce-training needs.

FOCUS GROUP TOPICS

The Employ Florida Banner Center for Manufacturing (hereafter called "Center") employed Peter Straw, Principal of Performance Development Strategies, and Executive Director of the Sarasota-Manatee Area Manufacturers Association, to facilitate the focus group. Mr. Straw used a portfolio of approaches to ensure the industry members, comprised of experts in a wide spectrum of manufacturing and manufacturing-related occupations, adequately addressed the topics. The format of the group meeting agenda (see Appendix 1 – Focus Group Agenda) served to elicit general and specific feedback on the topics of interest.

In collaboration with the principal investigator and manager of the Center, the focus group participants (see Appendix 2 – Attendee List) addressed the following topics during the discussion forums:

- **General Discussion on Trends** – The participants explored the current and future trends in the manufacturing industry, which will drive workforce training needs for advanced level/emerging production occupations.
- **Breakout Group Discussions** – The participants explored the current and future knowledge, skills, and industry-recognized certification(s) requirements for specific occupations in the following advanced level/emerging production workforce occupational categories:
 - Production and processes
 - Maintenance
 - Quality assurance
 - Logistics and inventory control
- **General Discussion on Training Format and Delivery** – The participants explored curricula structure and delivery requirements for advanced level/emerging production workforce occupations.

As in any focus group, the meeting at Tallahassee Community College served as a qualitative tool to gain insight and understanding into the nature of the workforce needs of the regions' manufacturing industry community. This type of research forum facilitated direct interaction with the group respondents and allowed opportunities for clarification, follow-up questioning, and probing responses. However, the focus group findings presented in this report are not survey results. Rather, the findings provide insight into manufacturing industry workforce-related issues under study, but are not for statistical inference.

This is the second of five focus group reports, corresponding to the Center’s plan to conduct five regional focus groups throughout the state. Mr. Straw will facilitate all five groups to ensure continuity. The Center will compile the aggregate results of the five focus group meetings, formulate them into an online survey, and offer the survey to the statewide manufacturing community for their response. This effort will serve to validate the aggregate findings of the five focus groups, after which a statistical analysis of the survey results will allow the Center to incorporate appropriate findings into training curricula – to be developed by the Center – for the manufacturing workforce in advanced level/emerging production jobs.

SUMMARY OF TRENDS GENERAL DISCUSSION FINDINGS

The following is a summary of the highlights that surfaced during Trends General Discussion:

What are the current and future trends in the manufacturing industry, which will drive workforce training needs for advanced level/emerging production occupations?

- Supply chain management and relationships (e.g., outsourcing, vendor systems, and RFID)
- Greening the industry (e.g., no-lead products when doing business with the European Union)
- Global marketing
- ISO standards
- Increasing costs for raw materials
- Lean
- Six Sigma
- Going paperless
- Automation (e.g., robotics)
- Workforce issues (e.g., cross-training, generational needs and differences, lack of traditional work ethic, language diversity, retirees wanting to remain in the workforce)

SUMMARY OF BREAKOUT GROUP DISCUSSION FINDINGS

During the Breakout Group Discussion, Mr. Straw assigned the group participants to four different tables representing four different occupational categories: Production and Processes, Maintenance, Quality Assurance, and Logistics and Inventory Control. Mr. Straw instructed them in the use of a custom-designed worksheet (see Appendix 3 – Breakout Group Worksheets) for their specific Breakout Group Category.

The worksheet guided the participants in their efforts to describe their workforce training needs for advanced level/emerging production occupations by:

- Identifying specific occupations in the assigned Breakout Group Category
- Identifying immediate and future technical needs for these occupations
- Distinguishing between specific skill sets and knowledge base requirements
- Prioritizing the skill sets and knowledge base needs
- Identifying industry-recognized certifications for these occupations

At the end of the initial Breakout Group discussions, the facilitator and recorder for each group rotated to the adjacent table (e.g., Production Processes rotated to Quality Assurance) to get those participants’ perspective about the new occupational category discussion. These rotations continued until the participants addressed all occupational categories. However, despite the

facilitator's best efforts, some of the groups were unable to complete the assigned tasks in the allotted time. The following is a summary of the highlights that surfaced during the Breakout Group discussions.

Breakout Group Category: Production and Processes							
Advanced Level/Emerging Occupation: Production Team Leader							
Certification(s) Needed for the Occupation: 1)Manufacturing Technologist 2)Certified Professional Management Technologist							
Skill Sets				Knowledge Base			
P	Immediate	P	Future	P	Immediate	P	Future
	Conflict management				Conflict management		
	Supervision/leadership				Problem solving		
	Blueprint reading				English to metric conversion		
	Hand tool usage						

Breakout Group Category: Production and Processes							
Advanced Level/Emerging Occupation: Production Supervisor							
Certification(s) Needed for the Occupation: 1)Six Sigma Green/Black Belt 2)B.S. Chemical Engineering 3)Licensed professional engineer							
Skill Sets				Knowledge Base			
P	Immediate	P	Future	P	Immediate	P	Future
	Time management		Data analysis (line/bar graph)		Continuous improvement		Six Sigma
	Computer literacy		Process engineering		Planning management		Lean manufacturing
	Operations management				Quality methods		Change management to address new workforce generation
	Scheduling						Mathematics
	Machine set-up						
	Quality inspection						
	Conflict management						
	Report writing/delivery						

Breakout Group Category: Maintenance							
Advanced Level/Emerging Occupation: Instrument Technician							
Certification(s) Needed for the Occupation:							
Skill Sets				Knowledge Base			
P	Immediate	P	Future	P	Immediate	P	Future
	Transducers		Networking (systems)		Electrical and building codes		Green technology
	PLC		HMS		Mathematics		Hardware
	Fundamental software				Electronics		Touch screen
	Programming (e.g., C++)				Environmental factors		Hand-held technology
	Planning and scheduling				Preventive maintenance		
					Failure mode		
					Troubleshooting		

Breakout Group Category: Maintenance							
Advanced Level/Emerging Occupation: Machine Maintenance Technician							
Certification(s) Needed for the Occupation: 1)Robotic Training Programs 2)CPT							
Skill Sets				Knowledge Base			
P	Immediate	P	Future	P	Immediate	P	Future
	Engineering		Programming computer to end product		CAD		Same items mentioned in immediate, but increased level
	Computers		Electronics		Physics fundamentals		IT
	Three-dimensional		Electrical		Mechanics		
	Materials				Maintenance fundamentals		

Breakout Group Category: Maintenance							
Advanced Level/Emerging Occupation: Facility Maintenance Technician							
Certification(s) Needed for the Occupation: CPT							
Skill Sets				Knowledge Base			
P	Immediate	P	Future	P	Immediate	P	Future
	Analytical		Mechanical		Troubleshooting		Engineering
	Hydraulics		Applied physics		Fiscal maintenance		Blueprint reading
	Mechanical		Software packages		Mathematical fundamentals		
					Critical thinking		

