



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



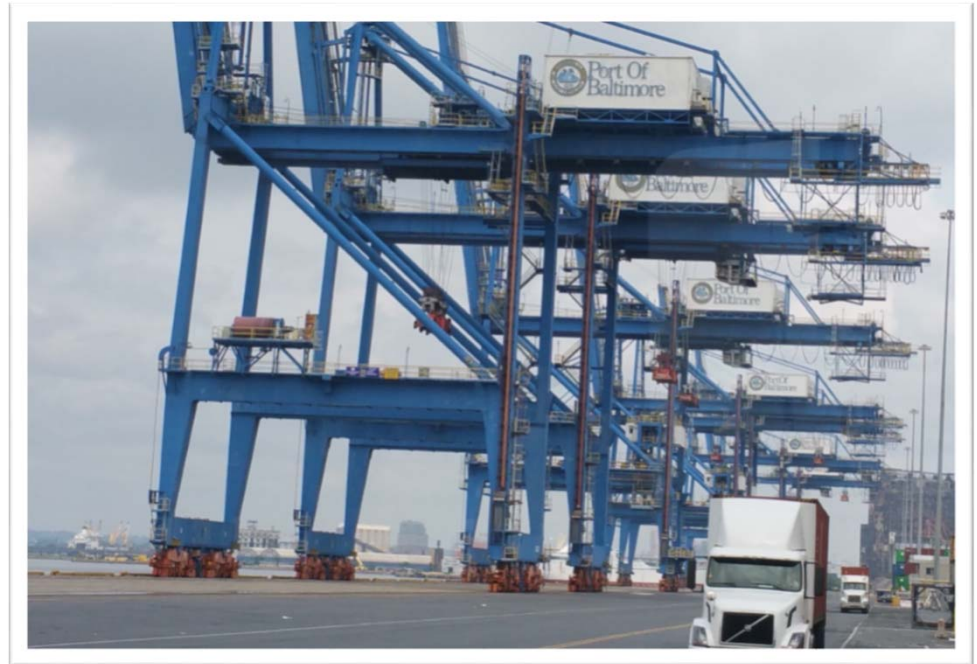
- More than 30 participants who represented:
 - education or training institutions
 - port/shipping operation firms
 - industry trade associations
 - port education and outreach organizations
 - maritime logistics/warehousing businesses
 - shipbuilding & repair companies
 - freight forwarders
 - state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



