

### **Executive Summary**

The Employ Florida Manufacturing Banner Center met with a focus group of North Florida industry leaders, regional workforce boards, economic development, and educators at Florida State College at Jacksonville. The meeting was organized and coordinated in partnership with the college and First Coast Manufacturers Association. Participants convened with the purpose of evaluating current and future hiring and training needs of manufacturing companies and the associated knowledge and skills sets most in demand. The participants were brought up to date with information and successes of the Banner Center and encouraged to provide input, feedback, and direction for current and future direction of the Center's programs. It is interesting to note that some of those present had participated in the initial Banner Center focus group held in Jacksonville in 2008 and were please to see their prior input come to fruition in Banner Center initiatives.

### **Introduction**

On June 10, 2010 the Banner Center for Manufacturing held a focus group meeting at the ATE Center at Florida State College at Jacksonville targeting manufacturing leaders in North Florida. 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 Jacksonville targeted companies and organizations located in North Florida. The purpose of the focus group was to discuss the need for, and value of, input was solicited to ascertain what skills sets were needed, how best to measure those skill sets, how candidates were currently selected, what training was most needed, and what delivery method(s) would be preferred.

Dr. Eric Roe, Director of the Banner Center for Manufacturing, welcomed participants and utilized a Power Point presentation to give an overview of the Banner Center initiative, historical information, successes to date, and directives from Workforce Florida and our Advisory Council. Dr. Roe also allowed adequate time for questions and answers from participants. After his introduction, Dr. Roe turned the meeting over to the focus group facilitator, Peter D. Straw, Performance Development Strategies, LLC. Mr. Straw used a portfolio of approaches to ensure the industry members, comprised of experts in a wide spectrum of manufacturing, economic development, and education, adequately addressed the topics. The format of the focus group meeting agenda (see Appendix 1 - Focus Group Agenda) served to elicit general and specific feedback on the topics of interest. Following the meeting, Mr. Straw prepared a report to the Banner Center. His original report can be found in Appendix 3 – Facilitator's Report. The Banner Center for Manufacturing combined notes and data collected during the meeting with the facilitator's report for clarity and readability.

### **Focus Group Topics**

In collaboration with the FLATE Center, a comprehensive listing of manufacturing-related industry certifications approved by WFI for CAPE academies was distributed.

Participants were asked to mark those programs with which they were familiar and/or considered valuable in evaluating employee skills. They were also asked to strike through those certifications that they did not believe had value to manufacturing. Among the participants, many of the certifications were well known and considered valuable. Others were considered to be of little or no value.

Next Mr. Straw facilitated discussion in Industry Trends, Training and Education Needs, Training Format, Future Direction of the Banner Center, and Recap and Evaluation. As in any focus group, this meeting 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.

The facilitator led the focus group participants (see Appendix 2 - Attendee List) through the following topics during the discussion forums:

- What are the current and future trends in manufacturing?
- What are your educational needs?
- What are your training needs?
- What training format and delivery is relevant for your business?
- What direction do you feel that the Banner Center should be taking?

Following the discussion portion of the Focus Group, the facilitator collected the guided comment sheets from participants which captured their input regarding Industry Trends, Training Needs, Education Needs, Training Format, and Action Items.

Evaluation sheets were distributed at the close of the meeting in which participants were asked (see Appendix 4 – Summary of Evaluations):

- What Worked?
- What Didn't Work?
- How Could We Improve?
- What Did You Learn Today?

Immediately after participants left, the facilitator met with Dr. Roe and Howard Johnson (Banner Center Coordinator) to discuss what worked well and to look for areas of improvement.

### **Discussion Findings**

This facilitated discussion was guided to solicit feedback from industry of their changing workplace, competencies needed by the workforce, and tools needed for talent development. The flow of the discussion was as follows:

#### **Current & Future Trends:**

- Supply Chain – The discussion began with supply chain management and how important the supply chain is to manufacturing's bottom line. Vendors and production partners impact a business operation. Education and training can help create a more effective supply chain.