Breakout Group Category: Quality Assurance							
Advanced Level/Emerging Occupation: Calibration Technician							
Certification(s) Needed for the Occupation: 1)ASQ Calibration Technician 2)IEEE certifications 3)SME certifications 4)Valencia courses							
Skill Sets				Knowledge Base			
P	Immediate	P	Future	P	Immediate	P	Future
	Calibration				Products		
	Standards				RPMs		
	Surface plates				Mechanics		
	Powder screens				Electronics		
	Computers				Measurements		
	Mathematics				Data mining		
	GDNT				Sander		
	Machines						
	Measurements						
	Tally-ROM (machines)						

Breakout Group Category: Quality Assurance							
Advanced Level/Emerging Occupation: Engineer							
Certification(s) Needed for the Occupation: 1)B.S., Engineering 2)Licensed Professional Engineer 3)ASQ Quality Engineer							
Skill Sets				Knowledge Base			
P	Immediate	P	Future	P	Immediate	P	Future
	Root cause analysis		Computers		Electronics		
	Group dynamics		Mini-tab (data)		Mechanical		
	Conflict management		Electrical				
	SPC		Industrial				
	GMT		Mechanical				
	Metric system						
	Quality fundamentals						
	Mathematics						
	Data mining/analysis						
	GDNT						
	Preventive action						
	Statistics						

Breakout Group Category: Quality Assurance							
Advanced Level/Emerging Occupation: Auditor/Inspector							
Certification(s) Needed for the Occupation: 1)ASQ Quality Auditor 2)ASQ Quality Improvement							
Skill Sets				Knowledge Base			
P	Immediate	P	Future	P	Immediate	P	Future
	Sampling				SPC		Automation
	Write and interpret data				GDNT		Computers
	Product validity				Sampling		Charts and graphs
	SPC				Regression		
	GDNT				Lean		
	Mechanical				Metric system		
	Electronics						
	Metric system						
	Measurements						
	Statistical data						
	Mathematical fundamentals						

Breakout Group Category: Quality Assurance							
Advanced Level/Emerging Occupation: Mechanical/Chemical Technicians							
Certification(s) Needed for the Occupation: 1)NDT 2)ASQ Quality Technician 3)Soldering 4)Soldering 5)X-Ray							
Skill Sets				Knowledge Base			
P	Immediate	P	Future	P	Immediate	P	Future
	X-ray methods				PSI		Smaller castings
	Electronic parts and circuits				Computers		
	AOI						
	Welding						
	Data collection						
	Physical/material testing						
	Wet chemical testing						
	Data analysis						
	Radio graph testing						

Breakout Group Category: Logistics and Inventory Control							
Advanced Level/Emerging Occupation: Receiving Technician							
Certification(s) Needed for the Occupation: APICS certifications							
Skill Sets				Knowledge Base			
P	Immediate	P	Future	P	Immediate	P	Future
	Quality methods		Global		MRP fundamentals		
	Blueprint reading				Logistics fundamentals		
	Mathematics				Lean		
	IT fundamentals				IT fundamentals		
	Warehouse management						
	FIFO						
	Sample sizing						

Breakout Group Category: Logistics and Inventory Control							
Advanced Level/Emerging Occupation: Shipping Coordinator							
Certification(s) Needed for the Occupation: APICS certifications							
Skill Sets				Knowledge Base			
P	Immediate	P	Future	P	Immediate	P	Future
	IT		IT		MRP and related software		
	Retail		Forklift use		Computers		
	Blueprint reading				Lean		
	Communications				Transportation		
	Logistics						
	Forklift use						
	Warehouse						
	Legal (e.g., international)						

Breakout Group Category: Logistics and Inventory Control							
Advanced Level/Emerging Occupation: Inventory Controller							
Certification(s) Needed for the Occupation: APICS Certifications							
Skill Sets				Knowledge Base			
P	Immediate	P	Future	P	Immediate	P	Future
	IT		IT and software		MRP		
	MRP		New packaging concepts		IT/MOS		
	FIFO		Product handling		Mathematics		
	Kanban		MRP		Metric system		
	Cycle count				Business fundamentals		
	Materials movement						
	Bar coding						
	Forklift use						

Breakout Group Category: Logistics and Inventory Control							
Advanced Level/Emerging Occupation: Materials Planner							
Certification(s) Needed for the Occupation: APICS certifications							
Skill Sets				Knowledge Base			
P	Immediate	P	Future	P	Immediate	P	Future
	MRP and software		Global		Mathematics		
	ERP		Cultural		Communications		
	Production planning		TCO		Computers		
	MES-production control		Set-up		Lean		
	Product details		Accounting		MRP		
	MFG processes						
	Multi-level production						
	Internal/external inventory control						

Breakout Group Category: Logistics and Inventory Control							
Advanced Level/Emerging Occupation: Buyer/Purchaser							
Certification(s) Needed for the Occupation: APICS certifications							
Skill Sets				Knowledge Base			
P	Immediate	P	Future	P	Immediate	P	Future
	Purchasing		Global production		Commodities		
	Supply chain		Cultural awareness		Communications		
	Contract management		TCO		Mathematics and accounting		
	MRP		Set-up		Material science		
	Details		Legal		Lean		
	Computers		Contract management		MRP		
	Communications		Multi-lingual				

SUMMARY OF TRAINING FORMAT AND DELIVERY GENERAL DISCUSSION FINDINGS

What format and delivery methods work for you in training your advanced level/emerging production workforce?

- Mentoring as it applies to supplemental training
- Hands-on, laboratory, activities, and useful computer simulations
- In-house
- Off-site, after shift, for specific training
- Flexible with manageable components
- Instructor-led
- Different formats/styles, customized for specific employee populations/learners/languages
- Train-the-trainer, production supervisors/managers as cross-functional trainers, although some sites would require an external trainer
- One-half day after work
- No online, self-directed training
- Online (static versus interactive)
- Competency-based progression
- Skills assessment of trainers, gap analysis of company needs/workforce skills
- Webinar/distance learning/closed-circuit TV appropriate to several geographically separated locations
- On-site classes may conflict with proprietary issues

POST-FOCUS GROUP ASSESSMENT

With continuous improvement a primary objective for future focus groups, at the end of the focus group, the group facilitator distributed questionnaires (see Appendix 4 – How Did We Do?) to the participants. The facilitator and Center principal investigator and manager also conducted a closed session meeting where they performed a post-focus group assessment. They discussed, analyzed, and developed solutions to group process and material findings. The Center will implement the solutions during the remaining three Year-2 regional focus groups.

FLORIDA'S GREAT NORTHWEST

Al Wenstrand, the president of Florida's Great Northwest (FGNW), a multi-region economic development organization focusing on Florida's panhandle, provided the focus group participants an up-to-date analysis of some of the region's key industries. The presentation compared these industries and the region's competitive strengths with the industries' national and global trends. FGNW had contracted with SRI International to analyze Northwest Florida's target industries, revise the region's strategic plan, establish a recommended marketing strategy, and provide assistance for a two-year implementation period. FGNW had begun unveiling the results in recent weeks at a variety of roundtable meetings, board meetings and other appropriate venues. The Center's regional manufacturing focus group provided an excellent forum for a productive dialogue.