Findings

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



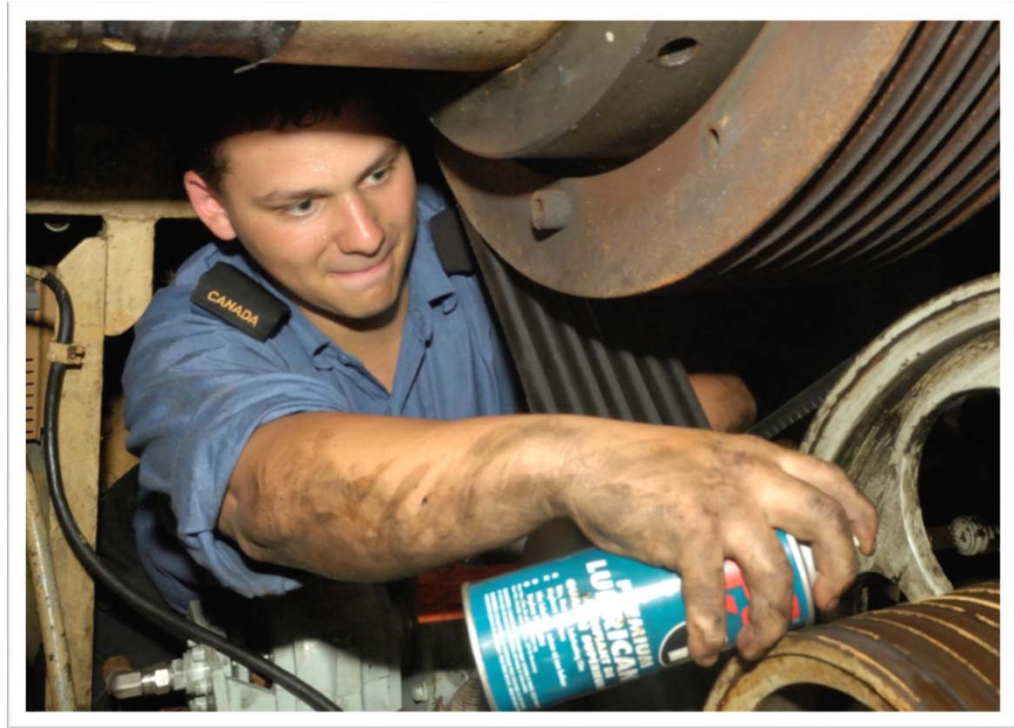
Top Skills for Electricians

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

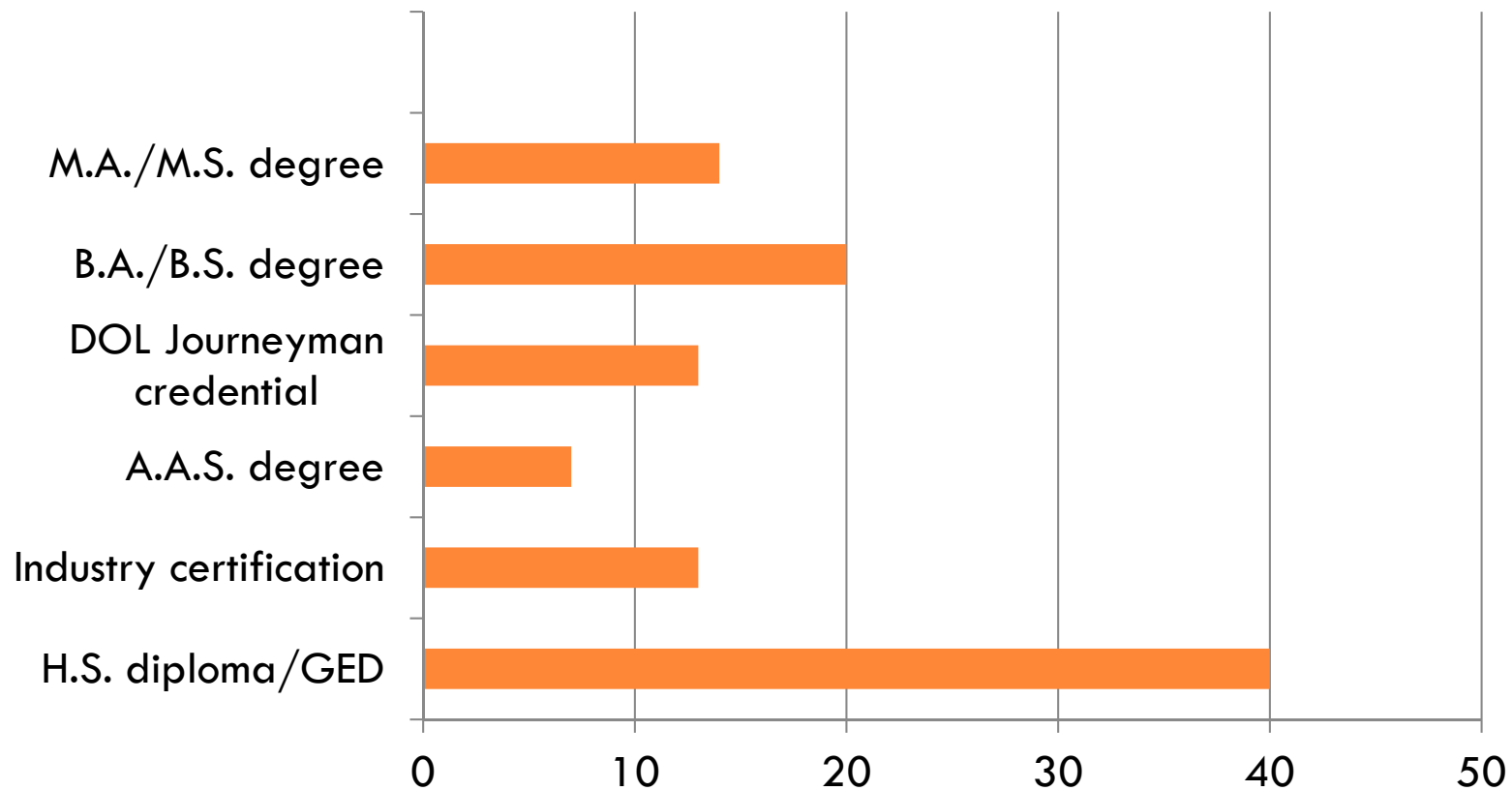





Education and Training

Level of educational attainment necessary for the majority of company's skilled workforce