- Economy – A dominating factor that had not arisen in previous focus groups is the economy. While employers are not averse to paying for training, their criteria are defined by the current economy. Staffing cutbacks make it difficult or impossible to send members of a reduced workforce to off-site training. This has also necessitated proliferation of self-directed work teams which reinforce the need for cross training and critical thinking/decision making skills. Companies are bringing back older workers on a part time basis to meet production demands. This creates a diverse workforce with distinctly different learning patterns, work ethic and culture. Supervisors often lack skills to manage this diverse workforce effectively. With high unemployment, employees have an incentive to train on their own time. Coupled with reduced training budgets, this could make cafeteria style curriculum and targeted short cycle training modules attractive with reduced time demands and lower tuition costs. Comments included the need for more specific training that would reflect a positive net effect on profitability within the same fiscal quarter in which it was delivered. Training modules must be capable of in-house delivery on abbreviated schedules that allow employees to maintain a full work load. Train-the-trainer programs would help in this regard. We must emphasize cost effective programs with immediate deliverables specifically targeted toward improving skills rather than increasing general knowledge.
- Globalization – Much of the equipment being used in modern manufacturing plants is designed and built in other countries. Products being assembled in the U.S. are being shipped all over the world. These facts point to the need for “tech literate” employees who can read translated manuals and converse with others who may only speak English as a second language.
- Workforce – Several important factors were discussed: aging of our industrial workforce, public misconception of “manufacturing” jobs, different learning styles, and different work ethics of the various generations represented. As with the marketplace, the labor force is undergoing globalization. The need to educate supervisors on how to understand employees from other cultures – beyond mere literal translation – was expressed.
- Evolving Business Model – Companies are now engaging the entire workforce in using business tools. Silos between administration, management, and production are breaking down. Emphasis is on cost reduction, increased efficiencies and higher productivity, all while operating with reduced budgets. Pursuit of Lean Manufacturing philosophy demands that everyone in the organization be aware of and support the company’s goals, business model, and culture.

### **Training & Education Needs**

- Education Needs - New hires need proficiency in high school level math, science and reading. They also need mechanical aptitude as defined by Bennett and TABE tests. Current Florida K-12 system produces graduates with questionable proficiencies. Continue to “fix the base” in these areas.
- Training Needs - The basics in training are still needed – welding, machining and maintenance skills. Also need PLCs, CNC. Provide practical skill-based testing that will allow employees to demonstrate what they’ve learned on the job, thus avoiding lengthy classroom or lab sessions. Employees could take brief refresher courses in preparation for the tests. Award certificates of competency to those passing the tests. Provide short-term supervisory training than can

empower recently promoted team leaders. Utilize computer based training (CBT) whenever practical. There is a preference for monitored CBT over self-directed CBT. Deliver training in-house when feasible.

#### **Direction**

- Create “skills-to-pay” training comprised of more than a single skill set.
- Provide training that will result in a skill level that combines mid-level management, supervisory, lead person, and floor level skills to meet the demands of today’s self-directed workforce.
- Package cost-effective, value added training that can be implemented on-site.
- Tie training to a career path that benefits the employee as much as the company.
- Create “bite-sized” training modules that require 30-minute to 120-minute sessions. These could be delivered at the workplace without overtaxing the trainees or company resources.
- Train facilitators capable of mentoring and/or monitoring several trainees studying several different subjects within a computer-based training environment.
- Create cafeteria-style training which will afford more choices of subject matter as well as specific subsets within any one subject. This should prove less daunting for prospective trainees than current full courses.

#### **Closing Comments and Observations**

The breadth and depth of the group’s overall participation was assessed as being very inclusive. Almost every participant contributed to the discussion on multiple occasions. With this degree of participation from manufacturers, the Banner Center should be able to aggregate focus group findings and design programs and initiatives that align with industry needs. The focus group concluded that training and certification discussed herein continue to be critical needs of industry. The Banner Center was encouraged to keep developing valuable curricula and keep working on ways to make it more accessible to industry.

