University Transportation Centers Program

Seventh Annual Student of the Year Awards

January 12, 1998

Transportation Research Board 77th Annual Meeting
Omni Shoreham Hotel
Washington, D.C.

Sponsored by the U.S. Department of Transportation

Developments in transportation technology over the decades have caused the world to expand, not in dimension, but in terms of accessibility. Transportation has always played a major role in society. The degree of efficiency in getting people or goods from one point to another has a role in determining the health of an economy and the general well-being of a nation.

Recognizing the need to encourage efficient movement in all transportation sectors of this Nation, the U.S. Department of Transportation established the University Transportation Centers Program (UTCP) – Title 49, U.S. Code Appendix 1607c–in 1987. The Program originally established and operated transportation Centers in 10 Federal regions. The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) reauthorized UTCP for an additional six years and added four Centers. The 14 Centers have become focal points for addressing transportation issues and for attracting talent, resources, and facilities for promoting individual initiatives and scientific innovation in a variety of transportation modes and disciplines.

At the Seventh Annual Student-of-the-Year Awards ceremony, the U.S. Department of Transportation, through UTCP, honors the most outstanding student from each of the participating Centers for his or her achievements and promise for future contributions to the transportation field.

This year's selections were based on student candidates who have been enrolled at a UTC university and received UTC support for at least two semesters since the beginning of the program. Evidence of accomplishments in the areas of technical merit and research, academic performance, professionalism, and leadership were required.

The University Transportation Centers is proud to announce the following winners of the 1997 Student-of-the-Year Awards.

University Transportation Centers Program

Students of the Year

James Chang
Region I
New England

Francisco Rodriguez Dosal
Region II
New York/New Jersey

L. James French, III
Region III
Mid-Atlantic

Jason A. Gregory
Region IV
Southeast

Richard R. Wallace
Region V
Great Lakes

Dean B. Taylor
Region VI
Southwest

Megan Mehaffey
Region VII
Mid-America

Eugene Calvert
Region VIII
Mountain-Plains

Kara Maria Kockelman
Region IX
California

Jennifer Barnes
Region X
Northwest

Stacy D. Goad
Mack-Blackwell National Rural Transportation Center, University of Arkansas

Cecilia M. Kelnhofer-Feeley
National Center for Transportation and Industrial Productivity, New Jersey Institute of Technology

Carmen N. Hayes
National Center for Transportation Management, Research, and Development, Morgan State University

Andrew A. Miller
National Center for Advanced Transportation Technology, University of Idaho

Region I

The Massachusetts Institute of Technology (Lead)
Harvard University
University of Connecticut
University of Maine
University of Massachusetts
University of New Hampshire
University of Rhode Island
University of Vermont

James Chang graduated in 1995 with a bachelor of science in computer science and engineering from Massachusetts Institute of Technology. He continued his studies in the transportation engineering and planning program at the University of Massachusetts, Amherst, earning a master degree in civil engineering in 1997. His thesis research involved the integration of public transportation management systems into the capital improvement planning process. Mr. Chang currently works as a transportation planner for the Pioneer Valley Planning Commission in West Springfield, Massachusetts.

Region II

City University of New York (Lead)
Cornell University
New Jersey Institute of Technology
New York University
Polytechnic University
Princeton University
Rensselaer Polytechnic Institute
Rutgers University
State University of New York
Stevens Institute of Technology
University of Puerto Rico
University of Virgin Islands

Francisco Rodriguez Dosal is a candidate for the master of science degree in the transportation program at the University of Puerto Rico (UPRM). Mr. Rodriguez Dosal received a bachelor degree in both surveying and topography in May 1992 and a bachelor of science in civil engineering in December 1994, from the University of Puerto Rico. He is an active member of the Institute of Transportation Engineers (ITE) and the College of Engineers and Survey of Puerto Rico (CIAPR).