Percentage of Workforce

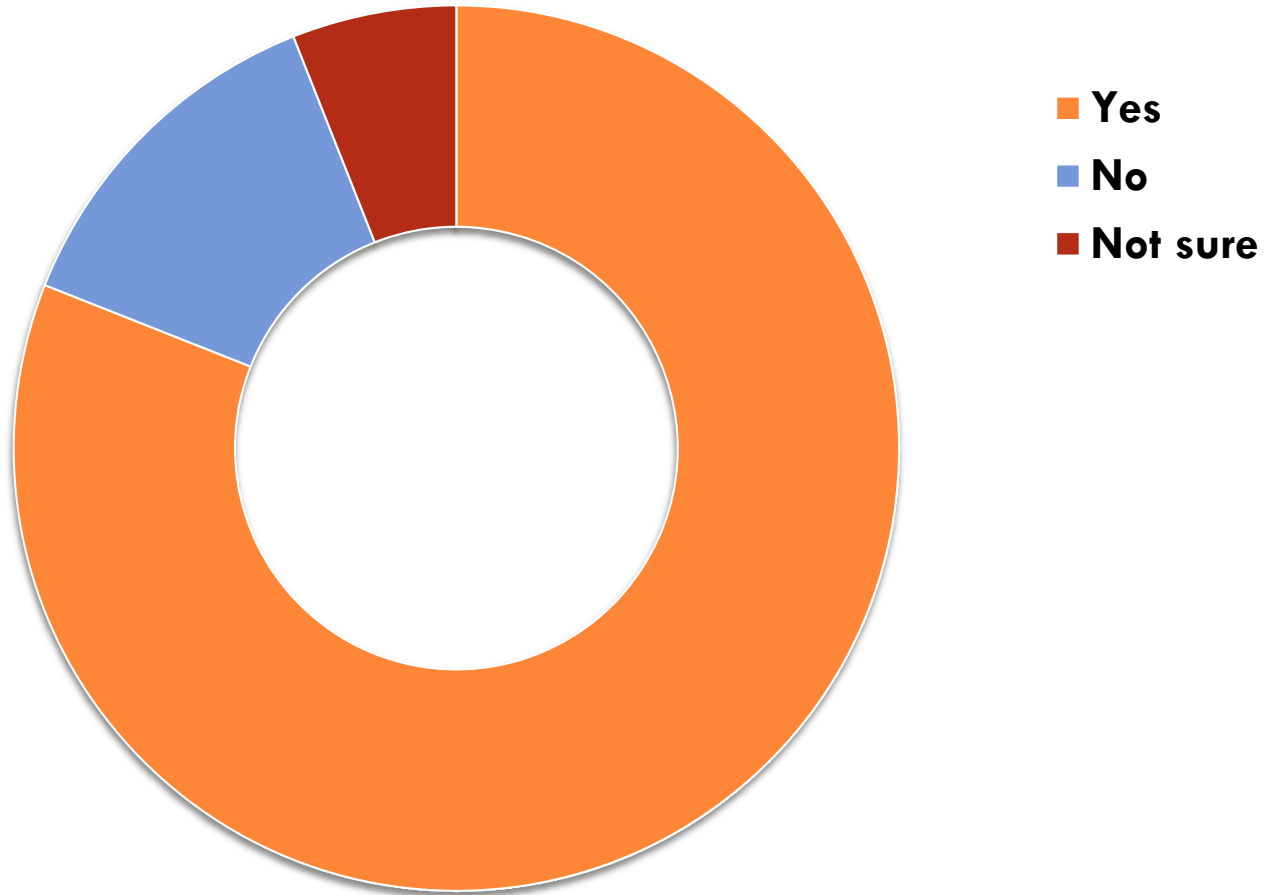


Value ranking of training sources for employees or potential hires

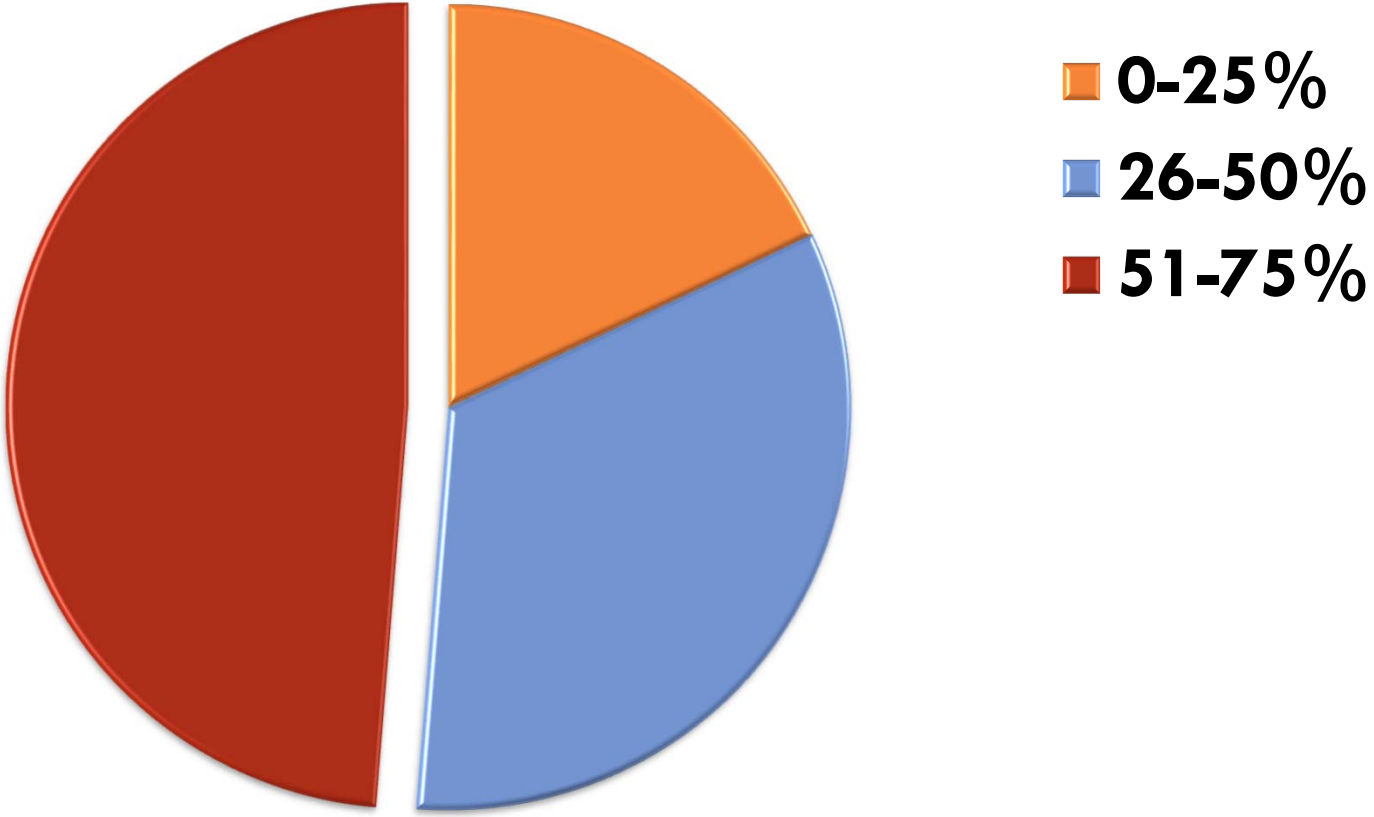


1. On the job training
2. Community college pre-employment training
3. Registered apprenticeship
4. Company training courses