Year-2 Regional Manufacturing Industry Focus Group
Tallahassee Community College - Capitol Center
April 11, 2008
Report of Findings
Appendix 1

Focus Group Agenda

Meeting Agenda

- 8:30-9:00 a.m. Registration
- 9:00-9:10 a.m. Welcome and Introductions (Peter Straw, Focus Group Facilitator and Executive Director, Sarasota-Manatee Area Manufacturers Association)
- Beth Mann Pace, Manufacturing Technology, TCC EWD
 - Travis Yelverton, Existing Industry Dir., EDC of Tallahassee/Leon
 - Dr. Eric A. Roe, Principal Investigator, Employ Florida Banner Center for Manufacturing
- 9:10-9:20 a.m. Employ Florida Banner Center Introduction (Edward Allen, Manager, Employ Florida Banner Center for Manufacturing)
- 9:20-9:45 a.m. General Discussion: Manufacturing Industry Trends (Peter Straw)
- Trends – What are the current and future trends in the manufacturing industry, which will drive workforce training needs for advanced level/emerging production occupations
- 9:45-9:55 a.m. Break
- 9:55-10:05 a.m. Focus Group Orientation (Peter Straw)
- Introduction
 - Role, context, and flow of the Focus Group
- 10:05-10:50 a.m. Breakout Groups Round I
- Advanced Level/Emerging Production Occupations
 - Knowledge/Skills Sets
 - Certifications
- 10:50-11:35 a.m. Breakout Groups Round II
- 11:35 a.m.-11:55 p.m. General Discussion: Training Format (Peter Straw)
- Training Format – What formats for module development and delivery are of use to your company?
 - What are the barriers to online, self-directed training?
- 11:55 a.m.-12:15 p.m. Open Discussion and Meeting Recap
- 12:15-12:45 p.m. Industry Analysis (Florida's Great Northwest)



**Year-2 Regional Manufacturing Industry Focus Group
Tallahassee Community College - Capitol Center
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Appendix 2**

Attendance List

**Employ Florida Banner Center for Manufacturing
Year-2 Regional Manufacturing Focus Group
Tallahassee Community College-April 11, 2008
Attendance List**

Last Name	First Name	Company
Allen	Edward	Banner Center for Manufacturing
Baragona	Michelle	Tallahassee Community College
Bowman	David	Danfoss Turbocor
Burgess	Jayne	Workforce Florida
Coats	Stacey	Teligent EMS
Denton	David	Global CNC Solutions
DeVore	Fred	Lively Technical Center
Eldred	Chris	Teligent EMS
Fedd	Anthony	BASF
Frazier	Rick	Tallahassee Community College
Gill	Bob	GTO Inc.
Hansen	Thor	Danfoss Turbocor
Hembree	Sarah	Leon County Schools
Hutto	Patrick	St. Marks Powders
Koehler	Ken	Danfoss Turbocor
Ladikos	Nicholas	Enterprise Florida
Mann Pace	Beth	Tallahassee Community College
Moore	Kimberly	Workforce Plus
Paige	Brook	Tallahassee Community College
Palmer	Kara	EDC of Tallahassee/Leon
Pridgeon	Randy	Leon County Schools
Reeder	Dave	Precision Engine Products
Roe	Eric	Banner Center for Manufacturing
Stephens	Nancy	Manufacturers Association of Florida
Straw	Peter	Sarasota-Manatee Area Manufacturers Association
Underwood	Frances	Quincy Joist
Wenstrand	Al	Florida's Great Northwest
Yelverton	Travis	EDC of Tallahassee/Leon



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Appendix 3

Breakout Group Worksheets



**Year-2 Regional Manufacturing Industry Focus Group
Tallahassee Community College - Capitol Center
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Appendix 4**

Focus Group Assessment



Manufacturing Focus Group *How Did We Do?*

Please assist us in improving the quality of our future focus groups and service to the manufacturing community by responding to the following questions.

Focus Group Location/Date:
Tallahassee Community College
April 11, 2008

What is the size of your company?

Small: 5

Medium: 4

Large: 6

How many employees do you have in your company?

1-10: 2

11-25: 2

26-100: 3

101-500: 5

>500: 2

What worked at today's focus group

- Format with revolving breakout groups very good
- Valuable input from manufacturers
- Breakout group discussion very good at getting the group interested and kept on task
- The ability to engage multiple stakeholder groups beyond the private sector
- Breakout groups, with specific topics, were effective in creating dialogue
- Breakout groups allowed everyone to gain a different perspective on the issues that face each organization every day
- A willingness for open communication
- Asked what can be done to improve
- General format was very good
- The concept of the breakout groups that discussed each of the four topics
- Learning new concepts of manufacturing such as "quality"
- Interaction with industry and educational community
- Diversity of attendees and perspectives
- Facilitation
- Conversation and interaction
- Good focus on future needs
- Good facilitation
- Well prepared
- Discussions and interaction with various representatives and industry
- Discussions were kept moving and on task
- The breakout groups discussion revealed what is needed to improve our workforce for the future
-

What did not work at today's focus group?

- Tallahassee does not have a large manufacturing presence, but the more manufacturers, the better
- Important to acknowledge other factors that may impact the overall success of Banner Centers



Manufacturing Focus Group *How Did We Do?*

Please assist us in improving the quality of our future focus groups and service to the manufacturing community by responding to the following questions.

Focus Group Location/Date:
Tallahassee Community College
April 11, 2008

- Not enough manufacturers
- No specific for discussion at each table allowed for lost time in such short meetings
- The lack of a copy of each focus objectives
- Small number of manufacturers present limited discussion, especially when the one permanently assigned to the table had to leave the meeting early
- Lack of information prior to meeting, meant not knowing what to bring to aid the process
- Lack of direction on breakout group exercise
- N/A
- Explanation of expected outcomes not clear

How could we improve the focus group?

- Do not need to improve
- Focus group preparation, knowing what to expect, exact format of meeting discussion
- Make sure there is a minimum amount of manufacturers at each table
- Longer breakout group sessions covering more subjects
- Find a quicker way to jump start breakout group dialogue
- Provide more information pertaining to what desired results of meeting are. This will allow for more preparation
- Make sure you follow-up and work to implement programs
- Limit the leading direction on questions
- Simpler directions, since some people were stumbling over the breakout group directions
- Find a way to keep the subject matter expert from doing most of the talking in the breakout group
- More manufacturers
- Include municipal and elected officials and lay people
- Describe how we get to the next level
- Provide a clearer explanation of the meeting's expected outcomes
- Need to contain more on what is needed and the background of companies in the area

What did I learn at today's focus group?

- Manufacturers' needs/challenges/barriers and possible solutions
- MSSC
- The certification opportunities and shared concerns relative to workforce development
- Positions in today's manufacturing industry
- A good foundation is being built
- For a non-manufacturer, I really learned a lot plus received a lot of confirmation of the direction my organization is headed in supporting workforce development
- Quality engineering and much more
- Better understanding of what might be available in educational institution



Manufacturing Focus Group
How Did We Do?