## Appendix 1

### Focus Group Meeting Agenda

### **Meeting Agenda**

- 7:45 - 8:00 a.m. Registration
- 8:00 - 8:10 a.m. Welcome and Introductions
- Dr. Eric A. Roe - Director, Employ Florida Banner Center for Manufacturing
  - Peter Straw - Principal, Performance Development Strategies
- 8:10 - 8:20 a.m. Employ Florida Banner Centers Introduction (Dr. Roe)
- 8:20 - 8:30 a.m. Focus Group Orientation (Peter Straw)
- Introduction
  - Role, context, and flow of the Focus Group
- 8:30 - 9:15 a.m. Where are we now (Dr. Roe)
- Unified Pathways for manufacturing education and training – career academies, industry certification, college degrees, workforce and incumbent training, and apprenticeship programs.
- 9:15 - 9:25 a.m. Break
- 9:25 – 10:40 a.m. Trends, Needs, and Certifications
- Trends – What are the current and future trends in your industry, which will drive workforce training & education needs for manufacturing occupations?
  - Training and Education needs – What programs does your company need to meet the previously identified trends?
  - Certifications – What industry certifications (CPT, CLA, OSHA, APICS, NIMS,...) are important to your companies?
  - Training Format – What formats for module development and delivery are of use to your company?
- 10:40 - 11:00 a.m. Open Discussion and Meeting Recap
- Given the above information and feedback, what should the Banner Center do in your community/company to ensure that your company has the talent needed to sustain and grow your operations?

## Appendix 2

### Attendee List

## Attendee List

Larry Hickey	Atlantic Marine
Matt Waesche	Atlantic Marine
Melissa Hungerford	Bridgestone Firestone
Jane Bachtell	Clements Publishing
Chris Force	Duval County School Board Career & Tech Ed
Ed Sanford	ENKEI
Guy Colombo	Gerdau Ameristeel
Sherri Mitchell	First Coast Manufacturers Assoc (FCMA)
Maria Corby	FCMA
Ernie Friend	Florida State College at Jacksonville (FSCJ)
Faith Landis	Jacksonville Lean Consortium
Donald Ransom	Lyondell Basell
Joe Waryold	Maxwell House
Dan Edelman	Swisher International
Peggy Lee Tocco	University of North Florida (UNF)
Jorge Santiago	Weather Engineers
Bruce Mobley	U.S. Navy (FRCSE)
Terry Cox, Sr.	U.S. Navy (FRCSE)
Bob Harris	RL Harris, LLC
Bob Schindler	RL Harris, LLC
Dr. Eric Roe	Banner Center for Manufacturing
Howard Johnson	Banner Center for Manufacturing
Peter Straw	PDS/SAMA

## Appendix 3

### Facilitators' Report

**Employ Florida Banner Center for Manufacturing**

**Regional Manufacturing Industry Focus Group**

**Jacksonville, FL**

**6/10/2010**

## **FACILITATOR SUMMARY**

**Prepared**

**6/15/2010**

**Peter D. Straw**

**PERFORMANCE DEVELOPMENT STRATEGIES, LLC**

Focus Group convened at 8:00 AM, 6/10/2010  
State College of Florida, Jacksonville

Presiding presenters:

Dr. Eric Roe,  
Director Employ Florida Banner Center for Manufacturing

Peter D. Straw  
Facilitator, Performance Development Strategies, LLC

The focus group participants consisted primarily of manufacturers. Representatives from the region's workforce/economic development and educational, community were also in attendance. Several of the manufacturers were participants in the initial Banner Center focus group held in Jacksonville in 2008.

Session Agenda:

Welcome & Introductions

Employ Florida Banner Centers Introduction

Focus Group Orientation

Update on Education for Manufacturing Employees

Examination of Existing Industry Certifications

Discussions

Industry Trends

Training and Education Needs

Training Format

Future Direction of Banner Center

Recap & Evaluation

## **Creating Context**

To begin, Dr. Eric Roe presented the history of Banner Center for Manufacturing Education since inception.

Dr. Roe detailed the curriculum and programs that have been created under the auspices of the Banner Center. The majority of the participants seemed unaware of the full scope of the Banner Center's work to date.

A description of the current status of educational system included information on K-12 programs such as career academies, articulation agreements, engineering technician designations, and outreach / recruiting programs such as Made in Florida.

Several of the participants who had participated in earlier focus groups remarked that they were impressed with the fact that their previous input had been acted upon. Continued participation by private industry can be ensured if Banner Center continues to be responsive to their needs.