5. Community college upskill training for incumbent workers
6. High school technical courses
7. Training from equipment manufacturing companies
8. Training offered by for-profit institutions/organizations

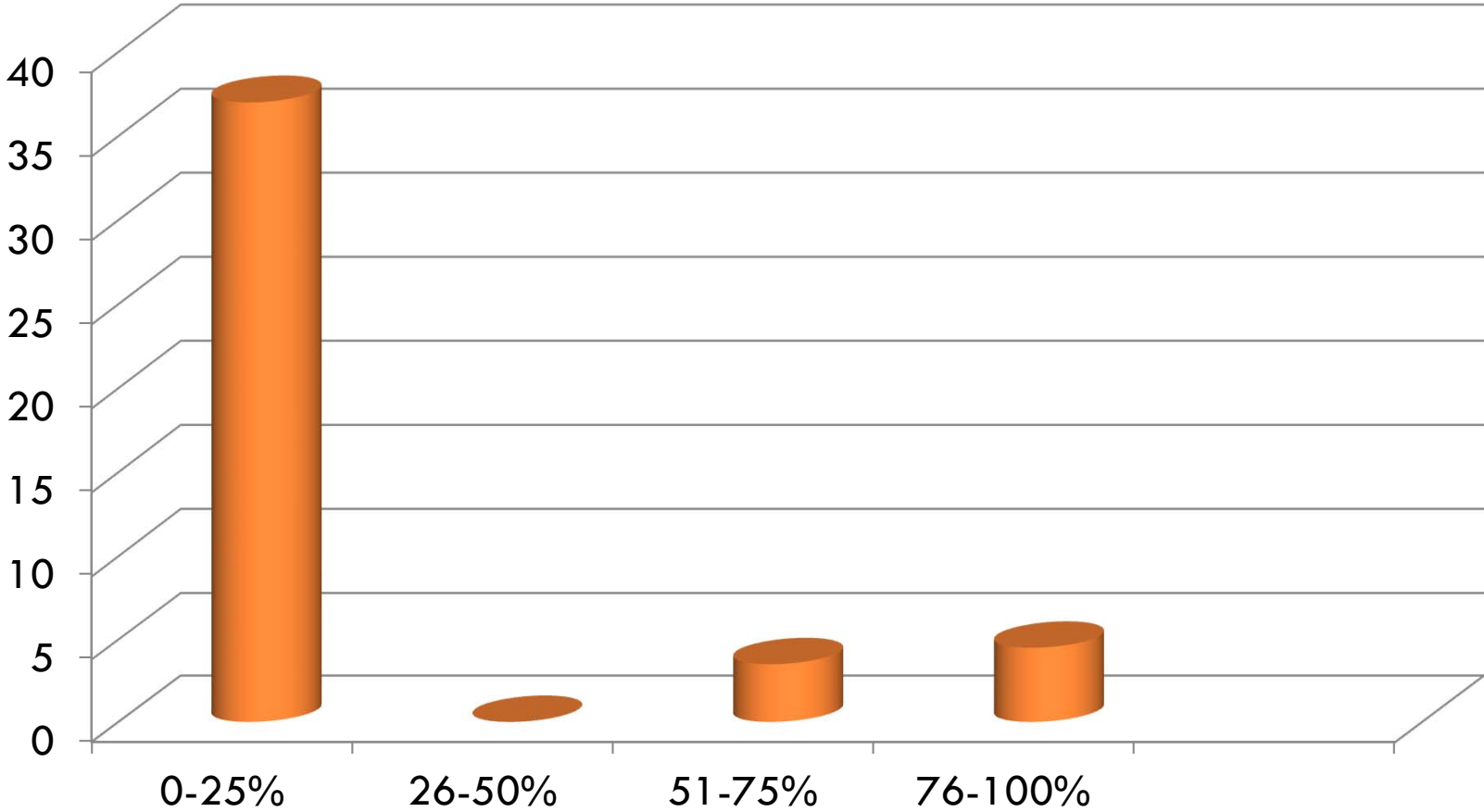
Does your organization offer training on site or pay tuition reimbursement?



