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Director's Message

At the 2008 Northeast Regional Meeting of the American Road and Transportation Builders Association on Dec. 11, I was enthralled by the presentation of Jack Schenendorf. Schenendorf is vice chairman of the National Surface Transportation Policy and Revenue Study Commission.

I'd heard him speak before about the dire situation of our transportation infrastructure, the nearly empty federal trust fund, and the need for significant increases to the federal motor fuel tax. What fascinated me about Schenendorf's presentation this time was his eloquent but no-nonsense approach to the current financial situation. He stated that the public has a "bridge to nowhere" perception of transportation infrastructure, meaning that the public sees these projects as pork.

Schenendorf went on to explain that this perception blocks the political will to raise the motor fuel tax, which he sees as the major obstacle to a

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Is this bridge strong enough? Local students test their engineering skills at the 2008 Maryland TRAC Design Build Challenge. See page 3 for the full story.

The NTC Director's New Nat'l Role

Dr. Andrew Farkas, director of the NTC, is the new president of the research and education division for the American Road and Transportation Builders Association. While the ARTBA position won't require him to leave Morgan, move to D.C., or answer 3 a.m. phone calls, it will give Dr. Farkas a role in shaping and influencing federal

transportation policies and programs. These programs include those that finance research and education activities at the state and federal level.

For 106 years, ARTBA has been the industry leader in growing and protecting the federal transportation market. The organization is also dedicated to increasing federal funding

of transportation programs. Its members include over 3,000 public transportation officials, educators, contractors, finance companies, and design firms.

Much of Dr. Farkas' one-year term will focus on educating ARTBA's leaders as they campaign for the reauthorization of the Safe, Accountable, Flexible, and Efficient Transportation

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Praise & Prizes for NTC Student of the Year

“She’s ambitious, active, organized, hardworking, and accountable.”

- Dr. Mansoureh Jeihani

“She’s a very good student, very mature student.”

- Dr. Anthony Saka

“Her research holds great promise for addressing issues in environmental impact assessment of transportation projects.”

- Dr. Andrew Farkas

With praise like that for her academic efforts, it’s no surprise that Angelica Daniel was named the NTC’s Student of the Year at the Council of University Transportation Centers’ awards banquet. As such, Daniel received a \$1000 stipend, a certificate, and an all-expenses-paid trip to the Jan. 10 ceremony in Washington, D.C.

“The honor and recognition are the most exciting part of the award for me,” Daniel said. “Throughout my academic career I have never received an award of this magnitude. It has been a humbling experience.”

“I nominated her,” said Dr. Mansoureh Jeihani. “She has been one

of the best students in my classes and [research assistants on] my project.”

And Daniel’s impressive resume helps explain her success. She received her B.S. in civil engineering from Morgan in 2002. While she pursues a master’s degree from the Department of Transportation and Urban Infrastructure Studies, she works as a transportation engineer for the Maryland Transportation Authority. Her resume includes membership in the American Society of Civil Engineers, the Intelligent Transportation Society of America, and the student chapter of the Institute of Transportation Engineers in which she serves as president. In addition to all of these activities, Daniel has participated in faculty-led research on transportation demand modeling and green infrastructure studies.

“She proved to be a hardworking, organized, and good team player,” said Dr. Jehani, the principal investigator on the project *Trip Generation Studies for Special Generators*. “Angelica helped me out in preparing the survey questionnaires...She also helped in getting permission from different developments to install our devices,



Angelica Daniel is no stranger to the NTC’s publications: her work as a student researcher was profiled in the 2007-08 Annual Report.

which was a difficult job.”

Daniel has also been researching the links between aquatic ecology, toxicology, and transportation infrastructure for the NTC and Morgan’s Estuarine Research Center.

Said Dr. Farkas, the NTC’s director, “She’s playing a major role in developing initiatives and research.”



New Financial Aid for Transportation Majors

As we announced in the 2007-08 Annual Report, an undergraduate program in transportation systems will soon be offered at Morgan. While the program doesn’t start until Fall 2009, a new financial aid source has been established for students who choose the major: a \$1000 per year book scholarship. All students enrolled in the transportation systems program can apply for the scholarship, but the award is limited to 25 students a year. For more information, please contact Alice Williams at 443-885-3348.

Weeks of work are put to the test as increasing amounts of weight are added to the bridges.



TRAC Contest Builds Skills & Confidence

Over fifty teens tested their bridge-building abilities at the 2008 Maryland TRAC Design Build Challenge. Hosted by the NTC and Morgan State University, the Nov. 1 event is part of a national effort by the American Association of State Highway and Transportation Officials (AASHTO) to encourage students to pursue careers in transportation and civil engineering through hands-on activities.

With their supplies limited to glue and craft sticks, the contest participants were charged with designing and building the lightest bridge that could carry the most weight. The students, who ranged from grades 7-12, competed according to grade level.