Please assist us in improving the quality of our future focus groups and service to the manufacturing community by responding to the following questions.

Focus Group Location/Date:
Tallahassee Community College
April 11, 2008

- About the Banner Center and its function
- That Tallahassee is moving “slowly” in the right direction
- That there is an MSSC program in the works
- Specific training is in dire need
- We need to train more on the basics that need to start in the school



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Appendix 5**

Focus Group Announcements



CAPITAL REGION MANUFACTURERS

To: All CRM Participants

Date: March 24, 2008

From: Anthony L. Fedd, Chair
Rob Cowan, Vice-Chair

Subject: Focus Group SAVE THE DATE – April 11

Capital Region Manufacturers (CRM), in collaboration with Tallahassee Community College, Employ Florida BANNER Center, Workforce Florida, Inc., and FLATE, is organizing a manufacturing focus group to discuss critical occupational and certification needs for the industry now and in the near future. Participation from all operational positions is requested (e.g., production supervisors/managers, operations directors, and plant managers).

**SAVE THE DATE – APRIL 11, 2008, TCC AT THE CAPITOL
Room 111, 8:30 a.m. to 12:30 p.m. (working lunch provided, RSVP needed)**

Meeting format includes:

- General Discussions seeking information about:
 - current and future manufacturing industry trends driving workforce training needs for advanced level/emerging production/production-related occupations
 - specific occupations in need
 - the value of industry-recognized certifications that align with the related occupations
 - specific certifications important to the manufacturers
 - training curriculum format for the occupations and the certifications they align with
- Breakout Group sessions seeking information about specific advanced level/emerging production/production-related manufacturing occupations

RSVP requested by April 4 to kpalmer@taledc.com. Please find full Agenda information attached.





CAPITAL REGION MANUFACTURERS

To: All CRM Participants
Date: March 31, 2008
From: Anthony L. Fedd, Chair
Rob Cowan, Vice-Chair
Subject: Regional Manufacturing Focus Group SAVE THE DATE – April 11

TAKE ADVANTAGE OF THIS OPPORTUNITY TO HELP SOLVE YOUR WORKFORCE TRAINING NEEDS!

Manufacturers across the nation have consistently expressed their need for solutions on how to fill the skills-gap in their production workforce, and to do so with the greatest return on investment. The Employ Florida Banner Center for Manufacturing, supported by Workforce Florida, has stepped forward with cost-effective solutions.

In 2007, the Banner Center, with help from Florida's manufacturers, created training programs for your entry-level and incumbent production workforce that not only target portable production knowledge/skills development but also align with the Florida's unified educational system for manufacturing by preparing program graduates to meet nationally and industry-recognized standards and obtain the Manufacturing Skill Standards Council (MSSC) Certified Production Technician (CPT) certification.

Now the Banner Center is taking the next step to create training programs for your workforce in advanced level/emerging production jobs. The Banner Center, in league with the Capitol Region Manufacturers (CRM), Tallahassee Community College, and the Economic Development Council of Tallahassee/Leon County invite you to participate in a regional manufacturing focus group that will provide you a platform to express, first hand, your critical workforce training needs.

PUT THE REGIONAL MANUFACTURING FOCUS GROUP DATE ON YOUR CALENDAR
APRIL 11, 2008 – TCC AT THE CAPITOL Room 111 – 8:30 a.m. to 12:30 p.m.
(Working lunch provided – RSVP needed)

The region's operations directors, logistics managers, production managers, and HR directors are welcomed to take part in this dynamic, hands-on forum, which will help shape the future of your workforce and the competitive advantage that your companies need to thrive in the global marketplace.

RSVP requested by April 4 to kpalmer@taledc.com. Please find full Focus Group Agenda information attached.



To: All Northwest Florida Manufacturers and Workforce Advocates

Date: March 31, 2008

From: Dr. Eric A. Roe, Principal Investigator – Employ Florida Banner Center for Manufacturing
Edward Allen, Manager – Employ Florida Banner Center for Manufacturing

Subject: Regional Manufacturing Focus Group – SAVE THE DATE – April 11

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Manufacturers across the nation have consistently expressed their need for solutions on how to fill the skills-gap in their production workforce, and to do so with the greatest return on investment. The Employ Florida Banner Center for Manufacturing, supported by Workforce Florida, has stepped forward with cost-effective solutions.

In 2007, the Banner Center, with help from Florida's manufacturers, created training programs for your entry-level and incumbent production workforce that not only target portable production knowledge/skills development but also align with the Florida's unified educational system for manufacturing by preparing program graduates to meet nationally and industry-recognized standards and obtain the Manufacturing Skill Standards Council (MSSC) Certified Production Technician (CPT) certification.

Now the Banner Center is taking the next step to create training programs for your workforce in advanced level/emerging production jobs. The Banner Center, in league with the Capitol Region Manufacturers (CRM), Tallahassee Community College, and the Economic Development Council of Tallahassee/Leon County invite you to participate in a regional manufacturing focus group that will provide you a platform to express, first hand, your critical workforce training needs.

PUT THE REGIONAL MANUFACTURING FOCUS GROUP DATE ON YOUR CALENDAR
APRIL 11, 2008 – TCC AT THE CAPITOL Room 111 – 8:30 a.m. to 12:30 p.m.
(Working lunch provided – RSVP needed)

The region's operations directors, logistics managers, production managers, and HR directors are welcomed to take part in this dynamic, hands-on forum, which will help shape the future of your workforce and the competitive advantage that your companies need to thrive in the global marketplace.

RSVP requested by April 4 to kpalmer@taledc.com. Please find full Focus Group Agenda information attached.



**Year-2 Regional Manufacturing Industry Focus Group
Tallahassee Community College - Capitol Center
April 11, 2008
Report of Findings
Appendix 6**

Introduction to the Banner Center Slide Show

EMPLOY FLORIDA
BANNER Center
Manufacturing

Year-2 Manufacturing Industry Focus Group
Tallahassee Community College – Capitol Center
April 11, 2008



EMPLOY FLORIDA
BANNER Center
Manufacturing

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Tallahassee Community College – Capitol Center
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Employ Florida Banner Center for Manufacturing

- About the Center
- Mission
- Long-term Initiatives
- Year-2 Activities
- Training Curriculum Development and Focus Group Role
- Conclusion

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Year-2 Manufacturing Industry Focus Group
Tallahassee Community College – Capitol Center
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About the Center

- Governor Bush's Strategic Roadmap for Florida's Future
 - Part of a \$6.2 million strategic initiative of the state workforce system to meet the employee-training needs of industries that help diversify the state's economy
- Public-private consortium strengthens workforce system
 - Community colleges
 - Regional manufacturers associations/workforce boards
 - Economic development organizations
 - Manufacturers
- Received a Year-1 (2006-2007) \$500,000 contract award from Workforce Florida
- Year-2 (2007-2008) contract at \$200,000

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Mission

- Provide curriculum and training, as well as certification resources and support for the continuation and expansion of Florida's manufacturing industries