What percentage of workforce has A.A.S. degree or higher?



What percentage of your workforce holds A.A.S. degree or Journeyman credential?



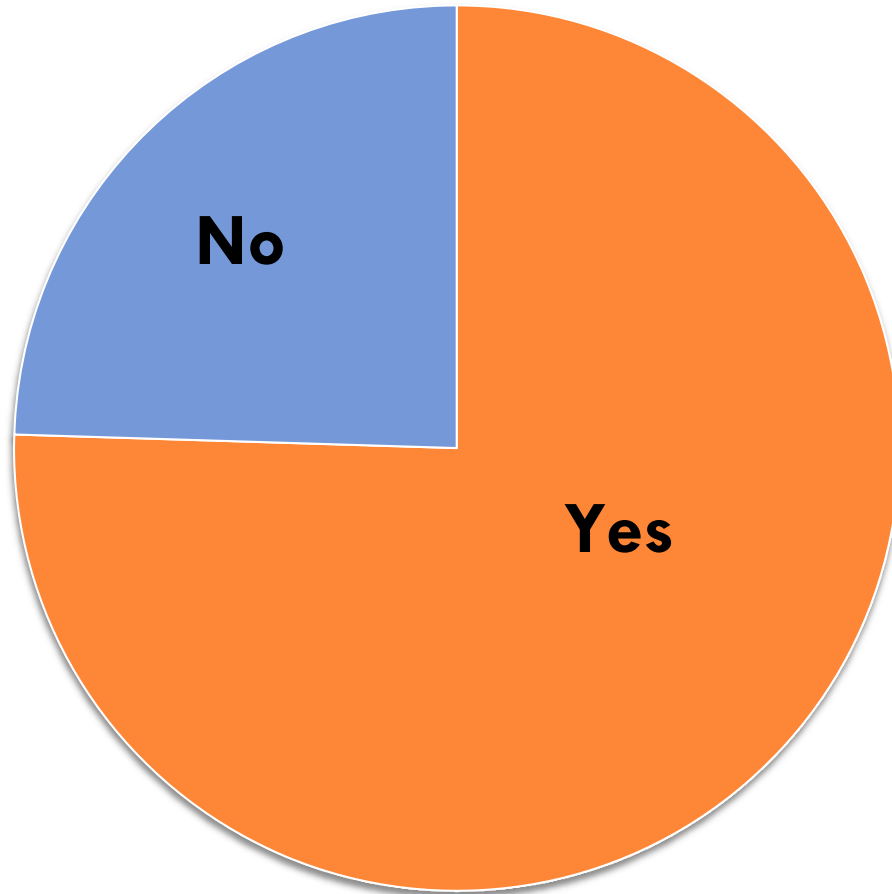
What national industry recognized credentials or certifying organizations does your company value?

