



PUTTING RESEARCH TO WORK

BRIEF

21st Century Workforce Development Summit

Baby boomers—those individuals born from the late 1940s through the early 1960s—are now reaching retirement age. Currently this group of people makes up as much as 50 percent of transportation agency employees.

What's the Problem?

Over the next 20 years, 76 million baby boomers will be eligible for retirement. But with only 46 million Generation Xers following behind them, this possible mass exodus could create a sizable knowledge gap in the work force. This would pose serious problems for public sector transportation agencies as well as the consultants and contractors who help them carry out their missions. Compounding the problem is that fewer young professionals are getting into transportation-related fields because of increasing competition from other industries.

Research Objectives

Representatives from seven state departments of transportation, 15 educational institutions and six consulting firms gathered in Wisconsin December 8-9, 2008, for the 21st Century Workforce Development Summit. Hosted by the National Center for Freight and Infrastructure Research and Education, or CFIRE, the summit convened to begin exploring these work force issues and to identify actions that could be taken to address the upcoming work force needs specific to the transportation industry.

Methodology

Prior to the summit, a planning committee made up of representatives from eight states, the FHWA and eight educational institutions developed an agenda and lists of speakers and invitees for the summit. State authorities and universities were then surveyed to gain a greater insight into transportation needs and work force issues. Survey results were provided to summit participants before the meeting.

The summit itself was designed to be informal and interactive. Three speakers provided basic information at the conference:

- Clark Martin of FHWA provided an overview of the transportation work force, challenges facing agencies in meeting work force needs, and programs now in place at the federal level helping states to meet those needs.
- Julius Rhode of Knowledge Bank, Inc. spoke about the changing demographics and ethnicity of the work force, and the challenges that those changes will bring.
- CFIRE Director Teresa Adams reviewed the changes that are taking place in the transportation industry and how those changes will impact the work force of the 21st century.

A panel of practitioners then provided their views and experiences in response to the three presentations and initiated discussion among the participants. Afterward, small groups discussed and reported on the skills that will be needed as a result of this changing work force. To conclude the summit, a panel of educators spoke about efforts currently under way to address changing needs in professional education for the transportation industry.

Results

Some of the conclusions reached by participants included:

- As new materials and processes are developed and as new concerns present themselves, broader technical skills will be required.
- An increased need to outsource will require greater interpersonal, negotiation, conflict resolution and measurement skills.

Investigator



"These are timely and important issues to be looking at and addressing, both on a regional and a national level."

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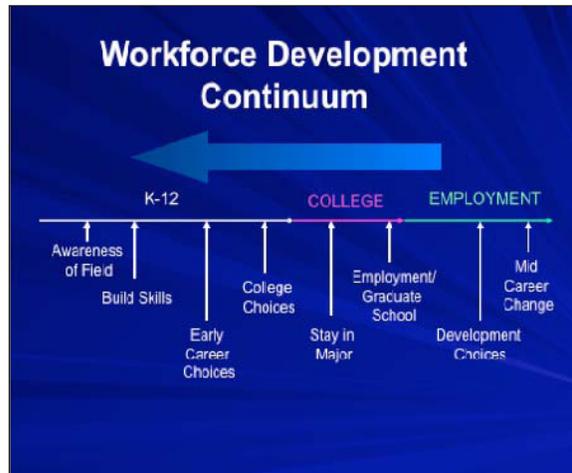
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"I was pleased with the attendance and participation at the summit, and I am hopeful that the information gained will help WisDOT and other agencies address some of the problem areas we are experiencing."

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While employers have traditionally focused their efforts on locating and training workers post-college, a shrinking pool of workers suggests the need for employers to get involved earlier in the work force development continuum, shown above.

- A broader range of financial management skills will be required to keep pace with a greater concern for financial efficiency and a wider range of financing options.
- Transportation agencies will need to become more attractive to a changing work force demographic.
- Efforts must be made to encourage interest in math and science among students in grades K-12.

Implementation and Benefits

Participants defined five areas as next steps needed to address the work force issues:

1. **Professional Development**, including distance learning, university networking for collaboration and AASHTO's role for ongoing communication among state DOTs.
2. **Partnering**, including an examination of the benefits of partnering arrangements between agencies, educational institutions and the private sector.
3. **Recruiting and Retention** as well as an earlier entrance on the work-life cycle by promoting an interest in math and science among K-12 students.
4. **Research** to continue identifying current and future work force needs and to help identify innovative approaches to meet those needs.
5. **Changes in Leadership**, including developing a culture that encourages leadership, empowering staff, building a change management mentality throughout the organization and educating leaders.

Some agency initiatives that are already taking place include:

- Engaging in innovative efforts to recruit new workers through internships and co-op programs, pregraduation hires, relationships built through career fairs, expanded scholarship programs and offshore recruiting.
- Using expanded training and work enrichment to retain workers.
- Implementing in-house technical and supervisory/management training programs, mentoring programs and partnerships with educational institutions.
- Speaking at schools and career/job fairs, encouraging students to take an interest in transportation, math or science.

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