As a graduate research assistant, he has worked on several projects in the area of geometric and operational improvements of rural roads and developed methods to evaluate the performance and endurance of flexible pavements. The research findings of these projects have been presented in at least twelve recognized scientific forums in Puerto Rico, the Caribbean, Chile, and the United States. The technical papers have been published by TRB and the Journal of the College Engineers and Surveyors of Puerto Rico.

Currently, Mr. Rodriguez Dosal is working with Jusor Corporation, Highway and Bridge Division, on a major highway reconstruction project on the island. Mr. Rodriguez Dosal is happily married and has a three-year-old daughter.

Region III

The Pennsylvania State University (Lead)
University of Pennsylvania
University of Virginia
Virginia Polytechnic Institute
and State University
West Virginia University

L. James French, III, received his Ph.D. in engineering, specializing in transportation engineering, from West Virginia University in December, 1997. As a Ph.D. student, Dr. French conducted an evaluation of the potential of automated license plate reading equipment for planning applications. Dr. French received his master of science degree in civil engineering from the University of Pittsburgh in 1993.

Dr. French is a member of the Institute of Transportation Engineers, American Society of Highway Engineers, and American Society of Civil Engineers. Dr. French was awarded the Civil Engineering Outstanding Teaching Assistant for 1994-95 and 1995-96, is a member of Tau Beta Pi and Chi Epsilon National Honor Societies and in 1996, was an Eno Foundation fellow.

Dr. French currently works as an engineering scientist at West Virginia University, and his areas of expertise include transportation planning and economics, signalized intersection design and operations, intelligent transportation systems, and highway operations and engineering.

Region IV

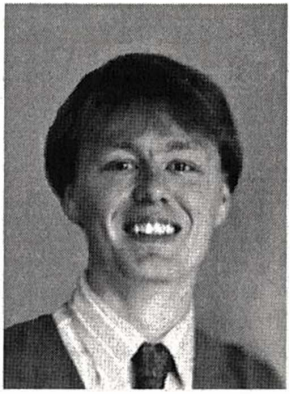
University of Tennessee (Lead)
Duke University
Georgia State University
North Carolina A&T University
North Carolina State University
University of Florida
University of Kentucky
University of North Carolina, Chapel Hill
University of North Carolina, Charlotte
University of South Florida
Vanderbilt University

Jason A. Gregory is a candidate for the master of science degree in civil engineering at the University of Tennessee. Mr. Gregory received his bachelor of science degree in civil engineering from the University of Memphis in May 1996. He is an active member of the Institute of Transportation Engineers (ITE) and the Intelligent Transportation Systems of America (ITSA) and has served as past president of both of these organizations. Mr. Gregory is also a student member of the American Society of Civil Engineers (ASCE) and a member of the Tau Beta Pi Engineering Honor Society.

Mr. Gregory's professional areas of interest include geometric design and traffic operations. He is currently working as a graduate research assistant on a transportation model for small urban areas. The Tennessee section of ITE recently selected Mr. Gregory for the Outstanding Student Paper Award for "A Comparison of New-Traditional and Conventional Neighborhood Street Designs."

Region V

University of Michigan (Lead)
Central State University
Michigan State University
Michigan Technological University
Northwestern University
Wayne State University



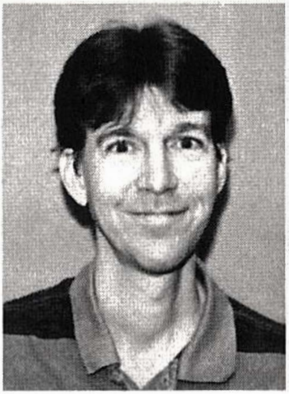
Richard R. Wallace is a Ph.D. candidate in urban, technological, and environmental planning in the College of Architecture and Urban Planning at the University of Michigan (UM). He received the certificate in intelligent transportation systems (ITS) from UM in 1994 and his master's degree in technology and science policy from the Georgia Institute of Technology in 1991. Mr. Wallace is a member of the UM's ITS America student chapter and served two years as the University's student liaison to the Association of Collegiate Schools of Planning. In addition, he teaches courses in quantitative methods to planning students at UM.