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

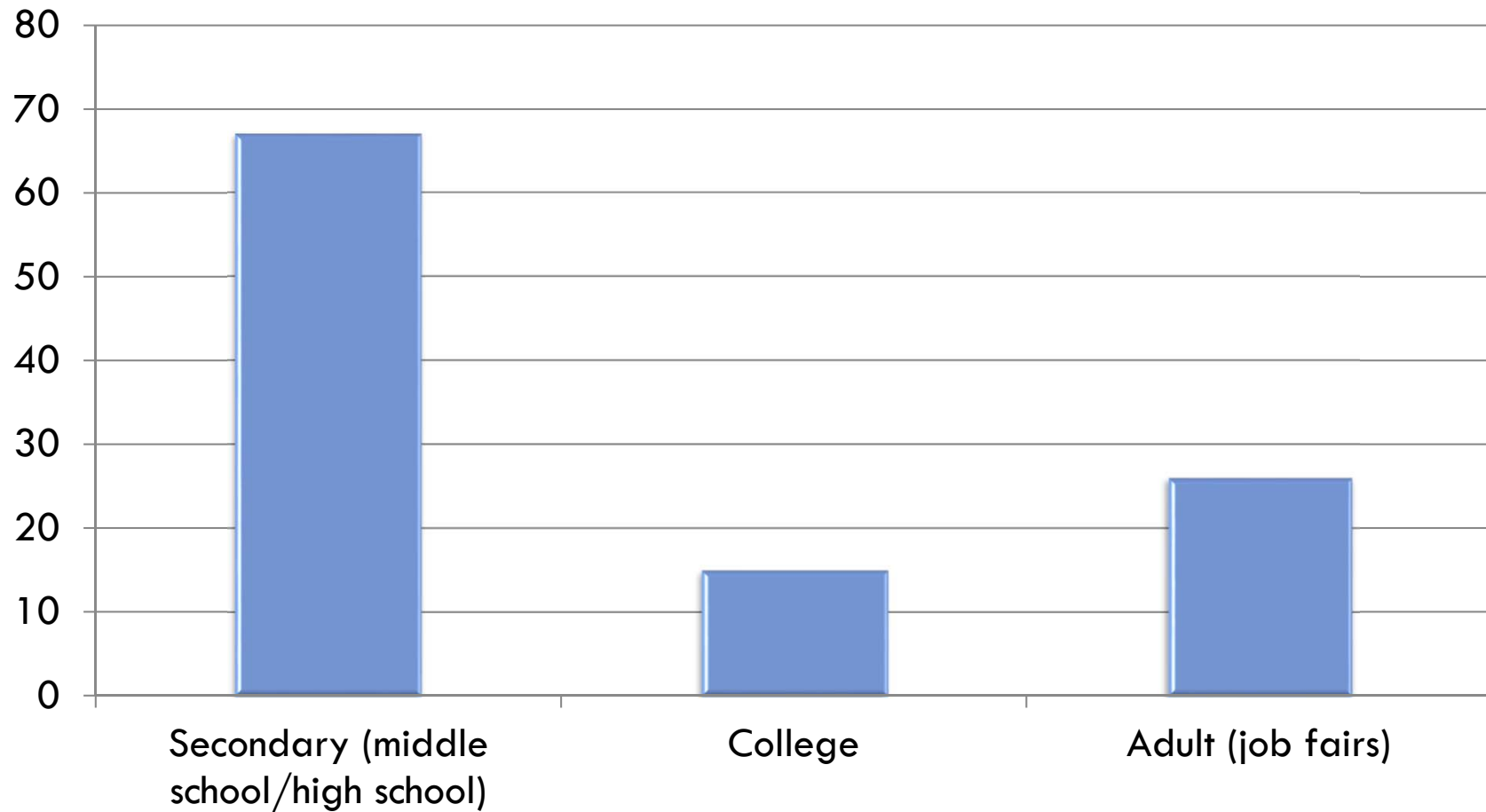


Career Pathways

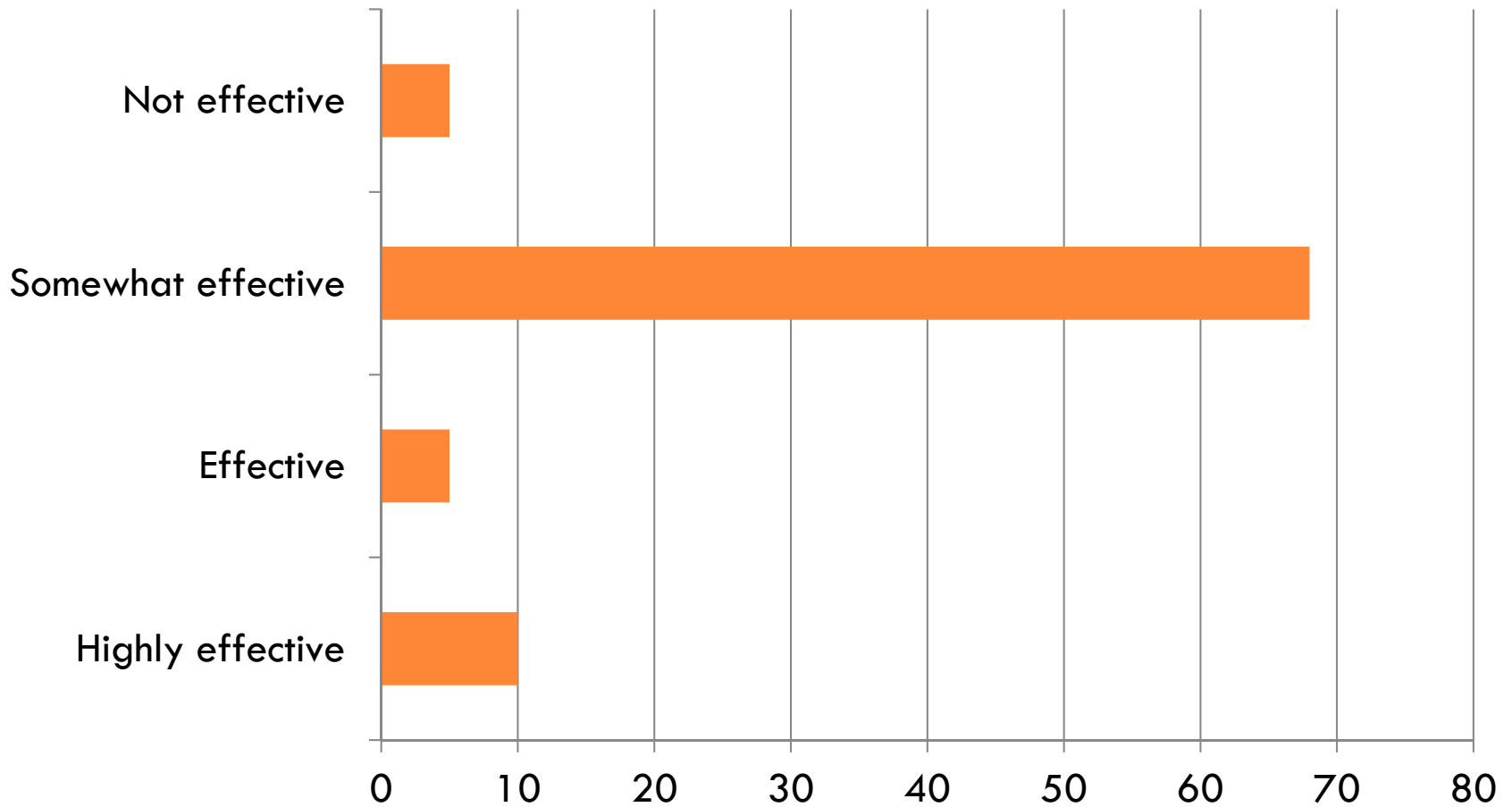
Are you likely to raise minimum qualifications for entry-level technical staff in next 5 years?



