Maritime and Transportation Industry Workforce Focus Group Findings

January 24-25, 2017    Baltimore, Maryland
Group Purpose and Composition
Meeting Forum

- 2-day workshop and focus group at the Maritime Institute of Technology & Graduate Studies (MITAGS) convened by the SMART Center in conjunction with AACC and the Baltimore Port Alliance
Meeting Purpose

- Identify critical industry workforce needs, competencies, skills and credentials as well as development and scaling of industry-aligned career pathways
Overview of Participants

- More than 30 participants who represented:
  - education or training institutions
  - port/shipping operation firms
  - industry trade associations
  - port education and outreach organizations
  - maritime logistics/warehousing businesses
  - shipbuilding & repair companies
  - freight forwarders
  - state education representatives
Top In-Demand Occupations

1. Crane Operators
2. Maintenance Mechanics
3. Forklift Operators
4. Marine Welders
5. Logistics Technicians
6. Machinists
7. Marine Electricians
8. Pipefitters
9. Marine Engineers
10. Assembly & Utility Operators
11. CAD Drafting & Design Technicians
12. Marine Carpenters
13. CNC Operators
14. Marine Architects
Additional Workforce Needs

- Export-Import Operations
- Ro-Ro Ground Transportation Drivers
- Longshoremen
- Deckhands
- Planners
- Port Foremen
- CDL Drivers
- Diesel Mechanics
Key Skill Needs

1. Safety: security, regulatory, packaging and customs requirements
2. Recognize unsafe material equipment/operations and offer corrective actions
3. Access data and communicate electronically
4. Familiarity with appropriate industry terminology and acronyms
5. Operate computer and keyboard equipment
6. Appropriate transportation modes for loading and unloading processes
7. Maintain accurate inventory by using appropriate hardware/software to avoid shipping and billing errors
8. Procedures for loading/unloading cargo
9. Warehouse and inventory control fundamentals
10. Freight classification according to freight standards for bill of lading
11. Access inventory and record control principles to assure timely delivery of materials
12. Operate bar coding/RFID equipment and applications
13. Operate GPS/GIS equipment and applications
14. Identification of necessary markings required for asset identification
Top Skills Needed for Welders

1. MIG
2. TIG
3. Plasma
4. ARC
5. Oxy-Acetylene

Also: flux core, stick
Top Skills for Electricians

1. Network Wiring
2. AC Theory
3. DC Theory
4. Low Voltage
5. 3-Phase AC
6. PLCs
7. Installation
Top Skills for Mechanics

1. Maintenance
2. Measurement
3. Pneumatics
4. Hydraulics
General Employability Skills

1. Problem solving
2. Communications
3. Teamwork
4. Trouble shooting
5. Safety
6. Workplace ethics
7. Attitude/stewardship
8. Quality assurance
Education and Training
Level of educational attainment necessary for the majority of company’s skilled workforce

Percentage of Workforce

- H.S. diploma/GED
- Industry certification
- A.A.S. degree
- DOL Journeyman credential
- B.A./B.S. degree
- M.A./M.S. degree
Value ranking of training sources for employees or potential hires

1. On the job training
2. Community college pre-employment training
3. Registered apprenticeship
4. Company training courses
5. Community college upskill training for incumbent workers
6. High school technical courses
7. Training from equipment manufacturing companies
8. Training offered by for-profit institutions/organizations
Does your organization offer training on site or pay tuition reimbursement?

- Yes
- No
- Not sure
What percentage of workforce has A.A.S. degree or higher?

- 0-25%
- 26-50%
- 51-75%
What percentage of your workforce holds A.A.S. degree or Journeyman credential?
What national industry recognized credentials or certifying organizations does your company value?

1. Haz Mat Certified
2. U.S. Coast Guard certifications
3. APICS Logistics certifications (CPIM/CSCP/CRIM)
4. IATA/FIATA International Federation of Freight Forwarders Association
5. CCS – Certified Customs Specialist/Customs Broker
6. Inventory control
7. Quality control
8. MSSC
9. ISM CPM – Certified Purchasing Manager
10. TWIC Card
11. PMP – Project Management Professional
Career Pathways
Are you likely to raise minimum qualifications for entry-level technical staff in next 5 years?

- Yes
- No
When do you begin recruiting and outreach efforts?

- Secondary (middle school/high school)
- College
- Adult (job fairs)
Are your current career pathway development efforts or activities effective at improving recruitment?

- Not effective
- Somewhat effective
- Effective
- Highly effective
Hiring Needs and Big Picture
Will the need for skilled port technicians increase?

- Yes - greatly
- Yes - somewhat
- Not sure
What are the biggest drivers for port technician workforce increase?

- Loss of labor due to retirement
- Changes in technology
- Internal reorganizations to drive productivity and profit
- Increased business demand
What soft skills do you view as critical when hiring?

1. Communication skills
2. Life skills - teamwork, problem solving
3. Work ethic
4. Good attitude
5. Leadership potential
6. Relationship-building ability
7. Industrial experience
Do you feel the current pool of available workers is completely ready for employment?

- Yes
- No
What additional training does your organization typically need to provide new hires?

- Work ethic
- Customer service skills
- Communication skills
- Technical knowledge
Questions?

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