

Rutgers wants to star in transportation

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RUTGERS: Tucked into the crowded core of the nation's most densely packed state, amid highways and rail lines and within reach of major air and sea hubs, Rutgers aims to turn its locale to its advantage and become a leading authority on transportation.

"New Jersey is probably the most transportation-oriented state in the United States, certainly in the Eastern United States," said Martin E. Robins, director of the Alan M. Voorhees Transportation Center at Rutgers' Edward J. Bloustein School of Planning and Public Policy.

The state's freight system makes it a major crossroads for domestic and global commerce, the tourism industry makes it a weigh station for tens of millions of visitors annually and its dense population makes the necessary fact of getting to school and work a process of near-epic proportions five days out of every week.

"We have five times more drivers per mile of road than the national average," said Ali Maher, director of Rutgers' Center for Advanced Infrastructure and Transportation.

Robins and Maher are key players in a budding plan to give Rutgers a national voice in transportation policy, planning and technology.

The two centers -- each formed in 1998 -- have already carved out expertise in varied areas such as designing sensors that monitor the condition of bridges and tunnels to training transit workers how to

identify activities that suggest terrorism plots.

The Voorhees Center handles a fast-growing roster of projects for local, state, regional and federal government, from studies that could benefit the rail-freight industry to outlining strategies for improved pedestrian safety. The center also is home to the National Transit Institute, which trains tens of thousands of transit workers from around the nation annually in a wide range of topics.

In recent months, the institute was asked to train workers for the Democratic and Republican conventions in Boston and New York City and to make some of its educational materials available to officials preparing for the 2004 Summer Olympics in Athens.

CAIT -- a component of Rutgers' School of Engineering -- is developing technologies that enable transportation authorities and commuters to swap information about roadway conditions in real time and help first-responders detect biologically hazardous materials. CAIT operates a laboratory that is devising a new "recipe" for durable, smoother pavement that officials in Rhode Island, Pennsylvania and Delaware as well as New Jersey will use to meet new federal standards.

While the two centers have accrued national recognition and considerable expertise in transportation-related fields, they operated on separate tracks until recently.

The centers will combine their strengths and collaborate with Rutgers schools and institutes that boast expertise in business, energy, urban planning, demographics, mathematics and computer science, under a plan Rutgers leaders contend will raise the university's profile nationally.

"Our final goal is to make Rutgers 'the transportation university,'" said Philip Furmanski, executive vice president for academic affairs at Rutgers. Transportation -- with its varied scientific, technical, physical and social dimensions -- lends itself to an interdisciplinary approach, Furmanski said.

Rutgers is still in the early stages of forging the internal and external alliances that could enable the university to outshine rivals in California and Texas, which Maher called "trailblazers" in transportation policy and technology.

Much of the universities' success in those states grew from their partnerships with government agencies, Maher said.

Rutgers has already moved to deepen its ties to the state and federal departments of transportation as well as the Federal Aviation Administration and the U.S. Department of Homeland Security, Furmanski said.

Discussions between Robins and Maher have already borne fruit. In recent weeks, Robins advised Maher that Voorhees' National Transit Institute received a \$600,000 federal grant for a new program to train transit workers how to recognize and report activities that suggest terrorism is afoot.

That program dovetails nicely, Maher told Robins, with CAIT's newly created computer model for evacuating rail stations and other buildings.

The more they talk, Robins said, the more potential they see.

"Our agenda keeps evolving," Robins said. "The possibilities are endless." But so, it would seem, are the needs.

The intensity of freight and passenger transportation in New Jersey makes it a likely target for terrorists, state and national security officials have warned. New Jersey's transportation infrastructure is among the oldest in the nation, according to Maher.

The state's Transportation Trust Fund is on the brink of insolvency, a blue-ribbon commission advised by the Voorhees Center found last year.

The state's fragmented transit system for disabled riders discourages many employable workers from seeking jobs, according to a Voorhees Center study. Such problems are challenges for which Rutgers is poised to find solutions, Furmanski said.

"New Jersey becomes the laboratory," he said.