When do you begin recruiting and outreach efforts?



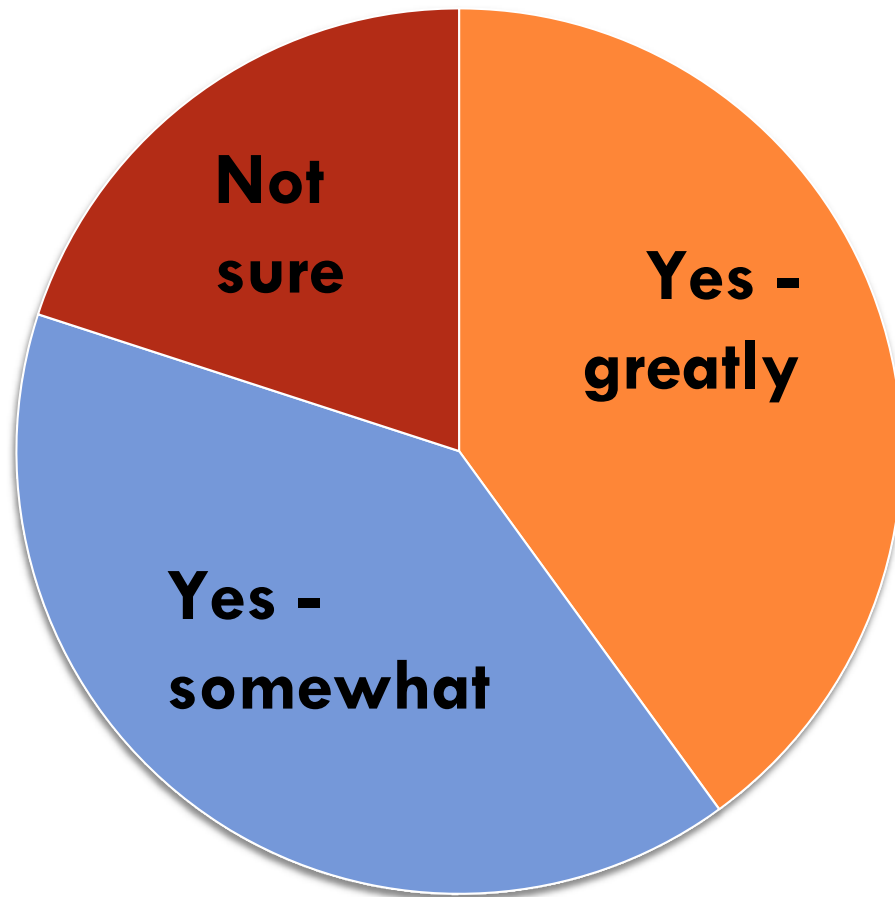
Are your current career pathway development efforts or activities effective at improving recruitment?