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Long-term Initiatives

- Train Florida's high-performance manufacturing workforce
- Develop training curriculum/curriculum standards
- Formalize industry skill standards and workforce credentialing
- Conduct educational research
- Provide technical support to the manufacturing industry cluster

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Year-2 Activities

- Conduct industry-based focus groups
- Develop new industry-driven training curricula
- Serve as a focal point for manufacturing training
- Disseminate education and training information
- Assist Florida's community with manufacturing-related education and training programs and information

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Year 2-Activities (Cont'd)

- Support school districts implementing CAPE Act
 - Improve secondary school performance by providing rigorous and relevant career-themed curriculum that articulates to post-secondary level coursework and leads to industry certifications
- Beta test and deploy "Manufacturing Essentials" training curriculum
- Promote industry certification awareness

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Employ Florida Banner Center for Manufacturing – Industry Certifications –

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MSSC Certification

- Nationally recognized certification program for skilled "production technicians"
- Certification awarded to students and employees who pass testing in four areas:
 - Production and Processes
 - Quality Assurance
 - Maintenance Awareness
 - Safety
- Portable skills applicable to all sectors of manufacturing
- Center's training products
 - Manufacturing Fundamentals (entry-level technician)
 - Manufacturing Essentials (incumbent technician)

Academic

- Math
- Science
- Reading
- Writing
- Listening
- Computer Technologies
- Gathering & Analyzing Information

Workplace

- Problem Solving
- Decision Making
- Planning & Organization
- Social Skills
- Adaptability
- Teamwork
- Leadership

Technical

- Production
- Process Development & Design
- Maintenance Installation & Repair
- Logistics and Inventory Control
- Quality Assurance
- Health, Safety and Environment

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MSSC Assessment Centers in States Representing 86% of Manufacturing Jobs

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MSSC Assessment Centers in Florida

- Broward Community College
- Central Florida Community College
- Florida Community College at Jacksonville
- Hillsborough Community College at Brandon
- Manatee Community College
- Manatee Technical Institute
- Mid Florida Tech
- Pasco-Hernando Community College
- Pinellas Technical Education Center
- Polk Community College
- Tallahassee Community College
- Treasure Coast High School

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Training Curriculum Development and Focus Group Role

```

    graph TD
      A[Determine the Need] --> B[Planning]
      B --> C[Content Development]
      C --> D[Beta Test and Revision]
      D --> E[Deploy]
  
```

- Determine the Need
 - Program purpose
 - Audience
 - Industry trends
 - Occupations
 - Skills and knowledge needs
 - Certification needs
 - Training format
- Planning and Content Development
 - Determine program outcomes, content areas, instructional strategies
 - Center and SMEs develop content, instructional strategies and materials
 - Construct a beta release

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Conclusion

- Center provides high-tech training programs and support for the continuation and expansion of Florida's manufacturing industries
- Advanced level/emerging workforce training curricula aligned with industry-recognized certifications
- Focus group participation vital to addressing manufacturing industry needs

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EMPLOY FLORIDA
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Making Florida's Workforce Stronger

Contacts:
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Edward Allen – Manager – 813.259.6574 – eallen6@hccfl.edu
www.banner-mfg.org



**Year-2 Regional Manufacturing Industry Focus Group
Tallahassee Community College - Capitol Center
April 11, 2008
Report of Findings
Appendix 7**

Focus Group Facilitator Summary

FACILITATOR SUMMARY

Employ Florida Banner Center for Manufacturing, Regional Manufacturing Industry Focus Group
Tallahassee, FL – 4/11/2008

The focus group participants consisted of representatives from the region's educational, workforce/economic development, and manufacturing community.

During the first part of the meeting, presenting the background and history of Banner Center for Manufacturing Education created the context for further conversation. Many of the participants were heretofore unaware of the Banner Center's work. There was enthusiasm for any training program for entry-level workers.

The Future Trends conversation kept drifting toward complaints about status of current workforce. It proved difficult for employers to have a conversation for a possible future when they feel that their immediate needs are not being met. Assurances that Ready to Work programs are addressing the shortcomings of potential new hires coupled with anecdotal information on the success of the Banner Center curriculum in other regions got the group back on track.

Four separate breakout groups were assigned a subject matter expert and a recorder. The assignment was to prioritize the occupations in each of four disciplines that would result from the trends we had discussed earlier. The top occupation was to be fleshed out in detail; including any industry-recognized certifications or formal training that would provide support. After the top priority occupation was completed, the group was to move on to second and third priority occupations. Subject matter experts had been given instructions before hand, as had recorders; but the conversations broke down to soft skills and work ethics. It appears that, as facilitator, I must walk the breakout groups through the process before they begin. Future breakout groups will be instructed to evaluate progression from Operator to Technician to Engineer. This will hopefully refocus on technical skills for which the Banner Center is equipped to design curriculum.

A focus group wrap-up conversation, on delivery systems for training, opened several new areas/models. The group was cognizant of the diversity of today's workforce and mentioned several times that different age groups learn best under different systems.

Submitted 4/16/08

Peter D. Straw
Performance Development Strategies, LLC



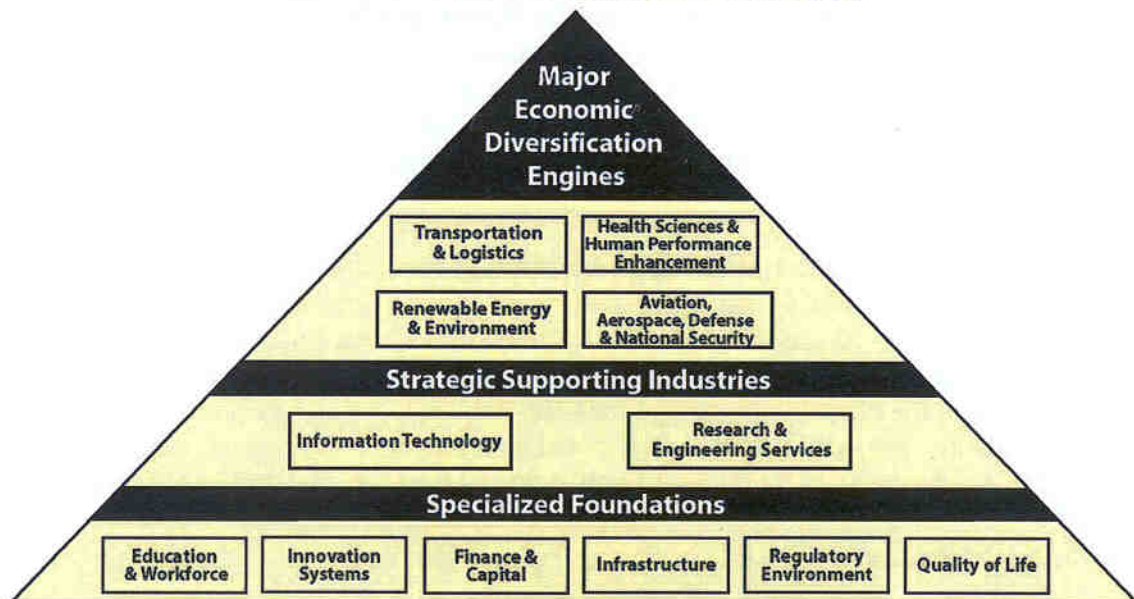
**Year-2 Regional Manufacturing Industry Focus Group
Tallahassee Community College - Capitol Center
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Appendix 8**

