

BUILDING THE 21ST CENTURY WORKFORCE: CREATING A NATIONAL STRATEGY

BREAKOUT SESSION 2

TRANSPORTATION EDUCATION AND TRAINING COMMITTEE (ABG20)

Minutes of the Breakout Session on January 17th, 2008

Topic: Increase the Supply: Making Transportation a Career Choice and Improving Retention of Engineering Students in College

Facilitator: *Vicki Glenn*, VHB Inc.

Reporter: *Emily Parkany*, Noblis

Introduction

- The facilitator invited all the participants to the breakout session on “Increase the Supply: Making Transportation a Career Choice and Improving Retention of Engineering Students in College.” This was followed by brief introductions. About 15 people participated in the session.
- The facilitator prepared several PowerPoint slides to start the discussion.
 - First, a few highlights from an English survey and report, “Public Attitudes to and Perceptions of Engineering and Engineers, 2007” were presented. These highlights included:
 - Limited awareness, understanding, knowledge of how engineering and engineers contribute to society and quality of life.
 - Profession defined as manual, routine, science oriented, structured, serious, and boring.
 - Young people’s knowledge and awareness of engineering is car commercials.
 - Positive response from those related to/friends of engineers
 - Opportunities and Partners
 - Career days (equipment operator, designer, planner, environment sciences, etc.)
 - Multidisciplinary school projects on transportation
 - Tours
 - Educate school counselors
 - Magnet schools
 - Advertising / marketing
 - Mentoring / shadowing
 - Summer programs
 - Financial support
 - Transportation professionals
 - Public, private sector

- Academia
- UTCs
- Labor unions
- Industry associations (ASCE, ITE, etc.)
- Foundations (Eno, etc.)
- TRB

Discussion

Participants were eager to contribute to the discussion. They first brainstormed about additional opportunities and ways to perform outreach. The conversation then segued into ideas related to “How do we communicate with younger people?” At the end of the session, participants reported short-term recommended actions and then additional, longer term actions. The results of the discussions are summarized on the session’s break-out slides and repeated again here.

Additional Opportunities

- Science and Math Scores—talk to NEA, teachers, school boards
- After-school programs for older kids
- Boys and Girls Clubs
- Engineering State—high school students for a week to get them active in projects
- National Science Teacher’s Organization
- AASHTO Initiatives
- Future Cities Competition (middle school)
- Speaking at schools
- Public involvement programs—engage kids in the planning process (GIS, visualization, coloring book)
- Students to be beta-testers on surveys
- When constructing near a school, go into the school—cubic yards of excavation

Additional Venues for Outreach

- SAFETEA-LU funding—Highway Construction Career Days
- National Transportation Week (May)
- “Put the brakes on safety” (AASHTO)
- Community Planning Month (APA, October)
- www.washto-x.org (Nov. event on attracting, hiring, and retaining top professionals)
- Get high school students involved as participants in TRB
- Engineers without Borders (students traveling to help with international development programs)
- Dept of Labor—Workforce 3, what Labor is doing with different organizations—some transportation initiatives
- APWA Training and Education materials

How Do We Communicate with Younger People

- You Tube presentations?
 - Minnesota bridge
 - Traffic control devices at intersections
 - Pavement
- Classroom presentations need to be fast-paced, interactive, hands-on (“get a feel for what it is like”)
- Kids need to learn teamwork/have to compromise
- Kids working on environmental studies (sustainability)
- Media outlets for communicating with children
- TV shows about cops, doctors, lawyers—not about engineers
- Go! Online Magazine—transportation (Iowa State University)
- ASCE’s Curious George

Recommended Actions (Short-Term)

- Post/coordinate with Workforce Development website (OPCD) TransWorkforce—central repository of ideas—process of how to set up
- Get the database to cover the things that are out there
- Documentation of best practices
- Email Vicki Glenn with links of resources that you think are important (vglenn@vhb.com)
- Inventory money (Education, Labor) so that people know of resources
- Already an Access database of much of this—to be shared with breakout and workshop participants
- Calendar of events (federal-sponsored and additional) (Starting with Engineer’s Week, Transportation Week...)
- Coordination at federal and state level—requires a policy decision (Association of State Training Coordinators, Tech Transfer, for example)

Additional Recommendations (Longer-Term)

- Ultimately a matrix to lead you to the real information—a one-stop shop
 - Matrix topics include: age, field of activity, classroom vs. experiential
- Need to evangelize the site (constantly)—SHARE the information! Get the users to use the site.
- Feedback—find out what is useful on the site, experience with using shared resources
- Brochures for teachers with calendars of events—E-Week, Transp. Week, etc.

Summary

The breakout session provided some imaginative ideas about where and how to provide outreach and education about transportation careers. Some highlights include latching onto established events on the calendar (Engineering Week, National Transportation Week [May]) and finding ways to communicate better with students (You Tube presentations, giving kids hands-on

experiences, invoke hot topics like environment and sustainability). In the short term, the idea is to collect transportation career information websites and disseminate them. [We hope to use the committee's website for this.] In the longer term, we need to share this information/evangelize the site.