Abstract

According to a 2013 PwC survey, “The majority of Transportation & Logistics CEOs are increasing their investment in creating and fostering a skilled workforce. It’s their number #1 priority looking out over 3 years.” The survey also revealed that most CEOs are focused on workforce diversity and inclusion, and developing their leadership pipeline.

This is not surprising given the fact that the Baby Boomer generation, with their experience and leadership, is now exiting the workforce. The void left by their departure along with increased demand for logistics professionals, has created an estimated 1 million job opportunities in the industry. This is not limited to just logistics professionals, but to the entire transportation and supply chain community.

When one looks at the current requirements to fill an industry position, there are skills we didn’t anticipate 20 years ago. To name a few: environmental hazards; terrorist threats; new technology, in particular computer and communications technology advancements; international treaties and security; and, service issues related to capacity constraints. It is a rapidly changing environment in which continuing education should play a key role.

This is not limited to professional ranks, but also long-haul truck drivers, draymen, warehouse workers and intermodal operators. How will demographics, regulations and life-style preferences impact the demand and supply of the workforce?

There are a number of grass roots efforts at the local levels that have initiated educational programs to encourage youth to consider transportation and logistics as a career. Certainly there is more that can be done by the industry to foster interest and provide the education and training necessary for future leadership.

Current: Share of Industry Employment

- In 2014, the six subsectors in the transportation industry employed just over 4 million employees, roughly 3 percent of the total non-farm national economy.

  2014 Share of Current Industry Employment

  - Trucking 1.7M (42%)
  - Maritime 164K (4%)
  - Rail 625K (15%)
  - Highway 500k (12%)
  - Air 817k (20%)
  - Transit 650 (7%)

  4 million + Employed in Transportation

  Source: Transportation Learning Center (TLC) and Jobs for the Future (JFF) analysis based on EMSI 2014 Industry Report. Data retrieved from EMSI in June 2014.

- Fifty-three percent of current workers within the six subsectors are 45 years or older, 9 percent more than the national average. The need to replace retiring workers creates significant workforce development challenges.

Primary Resources:
Transportation is a Growth Industry

- Transportation is projected to add 417,000 net jobs from 2012 to 2022 due to industry growth. An additional 4.2 million workers will be needed for openings created by separations (occupational transfers, retirement, other exits).

Challenges and Opportunities

- There are a wide range of current trends challenging the transportation workforce. In many cases these challenges also present opportunities for industry growth and rejuvenation.

- The transportation industry is faced with an aging workforce that is going to be rapidly retiring.
  - This generational gap presents additional challenges of competing for next generation workers and being aware of multi-generational workplace issues.

- The magnitude and wide reach of the transportation workforce is another challenge that makes creating and executing strategic recruitment and retention plans challenging.
  - This magnitude is also part of what makes transportation an important sector of the economy and ensures a continued need for transportation industry operations and growth.

- General lack of diversity hiring and retention especially in higher paid and skilled transportation positions.
  - Women are highly under-represented in transportation, particularly highway, rail, trucking and maritime.
  - African-Americans and Hispanics are underrepresented in higher paid and skilled transportation jobs.

- Insufficient career awareness and educational opportunities have created a lack of adequately prepared entry level professionals. Students often make decisions about which careers they will pursue before they learn about transportation, so they are neither considering nor preparing for the transportation field.

- The rapid increase in technology used in transportation applications presents a challenge for an existing workforce that is unfamiliar with new technology and an incoming workforce who may not have had access to training for these new technologies.

Framework for Action

- The National Transportation Workforce Summit in 2012 brought together the many conversations and efforts around transportation workforce development and created a strategic framework for action.

Transportation Workforce Stakeholders

- Successfully recruiting, developing, and retaining the new and existing transportation workforce requires a collective effort involving transportation agencies, the Federal and State government, the private sector, and a range of educational institutions.

- Industry and labor stakeholders:
  - Employers: e.g., trucking companies, railroads, transit and port authorities, aviation, maritime, transportation construction, engineering, and design
  - Transportation trade and professional organizations
  - Labor organizations
  - Career exploration tools such as CareerOneStop provide a platform for sharing information and resources on careers in the transportation industry.
  - State workforce organizations: e.g., workforce investment boards, workforce development councils, and national association of workforce boards
• Government stakeholders:
  – U.S. Department of Transportation
    – The U.S. Department of Transportation has compiled resources and opportunities relevant to fostering a world-class transportation workforce.
  – U.S. Department of Education
  – U.S. Department of Labor
  – State Department of Transportation
  – State Departments of Education
  – State Departments of Labor
  – Public/quasi-public transportation agencies, authorities and corporations: e.g., transit agencies, port authorities, airport authorities, AMTRAK
    – The Workforce Initiative Now (WIN) program in Denver is an innovative partnership aimed at creating career pathways in the transportation and construction industries.
  – Local government: e.g., cities, towns, counties, tribes and tribal areas

• Education and research stakeholders:
  – Projected annual job openings are 68% larger than annual completions of related educational programs across selected transportation job groups.
  – Transportation research community: e.g., universities, non-profit organizations, Transportation Research Board
    – University Transportation Centers advance U.S. technology and expertise in the many disciplines comprising transportation through the mechanisms of education, research and technology transfer at university-based centers of excellence.
  – Post-secondary schooling accrediting and member organizations
  – Universities and community colleges
    – The Council of University Transportation Centers works to promote university research, education, workforce development, and technology transfer as essential to the nation’s transportation system. Their member universities each offer unique transportation programs.
  – Technical colleges and training institutes
  – Local technical assistance programs
  – High school career and technical education centers
  – K-12 municipal school systems
    – The transportation industry relies heavily on colleges and trade schools to steer new talent into transportation fields, however, the foundational STEM background must be introduced more effectively and much earlier in a student’s academic career.
    – Half of all STEM jobs don’t require a four-year degree and pay an average of $53,000, which is 10 percent higher than non-STEM jobs with similar education requirements.

Organizational Practices Supporting Workforce Stability and Growth

• In addition to developing new talent, fixing the workforce shortage will require organizations to retain and advance mid-level professionals.
• Many industries are contending with shortages of experts in scientific, technical, engineering, and math (STEM) specialties. Rather than revisit the well-known efforts of companies to recruit STEM talent, APQC turned the problem on its ear and asked: How can organizations leverage the experts they have while, at the same time, accelerating the rate of learning for new hires and mid-career employees?

Next Steps Opportunities

• Topic: Transportation Industry/University and Education Requirements for Workforce Development
• Purpose: Identify the challenges facing the transportation industry in terms of attracting individuals to the workplace and how to prepare the workforce for future leadership opportunities in the field of transportation. What is the industry doing to promote job growth and awareness? What steps are High Schools, Colleges and Universities undertaking to make students aware of opportunities in transportation and providing the education, preparatory, undergraduate and graduate studies needed to meet the demand? Is there a role for government to become more active in promoting private sector jobs in transportation?
• The primary issues addressed by this proposed seminar would include: (1) Awareness; (2) Promotion; (3) Education; (4) Private Industry View; (5) Public/Government’s Role; and (6) Public-Private Partnerships that are typically manifested through professional organizations – a critical outcome may be the identification of professional organizations that can carry the message forward in a unified way as they can touch on all six issues. The aforementioned six subject matter areas would serve as the basis for additional dialogue.