Florida's Great Northwest Report

Capital Region Manufacturers April 11, 2008

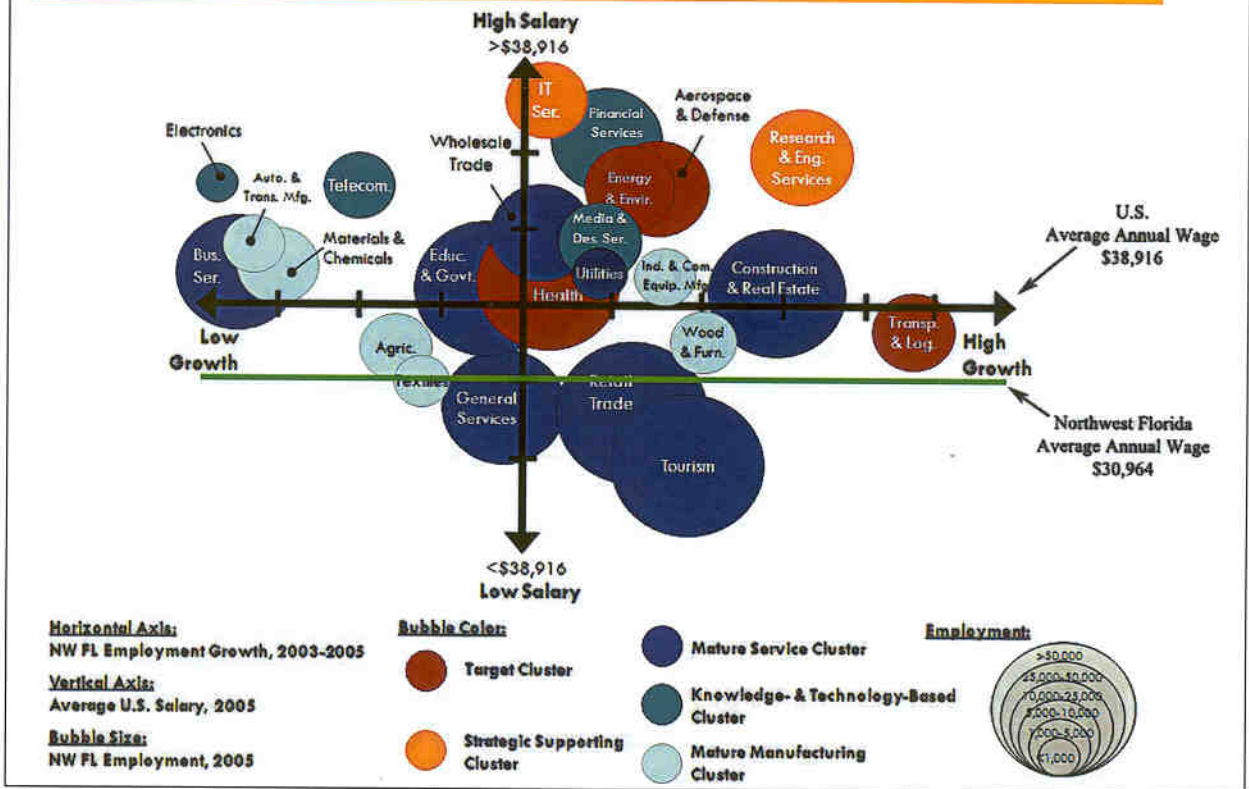
Florida's Great Northwest, along with its post-secondary education, workforce development, and economic development partners, is actively working to create high-wage, high-skill jobs for Northwest Florida citizens by diversifying the economic base and embracing a retention and recruitment strategy focused on targeting those industry sectors that offer future growth opportunities, transition the workforce into a knowledge-based economy, and provide jobs with a wage structure above the national average. SRI International, an independent, non-profit research institution, is nearing completion of a series of studies for Florida's Great Northwest that analyzes those business concentrations (clusters) that will be the future drivers of a diversified, sustainable economy. The initial findings from SRI International's research have identified the industry sectors of Aviation, Aerospace, Defense & National Security; Health Sciences & Human Performance Enhancement; Renewable Energy & Environment; and Transportation & Logistics Services as those targets best suited for Northwest Florida with the Information Technology and Research & Engineering clusters providing critical support services across all four target industry sectors.

Northwest Florida's Key Industries for Developing a Diversified and Sustainable Economy



The six target industries were selected by analyzing 25 business clusters for industry concentration, average annual wage, projected growth, and strong synergies with Northwest Florida's existing businesses as well as the region's national and international competitive advantages. The following chart summarizes SRI's analysis:

Overview of Northwest Florida's Industry Clusters



The horizontal axis represents growth projections. The vertical axis represents average annual wage. The size of the bubble represents the current employment in Northwest Florida. Ideally, the best target industries are those located in the upper-right quadrant that have the largest existing employment base, highest average annual wage, and are projected for future growth. These sectors offer moderate-to-strong growth as well as higher-than-average salary levels, and have a strong critical mass of employment in the region.

The region's four target clusters (identified in the chart by the red bubbles) exhibit the desired characteristics as well as synergies with Florida's tax and business climate, Northwest Florida's physical and human infrastructure, its existing business structure, and the targets' role in regional economic development. The two strategic support clusters (identified in the chart by the orange bubbles) exhibit those same characteristics and, more importantly, are critical to the growth and development of the target clusters. Short-term, the development of the IT and Engineering clusters is vital to the region's success and should command the focus of the region's economic development, workforce and educational institutions.

Strategic Support Industries

The two strategic support industries of Information Technology and Research & Engineering Services transcend all four of Northwest Florida's target industries, fit well with the Florida business, regulatory, and tax climate, and have a large existing presence in the region. In Northwest Florida, the two strategic support clusters account for over 12,000 employees and over 800 businesses. However, similar to the national profiles, in Northwest Florida these businesses are typically small operations with an average employment of 14. Interviews with Northwest Florida businesses have confirmed that the regional business profiles mirror the national profiles.

Typical Engineering Firm Job Categories

Standard Occupational Classification Category	Number of Employees	% of Employees
Engineering	7	41%
Aerospace Engineer	1	
Electrical Engineer	1	
Mechanical Engineer	1	
Civil Engineer	1	
Aerospace Engineering and Operations Technician	1	
Other Technician (Electrical, Electronics, Mechanical, etc.)	1	
Mechanical Drafter	1	
Office and Administrative Support	2	12%
Life/Physical Science	2	12%
Environmental Scientist	1	
Chemical Technician	1	
Management	2	12%
Computer and Mathematical Science	2	12%
Computer Software Engineer	1	
Computer Systems Analyst	1	
Business and Financial Operations	1	5%
Sales	1	5%
Other		1%
TOTAL (National Average)	17 employees	100%
Northwest Florida Regional Average	14-15 employees	

Typical IT Firm Job Categories

Standard Occupational Classification Category	Number of Employees	% of Employees
Computer and Mathematical Science	5	55%
Computer Software Engineer	2	
Computer Programmer	1	
Computer Systems Analyst	1	
Computer Support Specialist	1	
Office and Administrative Support	1	11%
Sales	1	11%
Management	1	11%
Business and Financial Operations	1	11%
Other		1%
TOTAL	9 employees	100%
Northwest Florida Regional Average	13-14 employees	

A Closer Look at the Aviation, Aerospace, Defense and National Security Cluster in Northwest Florida

Florida's Great Northwest has opted to use the Aviation, Aerospace, Defense, and National Security cluster as an example of the breadth of the four target clusters. The SRI analysis on the Aviation, Aerospace, Defense and National Security provides the basis for the balance of the material in this document.