A team of physics students from Thomas Stone High School in Waldorf, Md., were the day's big winners. As the Level 3 (grades 11 and 12) victors, the Thomas Stone team earned a \$300 savings bond for each of its members, a trophy for their school, and the chance to represent the state of Maryland in the National TRAC Bridge Building Contest in Bedford, Pa., in May 2009. Their 20-inch, 7.53 oz. bridge was able to support 59 lbs.



The Level 3 winners from Thomas Stone High School in Waldorf, Md.: (from left to right) John Carr II, Joshua Cushenette, and Nailah Baukman.

First Place Winners

Level 1 (7th & 8th grade)

Lindale Team 1:
Kunthaka Nilaweera
Lindale Middle School

Level 3

(11th & 12th grade)
A.P. Students of Thomas Stone: Joshua Cushenette, John Carr II, Nailah Baukman
Thomas Stone High School

Level 2 (9th & 10th grade)

INDian Builders: Chelsea Moss, Grace McClintock, Chelsea Conner
Institute of Notre Dame

Over fifty students participated in the 2008 Maryland Design Build Challenge. They represented 11 schools in Anne Arundel, Baltimore City, Baltimore, Charles, Howard and Worcester counties.



Dr. Farkas' New National Role with ARTBA

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Equity Act: A Legacy for Users (SAFETEA-LU).

Why SAFETEA-LU Matters

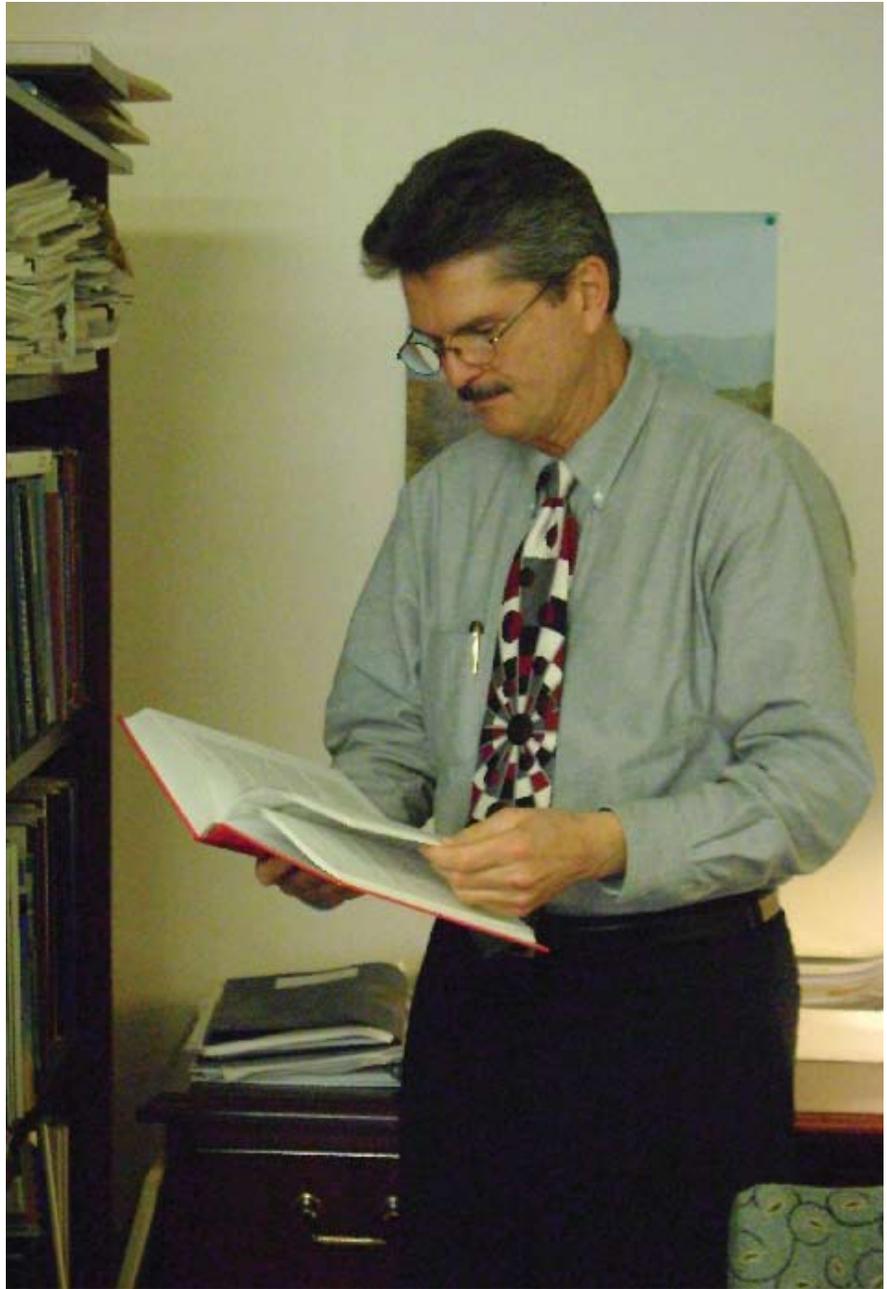
The act, which expires this year, authorizes the funding, construction, and maintenance of roads and transit systems, as well as research and other support activities. Dr. Farkas is especially interested in ensuring that the new version of the law increases funding for transportation research and education programs. As director of Morgan's NTC and a long-time transportation faculty member, he knows how funding affects what students and researchers can accomplish.