Until recently, Mr. Wallace managed evaluation projects involving public transportation providers in southeast Michigan, including the Suburban Mobility Authority for Regional Transportation and the Ann Arbor Transportation Authority, projects with which he remains involved. Prior to this work, he spent two and one half years conducting evaluations of road-and highway-related ITS operational field tests for the University of Michigan Transportation Research Institute.

Mr. Wallace's current research interests include evaluation of transportation (and other planning and policy) projects, impacts of intelligent transportation systems, and transit decentralization. At this time, he is pursuing a transit-related dissertation focusing on the intersection of political and technical issues in public transportation organization and provision.

Region VI

Texas A & M University System (Lead)
Texas Southern University
University of Texas, Austin



Dean B. Taylor received his bachlor of science degree in engineering from the University of Central Florida in May 1983. He worked as a Software Design Engineer for Texas Instruments from May 1983 through August 1990. He received a master of science degree in civil engineering from the University of Texas, Austin in May 1992. Mr. Taylor's thesis was entitled "Analysis of Vehicular Fleet Operation on Alternative Fuels: Natural Gas and Propane," for which he developed a model to analyze cost-effectiveness of fleet conversion to alternative fuels. Mr. Taylor is a Ph.D. candiate in civil engineering at the University of Texas, Austin. He is in the final stages of completing his dissertation, entitled "Contributions to Bicycle-Automobile Mixed-Traffic Science: Behavioral Models and Engineering Applications" and will receive his degree in May 1998. Mr. Tayor has also performed extensive research in the area of suburban transit access and bicycle interfaces. This work entailed investigating factors affecting the use of the "bike and ride" mode using discrete mode choice models and a survey instrument for data collection.

Mr. Taylor has presented papers at two TRB Annual Meetings, the 1994 ITE Annual Meeting, the 1992 TexITE Summer Meeting, and the 1994 Pro Bike/Pro Walk Conference. He has published papers in Transportation Research Record, various conference proceedings, Environmental Planning Quarterly, and the UT Austin Committee to Assess the Bush Administration's National Energy Strategy Final Report. He has also produced several research reports for the Center for Transportation Research at The University of Texas at Austin. Dean has been a member of the TRB Committee on Bicycling (A3B07) since 1993. Mr. Taylor was the first Director of Project MPO for the Texas Bicycle Coalition from 1992 through 1994. The project was developed in response to the two ISTEA policy directives of citizen participation and increasing bicycle use.

Region VII

University of Nebraska, Lincoln (Lead)
Iowa State University
Kansas State University
Kansas University
University of Missouri, Columbia
University of Missouri, Lincoln
University of Missouri, Rolla

Megan Mehaffey is a Ph.D. candidate in systematics and ecology at the University of Kansas (KU). She received her M.S. in crop science from North Carolina State University and her B.S. in agricultural science from Murray State. Ms. Mehaffey's technical expertise in soil analysis was an important component in a research project co-sponsored by the Mid-America Transportation Center and the Kansas Department of Transportation (KDOT), entitled *Study of Wetlands Mitigation Projects in Kansas and Development of Cost-Effective Methods and Procedures for Future Projects*. In addition, she prepared written materials and made a presentation for a Wetland Mitigation Workshop held in April 1997 for KDOT environmental review staff. Ms. Mehaffey's strong interest in environmental policy, especially the intersection of how science can be used to encourage sound environmental policy and law, was highly beneficial in her work as a graduate teaching assistant for a senior-level class on environmental impact assessment at KU.

She is currently serving as a graduate teaching assistant in the KU Department of Biology, where she prepares ecological field trip tours, leads tours, and lectures on various aspects of Kansas ecology. Ms. Mehaffey was awarded a 1997 Sigma Xi grant to support her dissertation work.