Synergies between the region's seven military bases, research institutions, commercial and general aviation as well as an existing cluster of over 1,900 business establishments give Northwest Florida significant standing in the Aviation, Aerospace, Defense, and National Security Industry. Using the North American Industry Classification System (NAICS) codes, SRI International identified 13 NAICS-coded aerospace and defense sectors that make up the 35,476-41,362 workers employed in this industry, approximately 6.9-8.0% of the region's employment.

Aerospace and Defense Cluster Detailed Statistics -2004 Northwest Florida (16 counties)

Sector	Total Establishments	Total Employment	Average Annual Pay in Florida
Aerospace and Transportation Equipment Manufacturing	8	731-1,548	\$55,742
Air Transportation and Support Activities	63	1,314-1,888	\$48,047
Chemicals and Fuel Manufacturing and Distribution	18	294-677	\$45,536
Computers, Electronics and Electrical Equipment Manufacturing	27	2,191-3,171	\$57,027
Consulting Services	416	2,179-2,854	\$49,734
Engineering, Testing, Research and Development, Industrial Design	408	5,773-6,173	\$56,699
Fabricated Metals and Machinery Manufacturing	58	635-1,252	\$41,980
Facilities and Business Support Services	271	6,271-6,783	\$23,160
Flight Training	4	13-31	\$33,830
IT, Systems Integration, Network Solutions, and Telecommunications	431	5,436-6,012	\$63,986
Machinery and Equipment Wholesalers	81	499-555	\$43,680
Maintenance, Repair and Overhaul	94	562-840	\$35,084
National Security	21	9,578	\$59,174
Northwest Florida Aerospace and Defense Cluster Total	1,900	35,476-41,362	\$48,806
Northwest FL Region – All Industries	32,773	524,681	\$33,042

The Aerospace & Defense Cluster represents 6.9 percent to 8.0 percent of total employment and 5.8 percent of total establishments in Northwest Florida.

Delving further into the Aviation, Aerospace, Defense and National Security cluster's 13 sectors, SRI has compiled a list of the prominent occupations and their respective minimum educational requirements. The chart below demonstrates that many of the skills requirements cover a broad spectrum of educational attainment, from certification through post-secondary degrees.

Aviation, Aerospace & Defense and National Security Prominent Occupations, Wages and Minimum Educational Requirements

Occupation Code	Prominent Occupations	National Median Hourly Wage	Tallahassee MSA Median Hourly Wage	Minimum Educational Requirement
<i>Aerospace and Transportation Equipment Manufacturing</i>				
17-2011	Aerospace Engineers	\$39.91	n/a	Bachelor's Degree
49-3011	Aircraft Mechanics and Service Technicians	\$21.58	\$19.38	Vocational School
51-2011	Aircraft Structure, Surfaces, Rigging and Systems Assemblers	\$22.18	n/a	High School Diploma
54-4041	Machinist	\$18.46	\$10.59	Vocational School
51-9061	Inspectors, Testers, Sorters, Samplers and Weighers	\$20.62	\$14.67	High School Diploma
15-1031	Computer Software Engineers	\$40.71	\$31.50	Bachelor's Degree
<i>Air Transportation and Support Activities</i>				
53-2011	Airline Pilots, Copilots and Flight Engineers	\$70.14	n/a	High School Diploma
49-3011	Aircraft Mechanics and Service Technicians	\$26.81	\$19.38	Vocational School
39-6031	Flight Attendants	\$27.02	n/a	High School Diploma
43-4181	Reservation and Transportation Ticket Agenda and Travel Clerks	\$15.76	\$13.80	High School Diploma
43-5011	Cargo and Freight Agent	\$17.84	n/a	High School Diploma
53-7062	Laborers and Freight, Stock and Material Movers	\$9.91	\$9.04	High School Diploma
<i>Chemicals and Fuel Manufacturing and Distribution</i>				
17-2041	Chemical Engineers	\$39.38	n/a	Bachelor's Degree
19-2031	Chemists	\$29.97	\$19.25	Bachelor's Degree
19-4031	Chemical Technicians	\$21.89	n/a	Associate's Degree
49-9041	Industrial Machinery Mechanics	\$22.82	n/a	Vocational School
49-9042	Maintenance & Repair Workers, General	\$21.14	\$14.91	High School Diploma
51-1011	First Line Supervisors/Managers of Production and Operating Workers	\$30.84	\$12.66	Bachelor's Degree
53-3032	Truck Drivers, Heavy and Tractor-Trailer	\$16.37	\$11.53	High School Diploma

Occupations, Wages and Minimum Educational Requirements (continued)

Occupation Code	Prominent Occupations	National Median Hourly Wage	Tallahassee MSA Median Hourly Wage	Minimum Educational Requirement
<i>Computers, Electronics, and Electrical Equipment Manufacturing</i>				
15-1032	Computer Software Engineers	\$43.33	\$36.70	Bachelor's Degree
17-2071	Electrical Engineers	\$38.54	\$33.94	Bachelor's Degree
17-2112	Industrial Engineers	\$35.86	\$34.26	Bachelor's Degree
51-1011	First Line Supervisors/Managers of Production and Operating Workers	\$25.23	\$22.14	Bachelor's Degree
51-2022	Electrical and Electronic Equipment Assemblers	\$12.85	n/a	High School Diploma
51-2092	Team Assemblers	\$11.73	\$9.58	High School Diploma
51-9061	Inspectors, Testers, Sorters, Samplers and Weighers	\$14.32	\$15.85	High School Diploma
<i>Consulting Services</i>				
13-1111	Management Analysts	\$36.83	\$26.67	Bachelor's Degree
41-3099	Sales Representatives, Services	\$25.86	\$17.51	Bachelor's Degree
43-6011	Executive Secretaries and Administrative Assistants	\$19.41	\$16.29	High School Diploma
43-9061	Office Clerks	\$11.14	\$9.97	High School Diploma
<i>Engineering, Testing, Research and Development, Industrial Design</i>				
17-2011	Aerospace Engineer	\$43.32	n/a	Bachelor's Degree
17-2071	Electrical Engineer	\$36.81	\$33.94	Bachelor's Degree
17-2141	Mechanical Engineer	\$38.05	\$41.93	Bachelor's Degree
17-2051	Civil Engineer	\$33.45	\$28.31	Bachelor's Degree
17-3021	Aerospace Engineering and Operations Technician	\$26.89	n/a	Associate's Degree
17-3023	Electrical and Electronic Engineering Technician	\$23.23	\$25.20	Associate's Degree
17-3013	Mechanical Drafter	\$21.47	\$21.84	Vocational School
19-2041	Environmental Scientist	\$26.96	\$20.65	Bachelor's Degree
19-4031	Chemical Technician	\$14.51	\$18.63	Associate's Degree
15-1032	Computer Software Engineer	\$46.74	\$36.70	Bachelor's Degree
15-1051	Computer Systems Analyst	\$40.78	\$25.37	Bachelor's Degree
<i>Fabricated Metals and Machinery Manufacturing</i>				
17-2141	Mechanical Engineer	\$30.38	\$41.93	Bachelor's Degree
51-1011	First-Line Supervisor	\$23.01	\$22.14	Bachelor's Degree
51-4011	Computer-Controlled Machine Tool Operator	\$15.02	n/a	Vocational School
51-4031	Cutting, Punching and Press Machine Setter	\$12.74	n/a	High School Diploma
49-9042	Maintenance and Repair Worker	\$17.52	\$12.91	High School Diploma
51-4041	Machinist	\$16.32	\$16.73	Vocational School