"Transportation research addresses many economics-related issues confronting our nation," he said. "Not only does research solve intractable problems, but when it involves students, it educates those that can solve the problems of the future."

SAFETEA-LU was authorized at \$286.5 billion, but less than 1 percent went towards transportation research. In comparison, the U.S. Department of Agriculture spent almost 3 percent of its 2001 budget on research and development. The next version of SAFETEA-LU is expected to be funded at \$450-500 billion, and it is hoped that research and education funding will be at least proportional to that increase.

Bad Economy Good for Transportation?

The current economic situation may bring that proposed funding increase closer to reality. President Obama's \$825 billion stimulus plan, expected to be signed in mid-February, includes money for highway and public transportation projects. Obama also voted in support of SAFETEA-LU in 2005, and declared throughout the presidential campaign that strengthening and investing in America's transportation infrastructure would be a



"As president of ARTBA's research and education division, I will work with other university transportation centers to advise ARTBA that research and education should be critical elements in the nation's transportation programs," said Dr. Farkas.

top priority for his administration. He has also proposed creating a National Infrastructure Reinvestment Bank that would expand and enhance existing federal transportation investments.

In his Jan. 3 weekly address, Obama, affirming his position, said, "To build a 21st century economy, we must engage contractors across the nation to create jobs rebuilding our crumbling roads, bridges, and schools."



The National Transportation Center Research Symposium



MORGAN STATE UNIVERSITY • SCHAEFER ENGINEERING AUDITORIUM

Feb. 25, 2009 • 8am-12pm

Topics Include



Non-recurring incidents and traffic recovery time



How "second parenthoods" alter the travel patterns and needs of elderly African Americans



Vehicle-infrastructure integration

Industry professionals, researchers and students:

Learn the methods that can improve transportation access, efficiency, and management.



Presentations

Trip Generation Studies for Special Generators
Dr. Mansoureh Jeihani

A Statewide Mapping of Recurring Congestion Corridors
Dr. Anthony Saka

Development of a Prototype Vehicle-Infrastructure Integration System for Real Time Traffic Management
Dr. Anthony Saka and Dr. Ronnie Chowdhury (Clemson University)

Line-Stripping Life-Cycle Analysis
Dr. Young-Jae Lee

Estimation of Traffic Recovery Time for Different Flow Regimes on Freeways
Dr. Anthony Saka and Dr. Mansoureh Jeihani

The Influence of Custodial Care of Children Among Elderly African Americans on Their Travel Behavior and Transportation Needs
Dr. Robert Smith and Dr. Stella Hargett

A free event. Call 443-885-3666 to register.

Director's Commentary

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sustainable surface transportation program. In order to renew infrastructure, create jobs, and foster economic growth, he believes that the funding issue has to be taken to the American people through talks at civic organizations, churches, and other forums.

As educators, we can assist in this approach. A few of us have suggested that education regarding transportation funding and economic development has to be wider and deeper due to the public's unfamiliarity with how transportation is financed. As the 2007 bridge collapse in Minneapolis showed, the costs and benefits of infrastructure only become apparent when something goes wrong.

Our task as educators is to develop the means and mechanisms to broaden education programs so that the American public can make informed decisions about sustaining our transportation systems. This newsletter documents the efforts the NTC is currently pursuing and, as always, we welcome your thoughts and commentary.

- Dr. Andrew Farkas

NEW RESEARCH PROJECT: Line-Striping Life-Cycle Analysis Phase II

Principal Investigator:

Young-Jae Lee

Sponsoring Organizations:

Maryland State Highway Administration (SHA),
Morgan State University

This study will identify the procedures, materials, and application rates for optimizing the performance of line striping throughout the SHA's highway network.

Specifically, this research will:

- measure the degradation rate of striping materials;
- provide an objective means to measure the life-cycle of a particular line-striping material based on roadway characteristics and other functional classifications; and
- measure the cost associated with field evaluations and internal data collection.

For a full description of this project, and a complete list of the NTC's ongoing and completed projects, please visit www.eng.morgan.edu/~ntc.



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