Region VIII

North Dakota State University (Lead)
Colorado State University
University of Wyoming
Utah State University

Eugene Calvert, P.E., is a candidate for the master of science degree in civil engineering at the University of Wyoming in Laramie. Mr. Calvert received his bachelor of science degree in civil engineering from the University of Wyoming in May 1977. He returned to the University in 1994 after serving the transportation community for seventeen years as a private consultant and county highway engineer. Mr. Calvert is a registered professional engineer in Colorado and holds dual registration as a professional engineer and land surveyor in Wyoming. He is a member of the Tau Beta Pi National Engineering Honorary Society.

Mr. Calvert has served on several national transportation-related committees and participated in the development of two National Association of County Engineers (NACE) publications in 1995 and an ASCE-HITECH research project in 1997. In 1996, through Mr. Calvert's assistant, the FHWA-LTAP publication *Field Guide for Unpaved Rural Roads* was developed.

Mr. Calvert currently works for the Wyoming Technology Transfer (T^2) Center at the University of Wyoming as senior engineer and training director. His duties include providing technical assistance and training to local, state, and federal highway personnel. He has made technical presentations at the FHWA Region 8 County Road Advisor's Conference for the past four years.

Region IX

University of California, Berkeley (Lead)
University of California, Davis
University of California, Irvine
University of California, Los Angeles

Kara Maria Kockelman, P.E., will finish her doctorate in Transportation Engineering at the University of California, Berkeley, this year. She holds a master of science in civil and environmental engineering and a master of city and regional planning, both from Berkeley. Ms. Kockelman is a licensed professional engineer and spent two years as a Peace Corps volunteer in the Andes Mountains of Ecuador, where she managed the construction of rural sanitary infrastructure systems. As an undergraduate in civil engineering at Berkeley, she was awarded the University Medal, given to the "most distinguished graduating senior."

Ms. Kockelman's doctoral research describes and estimates an economically rigorous system of seemingly unrelated Poisson regression equations for a set of out-of-home activity-participation demands by households. Her master's thesis examined travel behavior as a function of accessibility, land-use mixing, and land-use balance. She is the author of several published papers on topics such as comprehensive rates of return for a high-speed rail system in California, housing values as a function of travel consideration, and various models of travel behavior.

Ms. Kockelman will be presenting her paper on the effects of driver and vehicle characteristics on traffic-flow relations at this year's TRB conference.

Region X

University of Washington (Lead)
Oregon State University
Portland State University
University of Alaska-Fairbanks
University of Idaho
Washington State University

Jennifer Barnes is a doctoral student in the transportation program of civil engineering at the University of Washington. She received her MSCE from the University of Washington in 1996 and BSCE from Iowa State University in 1989. Her transportation experience, prior to entering graduate school, includes both transit operations and consulting in transportation planning as well as engineering. Since entering graduate school in 1994, Ms. Barnes has worked on a variety of research projects for the Washington State Department of Transportation (WSDOT), with a primary focus on the economic analysis and priority programming of nontraditional transportation solutions. In her research, she has worked in the areas of priority programming, benefit-cost analysis, transportation demand management, access management, mode choice modeling, and peak spreading analysis. For her master's thesis, she reviewed and refined the methodology and ranking algorithm for quantifying and prioritizing proposed transportation projects in the WSDOT Mobility Program. She is currently beginning her dissertation work in which she intends to utilize stated preference surveys and statistical methods to develop traveler utilities for inclusion of nontraditional travel choices in Puget Sound regional mode choice modeling.

In addition to her research duties, Ms. Barnes has worked as a graduate teaching assistant for urban transportation planning classes in the department of civil engineering. She has been active in a variety of statewide and regional transportation planning forums and is a member of the Puget Sound Regional TDM Strategy Advisory Committee. Her other awards include the George Krambles Transit Scholarship, an American Public Works Association scholarship, and a grant to participate in the Engineering Scholars Workshop, sponsored by the National Science Foundation.