Occupations, Wages and Minimum Educational Requirements (continued)

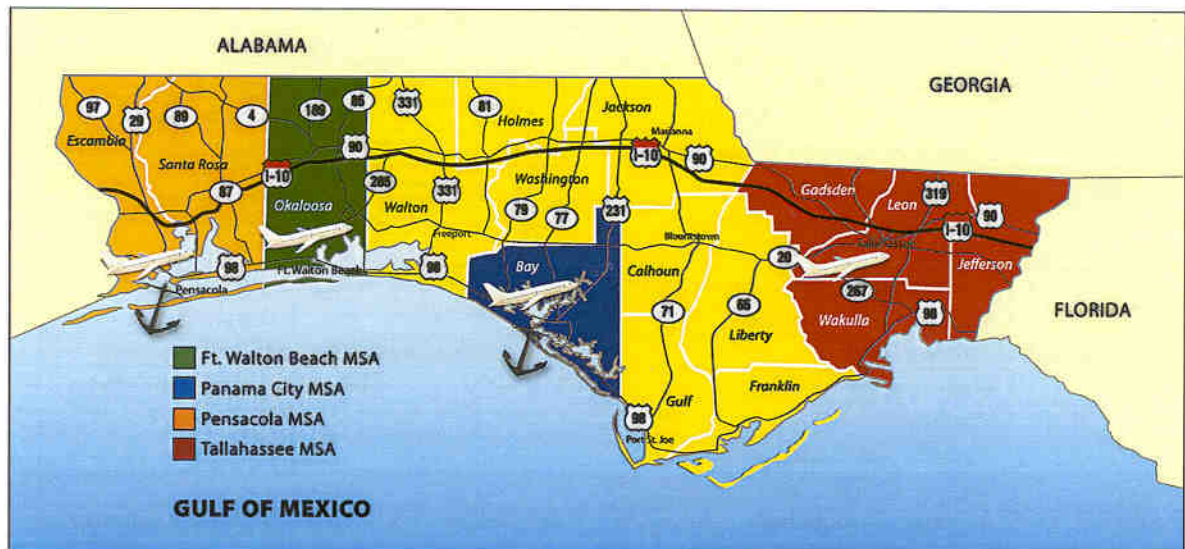
Occupation Code	Prominent Occupations	National Median Hourly Wage	Tallahassee MSA Median Hourly Wage	Minimum Educational Requirement
<i>Fabricated Metals and Machinery Manufacturing (continued)</i>				
51-4121	Welders, Cutters, Solderers and Brazers	\$15.26	\$15.14	Vocational School
51-2092	Team Assembler	\$12.79	\$9.58	High School Diploma
51-9198	Helper-Production Worker	\$10.23	\$8.23	High School Diploma
<i>Facilities and Business Support Services</i>				
33-9032	Security Guard	\$9.78	\$8.47	High School Diploma
37-2011	Janitor and Cleaner	\$8.59	\$10.13	High School Diploma
43-4051	Customer Service Representative	\$11.38	\$10.77	High School Diploma
53-7062	Laborer and Freight, Stock and Material Mover, Hand	\$8.76	\$8.53	High School Diploma
<i>Flight Training</i>				
n/a	Flight Instructor	\$14.50	n/a	High School Diploma
<i>Information Technology, Systems Integration, Network Solutions and Telecommunications</i>				
15-1031	Computer Software Engineer	\$39.66	n/a	Bachelor's Degree
15-1021	Computer Programmer	\$29.09	\$34.14	Bachelor's Degree
15-1051	Computer Systems Analyst	\$33.46	\$25.37	Bachelor's Degree
15-1041	Computer Support Specialist	\$20.49	\$15.74	Associate's Degree
<i>Machinery and Equipment Wholesalers</i>				
49-3042	Mobile Heavy Equipment Mechanic	\$19.15	\$13.98	Vocational School
53-7062	Laborer and Freight, Stock and Material Mover, Hand	\$10.83	\$8.53	High School Diploma
<i>Maintenance, Repair and Overhaul</i>				
49-9043	Maintenance Workers, Machinery	\$18.19	\$14.13	Vocational School
49-3011	Aircraft Mechanics and Service Technicians	\$26.81	n/a	Vocational School
49-2091	Avionics Technicians	\$26.77	n/a	Vocational School
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment	\$19.87	\$24.73	Vocational School
49-9041	Industrial Machinery Mechanics	\$17.78	n/a	Bachelor's Degree
49-9042	Maintenance and Repair Workers, General	\$16.16	\$12.91	High School Diploma
51-4121	Welders, Cutters, Solderers and Brazers	\$14.59	\$15.14	Vocational School

High-Opportunity Sub-sectors for Northwest Florida's Aviation, Aerospace, Defense and National Security Cluster

SRI International's research identifies that Florida's Great Northwest should focus on several high-priority, high-opportunity sub-sectors within the Aviation, Aerospace, Defense and National Security cluster that offer strong growth opportunities and that match Northwest Florida's competitive advantages:

- Unmanned Systems (Autonomous Uninhabited Systems including Uninhabited Aerial Vehicles and Uninhabited Underwater Vehicles)
- Very Light Jets
- Composite Materials
- Avionics
- Engineering, Testing, Research and Development, and Industrial Design
- Consulting Services
- Air Cargo and Distribution
- Maintenance, Repair and Overhaul
- Air Transportation and Support Activities
- Flight Training

About Florida's Great Northwest



Florida's Great Northwest is a regional economic development organization serving sixteen counties in Northwest Florida from Pensacola through Tallahassee. Membership in Florida's Great Northwest includes county and local economic development groups, workforce development boards, community and junior colleges, universities, and private businesses – with private businesses composing the majority of the organization's membership. For more information, please visit our website at www.FloridasGreatNorthwest.com.