

The Future Needs of The Transportation Industry



■ Trade and Transportation

By Thomas O'Brien

There was a little bit of good news mixed in with some sobering reality at the National Transportation Workforce Development Summit held in Washington, D.C., in April. The summit identified gaps in our transportation workforce development efforts and offered solutions from a wide range of participants from all parts of the transportation industry, government and the education sector.

The summit is part of a national effort led by the U.S. Department of Transportation and Council of University Transportation Centers designed to identify solutions for a workforce crisis stemming from a number of issues. These issues include changing demographics and a generation of students ill-prepared to plan for, design and develop the transportation systems of the future.

Despite the economic downturn, the need to develop and improve those transportation systems has not diminished. Good roads, bridges and tunnels as well as our rail, port and airport infrastructure systems keep us competitive. However, budgets at state departments of transportation have been decimated

by a lack of funding and reduced gas taxes. Budget shortfalls combined with lengthy environmental project reviews make it harder to not only get new projects done, but also to maintain what we already have in place.

Several speakers at the Summit also raised concerns about the workforce needed to build the systems once money is available. Jeff Strohl of the Georgetown University Center on Education and the Workforce painted a picture of an industry in flux and in crisis. Today, the majority of transportation jobs are filled by males without any postsecondary education. Strohl argued that this will have to change. By 2018, 49 percent of all job openings in transportation (some 1.7 million jobs) will require some form of postsecondary education. This is part of the 30 million jobs that will require some college coursework or a postsecondary certificate to keep the U.S. economy moving forward over the same time period. California alone is expected to need 650,000 graduates of college-level programs to keep pace. Skill-based technological change is also raising the levels of required skills, even for high school level jobs.

Part of the problem is that the up-skilling of the education sector lags the modernization of the workplace. We have also not done a good job of anticipating the needs of a workforce that is highly mobile and with high rates of turnover. That suggests a need for educators and the industry to coordinate on both traditional degree programs as well as re-skilling opportunities as part of professional development programs.

Transportation Center, a partnership of USC and CSULB. For past articles in this series, please go to [www. ccpe.csulb.edu/IndustryArticles.](http://www.ccpe.csulb.edu/IndustryArticles))

To accomplish that, we who are part of the world of trade and transportation need to do a couple of things. Another summit speaker, futurist Frank A. Stasiowski, provided a useful road map for getting started. First, we should study demographics to better understand where our future students and future workers will be coming from, redefining both educational offerings and jobs as a result. Both retirees and Gen Y'ers may create a demand for more part-time work, something akin to a casual workforce. Both will also demand new ways of being educated and trained involving various kinds of platforms in the classroom, on the road, and via the Web and social media.

Both industry and the education sector also need to adopt a culture of permanent change. For those of us in education in particular, this can be a challenge. But we need to understand who our competitors are and stay one step ahead of them, including embracing new forms of technology that meet the workforce needs of the industry.

We also need to recruit industry as a partner in making transportation an attractive option for students choosing college and career pathways. Transportation issues are covered in the U.S. history curriculum in the form of westward expansion and rail development; in geometry when discussing shapes in building airplanes and bridges; and language classes provide opportunities to introduce the language of transport in all its various forms. But our state has the highest student-to-guidance counselor ratio in the nation: 900 to 1, compared with the national average of nearly 280 to 1. That's a problem.

It's clear that the challenges stretch from the K-12 classroom to the workplace. A poor economy makes it harder for all of us to respond. But doing nothing is not an option. The future of the transportation industry is at stake.

(Dr. Thomas O'Brien is the director of research for the Center for International Trade and Transportation at CSULB and associate director for Long Beach Programs for the METRANS