Mack-Blackwell National Rural Transportation Study Center

University of Arkansas

Stacy D. Goad is a candidate for the master of science degree in civil engineering at the University of Arkansas (U of A). Ms. Goad received a bachelor's degree in civil engineering from the U of A in December 1994. After working as a contact engineer for Exxon's Baytown Refinery in Texas, she returned to the University of Arkansas for her graduate degree. As a graduate research assistant, Ms. Goad's research has focused on transportation materials, and she has worked on several projects involving Superpave asphalt mixture design and performance testing of asphalt pavements. She plans to continue her education at the University of Arkansas by obtaining a doctor of philosophy in engineering with an emphasis in transportation.

Ms. Goad is currently the director of the Women In Engineering (WIN) mentoring program at the U of A and a member of the Institute of Transportation Engineers (ITE). She has also been an active member of the American Society of Civil Engineers (ASCE), the Tau Beta Pi honor society, and the Chi Epsilon civil engineering honor society. She received the Eisenhower Fellowship in 1996 and in 1997 was named the William R. Hearst Doctoral Fellowship recipient.

National Center for Transportation and Industrial Productivity

New Jersey Institute of Technology

Cecilia M. Kelnhofer-Feeley is a candidate for dual master of science degrees in transportation planning and environmental policy studies at New Jersey Institute of Technology (NJIT). Ms. Kelnhofer-Feeley received her bachelor of science degree in science, technology, and society, with a minor in economics, also from NJIT. She is an active member of the Institute for Transportation Engineers (ITE), a member of the NJIT Graduate Student Association, and is in the process of developing a student chapter of Women's Transportation Seminar.

As a research assistant with the National Center for Transportation and Industrial Productivity (NCTIP), Ms. Kelnhofer-Feeley is responsible for researching county, regional, and state statistics for transportation studies, analyzing multi-modal data, and developing *Commodity Flows-1993* executive summaries for all 21 New Jersey counties as well as a report for the North Jersey Transportation Planning Authority.

Ms. Kelnhofer-Feeley's professional areas of interest include analysis and planning aspects of transportation, specifically integrating transportation systems with urban and regional considerations, such as land use, economics, and the environment.

National Center for Transportation Management, Research, and Development

Morgan State University

Carmen N. Hayes was born and raised in Washington, DC, where she currently resides. She began her educational journey at Morgan State University, where she obtained a B.A. in English in 1994. Immediately following her B.A., she continued her studies at Morgan State University and earned an M.S. in transportation studies in 1997. While at Morgan State University, she served as an officer in the Conference of Minority Transportation Officials, Intelligent Transportation Systems, and the Institute of Transportation Engineers. In her final year of graduate school, she worked as a graduate assistant and participated in a study conducted by the Maryland Motor Vehicle Administration in conjunction with Morgan State University. This involved an intensive study of high-risk drivers and the various licensing and re-licensing procedures, which are practiced in the United States.

Shortly after graduating from Morgan State University, Ms. Hayes participated in extensive research at Virginia Tech, dealing with Automated Highway Systems on Interstate 81 between Christiansburg, Virginia, and Roanoke, Virginia. In her spare time, she enjoys reading non-fiction and mystery novels.

National Center for Advanced Transportation Technology

University of Idaho

Andrew A. Miller received his master of science degree in electrical engineering from the University of Idaho in December 1996 and his bachelor's degree in electrical engineering from the University of Idaho in May 1994. He is a member of the Institute of Electrical and Electronics Engineers (IEEE).

Currently, Mr. Miller works as a research engineer for the National Center for Advanced Transportation Technology (NCATT). He is working on a project for the Federal Railroad Association (FRA) on locomotive energy management with energy storage. He recently presented a paper on the preliminary results of the FRA project at the North American Power Symposium (NAPS).

Mr. Miller spent a summer at the National Renewable Energy Lab (NREL) working on a project related to the use of induction machines in wind energy production. He also was a teaching assistant for a junior level machines lab.