The update created the context for a conversation about the future training and education needs of manufacturing employees at all levels.

## **Certifications**

In collaboration with the FLATE Center, a comprehensive list of industry certifications approved by WFI for CAPE academies was distributed.

Participants were asked to review the list and do two things:

- 1: Mark those certifications programs with which they were familiar and/or as employers considered valuable in evaluating employee skills.
- 2: Strike through certifications that they did not believe had value to manufacturing.

It was noted that several certifications and the instructional delivery system whereby employees could receive the training to attain them were not well known among employers.

## Future Trends

This facilitated discussion was guided to solicit feedback from industry of their changing workplace, competencies needed by the workforce, and tools needed for talent development. The following narrative captures the flow of the discussion.

### Supply Chain

We began by exploring modern supply chain management. This led to a discussion of the potential vendors and production partners to impact a business operation from outside the facility's walls and how proper training and education can help create a more effective supply chain. The group expressed a need for integrated training up and down the supply chain.

### The Economy

A dominating factor that did not arise in previous focus groups is the economy. While employers are not averse to paying for training; their criteria are defined by the current economy. Staffing cutbacks dictated by weak sales make it impossible to send members of a reduced workforce to off-site for training. These same cutbacks have necessitated creation of "self-directed work teams". Such teams reinforce the need for cross training and critical thinking / decision making skills.

Companies are bringing in older workers on a part time basis to meet production demands. This trend creates a situational workforce with distinctly different learning patterns, work ethic and culture. Supervisors are placed with inadequate skills to manage this diverse workforce effectively.

With high unemployment; employees have incentive to train on their own time to maintain their employability skills and increase their potential for promotion. Coupled with reduced training budgets, this could make cafeteria style curriculum and targeted short cycle training modules attractive. Such programs would have reduced time demands and lower tuition costs.

Comments included the need for more specific training that would reflect a positive net effect on profitability within the same fiscal quarter in which it was delivered.

Training modules must be capable of delivery in-house on abbreviated schedules that allow employees to maintain full work load. "Train the trainer" programs appeared to be an acceptable solution to address these conditions.

Today's economic environment places emphasis on cost effective programs with immediate deliverables; specifically targeted toward improving skills rather than increasing general knowledge.

### Globalization

Much of the equipment being used in modern manufacturing plants is designed and built in other countries. Products being assembled in the United States are being shipped all over the world. These facts point to the need for "tech literate" employees who can read translated manuals and converse with others who may speak English as a second language.

### Workforce

Factors of importance included; the aging of our industrial workforce, the public misconception of "manufacturing employment" (and how to combat this effect when recruiting), different learning styles and different work ethic of different generations. As with the marketplace, the labor force is undergoing globalization. Multi-language training will be required. The need to educate supervisors on how to understand employees from another culture – beyond mere literal translation – was expressed.

### Evolving Business Model

Companies are now engaging the entire workforce in using business tools. Silos between administration, management, and production are breaking down.

Emphasis is on cost reduction, increased efficiencies and higher productivity – all while operating with reduced budgets.

Pursuit of Lean Manufacturing philosophy demands elevating the understanding of everyone within the organization of the company's goals, business model, and culture.

## **Training & Education Needs**

"What programs would help you meet the needs dictated by the previously identified trends?"

This conversation flowed as the natural progression from the trends discussion. Some recurring points:

Education requirements:

12<sup>th</sup> grade level math, science & reading level skill for new hires

Mechanical aptitude as defined in Bennett & TABE tests

Current Florida k-12 system produces graduates with questionable proficiencies

Training requirements:

Continue to offer basics: i.e. welding and machinist skills.

Hands on training for welding, machining and maintenance

Provide practical skill based testing that will allow employees to demonstrate what they have learned on the job – thus avoiding lengthy classroom or lab sessions. Employees could take brief refresher courses in preparation for these tests. Award certificates of competency to those passing the tests.

Continue to “fix the base” in the areas of mathematics, science and English training.

Provide “short term supervisor training” that can empower recently promoted team leaders.

