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CTRE's mission is to develop and implement innovative methods, materials, and technologies for improving transportation efficiency, safety, and reliability, while improving the learning environment of students, faculty, and staff in transportation-related fields.

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CTRE director's message: Developing the work force

Attracting and training the transportation work force of the future is one of CTRE's roles, a role that is vital to Iowa and to the nation. It is taking on new importance in light of the projected transportation workforce shortage. As many baby boom-era transportation workers begin to retire in the next 5–15 years, the transportation workforce shortage is estimated at 40–50 percent. The impact could be huge if steps aren't taken now. Considering all facets of transportation including shipping, vehicle sales, fuel, repair, and roadway planning and construction, transportation is a billion dollar industry in Iowa alone.

Attracting and training the workforce of the future is a continuum ranging from early awareness of the field through college to continuing education. For students that have already decided to pursue a transportation-related career, CTRE's research projects support about 80 students each semester. These students will be in the transportation workforce in a year or two. For high school students, CTRE hosted a career fair in February 2004, "Moving Toward Your Future: Careers in Transportation" to expose students to the broad range of opportunities in the transportation field. At the other end of the continuum, CTRE is developing a program in construction-related English training for Iowa's growing Hispanic work force coupled with "survival Spanish" for English-speaking supervisors.

Careers in Transportation sprang from a small pilot project in 2003, funded by a grant from Iowa State University. The pilot, conducted at North High School in Des Moines, was so successful that a planning committee was created for this year's event. Debbie Witt, a Master's degree student in transportation, coordinated the event with CTRE staff support from Marcia Brink, Michele Regenold, and Duane Smith. The planning committee included representatives from the Iowa Department of Transportation, Des Moines Area Community College, which offers a construction technology degree, local high schools, associations, and several companies. (See related article on page 1 of *MTC Asset*.)

The program in construction-related English training for Hispanic workers is the brainchild of Augusto Canales, a Ph.D. student in construction engineering. While Hispanic workers have long been in the construction work force in border states, their presence on Midwest road crews is a relatively new phenomenon. Construction companies report that, in some cases, 50 percent of their field crews are Spanish speaking. Canales's research discovered that on a jobsite, a bilingual "link person" is critical to communication.

Canales developed a "Rosetta stone" curriculum that shows pictures and construction-related word in both languages. In developing this curriculum, he worked closely with construction companies that employ Hispanic crews. He interviewed the management, supervisors, and crews with respect to communication issues. He then developed and delivered a pilot

program that was well received by Hispanic workers. Next steps include courses in survival English and survival Spanish, stepping up to supervisor for Hispanic craft workers, and translating/adapting into Spanish guidelines for portland cement concrete (PCC) placement recently developed by the PCC Center located at CTRE.

PCC Center fulfills its mission

As the PCC Center fulfills its mission to advance the state of the art of portland cement concrete (PCC) pavement technology, more staff are needed. Recently, three new people have joined the PCC Center's staff.

Bob Steffes, recently retired from the Iowa DOT, will work as a program manager and research engineer. He will oversee operations in the recently constructed PCC lab at Iowa State University. After earning a BS in mechanical engineering, Bob worked overseas for Dowell Shlumberger in the well cementing section. In 1986, he joined the Iowa DOT Office of Materials, retiring in 2003.



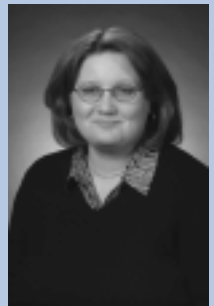
Bob Steffes

Bryan Zimmerman, recent graduate of Des Moines Area Community College's construction technology program, is a new research technician in the PCC lab. He's a key staff member in a multi-state pooled fund study examining construction and mix optimization.



Bryan Zimmerman

Denise Wagner works as a secretary for the center half days at CTRE and half days at Iowa State University's Town Engineering Building (with Bob and Bryan). She received her bachelor's degree from the University of Northern Iowa in 1981 in social work.



Denise Wagner

Because of the center's growth, Mark Anderson-Wilk, long-time report editor with CTRE, will begin managing the center's publications full time, including the concrete paving notes, crew field references, and project technology transfer summaries.