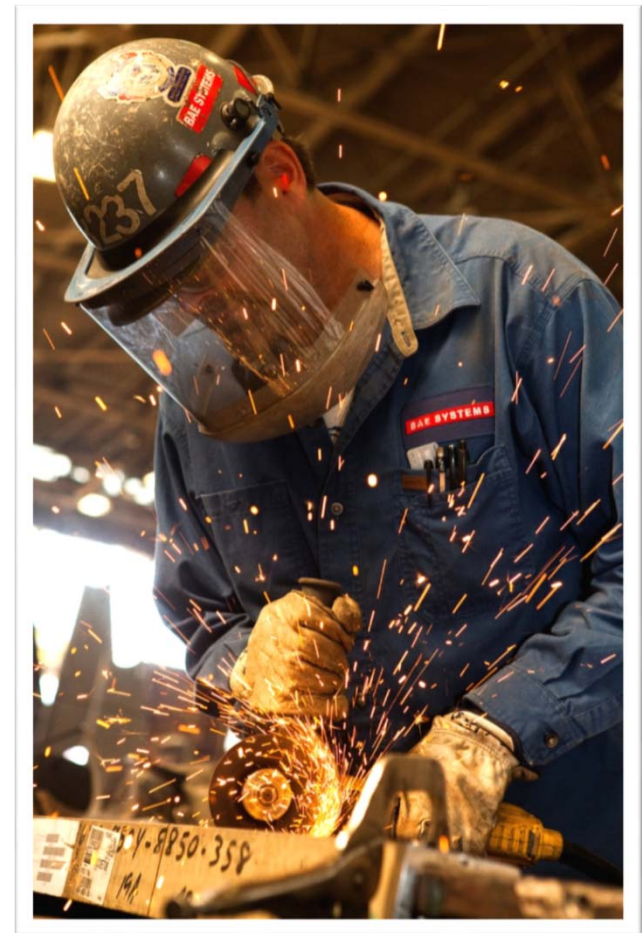
Hiring Needs and Big Picture

Will the need for skilled port technicians increase?



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

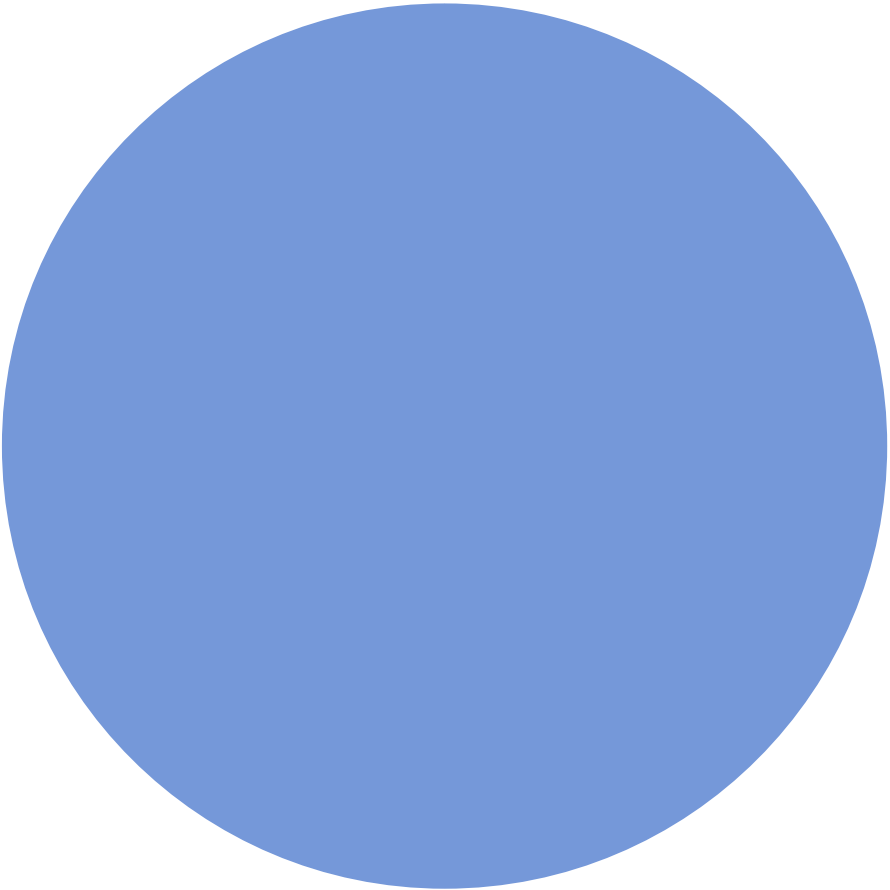


What soft skills do you view as critical when hiring?

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**

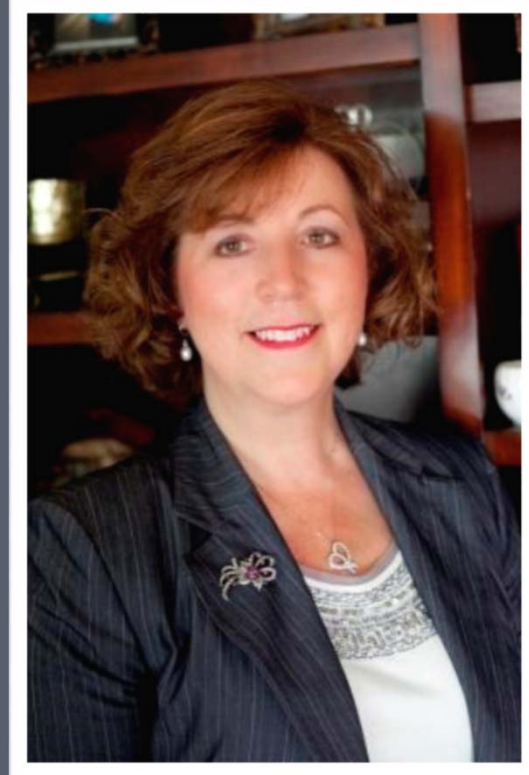
What additional training does your organization typically need to provide new hires?

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



Questions?

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