PLCs , CNC

Utilize Computer based training (CBT) whenever practical. There is a preference for monitored or mentored CBT over totally self-directed CBT.

Deliver training in-house when feasible.

## **Direction**

“What should the Banner Center do in your community to ensure that your company has the talent needed to sustain and grow your operations?”

Create “skills-to-pay” training comprised of more than a single skill set.

Provide training that will result in a skill level that combines mid-level management, supervisory, lead person and floor level skills to meet the demands of today’s self-directed workforce.

Package cost-effective, value-added training that can be implemented on-site.

Tie training to a career path that benefits the employee as much as the company.

Create “bite-sized training modules” that require 30 minute – 120 minute sessions. These could be delivered at the workplace without overtaxing the trainees or the company’s resources.

Train facilitators capable of mentoring and/or monitoring several trainees studying several different subjects within a computer based training environment. Create “cafeteria-style” training which will afford more choices of subject matter as well as specific subsets within any one subject. This should prove less daunting for prospective trainees than current full courses.

## **Evaluation**

Participants had been to make notes on the two-sided comment sheets distributed when the session began. One side of the sheet provided four distinct areas for notes on our discussion topics: Industry Trends, Training Needs, Education Needs and Training Format. The reverse side of the sheet was dedicated to Banner Center Action Items.

Participants were encouraged to jot down thoughts that might not be captured by our note takers on the flip charts or not verbalized in their entirety. Extra blank sheets were made available for participants as needed.

These comment sheets were collected. Comments not previously noted by facilitators were added to overall data collection. (For a complete list of all comments, see notes compiled by Howard Johnson.)

Evaluation sheets were distributed at the close of the event.

Participants were requested to evaluate their experience of the focus group. Evaluation sheets were collected from the majority of participants as they exited. (See collected Evaluation sheets)

## **Methodology Recap**

Immediately after participants left, the facilitators assembled to discuss what worked well and to look for areas for improvement.

Upon reviewing the Education Update portion of the presentation, it was decided that more emphasis could be placed upon current training. Less time will be dedicated to detailing the traditional k-12 and post secondary education model.

The breadth and depth the group’s overall participation was assessed as being very inclusive. Almost every participant contributed to the discussion multiple times. With this degree of participation from manufacturing employers, the

Banner Center should be able to aggregate focus group findings and design future programs and initiatives that align with industry needs.

Submitted 6/15/2010

Peter D. Straw

Performance Development Strategies, LLC

## Appendix 4

### Summary of Evaluations

**How Did We Do? Summary of 9 Respondents**

**What sector do you represent?**

<input type="checkbox"/> Manufacturing	<b>4</b>
<input type="checkbox"/> Manufacturing Support	<b>2</b>
<input type="checkbox"/> Education	<b>1</b>
<input type="checkbox"/> Workforce Development	<b>1</b>
<input type="checkbox"/> Economic Development	<b>0</b>
<input type="checkbox"/> Other: _____	<b>1</b>
	<b>9</b>

**How many employees at your company/organization?**

<input type="checkbox"/> 1-10	<b>2</b>
<input type="checkbox"/> 11-25	<b>0</b>
<input type="checkbox"/> 26-100	<b>2</b>
<input type="checkbox"/> 101-500	<b>1</b>
<input type="checkbox"/> >500	<b>3</b>
	<b>8</b>

**What Worked?**

- Great information from the Banner Center and participants. (2)
- Format
- Time
- Knowledge base of presenters
- All worked well
- Group interaction/great discussion (4)
- Best practices shared

**What Didn't Work?**

- Noisy facility
- Went great
- Can't think of anything
- Too much time spent on background (who started what, when, etc.)
- All was well

**How Could We Improve?**

- Do more of these (2) to keep the group up to speed on progress & new developments.
- On track
- Some examples of the materials would help
- Presentation of a successful manufacturer that fully utilizes BC resources
- More time

**What Did You Learn Today?**

- Form & function of Banner Centers
- Value of BC services
- Needs of employees
- Attitudes regarding training
- Many programs we can use by making small changes
- Resources available (2)
- Further awareness of training needs for manufacturing
- Other manufacturers have same issues we have
- Great start to core training – need to use it