



University Transportation Centers

*10th Annual Student  
of the Year Awards*

***Transportation Research Board  
80th Annual Meeting***

**Omni Shoreham  
Washington, D.C.**

**January 8, 2001**

*Sponsored by the*  
**U.S. Department of Transportation**

## WELCOME

Welcome to the 10th Annual Student of the Year Awards ceremony, sponsored by the U.S. Department of Transportation. Each year at the annual winter meeting of the Transportation Research Board, the Department honors the most outstanding student from each participating University Transportation Center for her/his achievements and promise for future contributions to the transportation field. Selection is based upon accomplishments in such areas as technical merit and research, academic performance, professionalism and leadership.

The University Transportation Centers program is administered by the Research and Special Programs Administration, with funding from the Federal Highway Administration and the Federal Transit Administration. This year, continuing the tradition of One DOT, the Department will for the third time also honor an awardee from the Air Transportation Centers of Excellence, sponsored by the Federal Aviation Administration.

# University Transportation Centers Program

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 plays a pivotal 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 the country, the U.S. Department of Transportation established the University Transportation Centers (UTC) program in 1987 (Title 49, U.S. Code Appendix 1607c), which provided for the establishment and operation of 10 transportation centers, one for each of the 10 federal regions.

Since that time, the UTC program has expanded to include 33 centers, as authorized by the Transportation Equity Act for the 21st Century (TEA-21) enacted by Congress on June 9, 1998.

TEA-21 authorizes up to \$194.8 million for grants to establish and operate up to 33 UTCs throughout the U.S. in FY 1998-2003.

The mission of the UTCs is to advance U.S. technology and expertise in the many disciplines comprising transportation through the mechanisms of education, research and technology transfer.

TEA-21 also established education as one of the primary objectives of a UTC, institutionalized the use of strategic planning in university grant management, and reinforced the program's focus on multi-modal transportation. All UTCs are required to match federal funds dollar for dollar.

The UTC program is managed by the Office of Innovation, Research and Education of the Research and Special Programs Administration, U.S. Department of Transportation.

## Air Transportation Centers of Excellence

Congress authorized the Air Transportation Centers of Excellence in 1990 to assist the Federal Aviation Administration (FAA) with conducting research on critical strategic issues pertinent to developing and maintaining a safe and efficient air transportation system.

These centers now serve as a network of national resources to advance U.S. technology and expertise in aviation-related disciplines through education, training, basic and advance research, information dissemination and technology transfer.

Funding for basic research at centers is provided by the sponsoring organization through a cooperative agreement; these funds are matched dollar for dollar by non-federal sources. Joint funding initiatives solidify long-term partnerships that extend from 3-10 years. Thereafter, each center is expected to be a self-supporting national resource.

Since 1992, center partners have supported more than 150 aviation-related research projects reflecting a \$35 million level of effort. The centers are managed by the FAA.

# University Transportation Centers

## *Students of the Year*

**Daniel Ryan Abedon***University of Rhode Island***Shirley E. Clark***University of Alabama***Eulouis Cleckley***North Carolina A&T State**University***Aleek Datta***Rutgers University***Robert Doe***Assumption College***Kimberly R. Doyle***Colorado State University***Jennifer Farver***Massachusetts Institute of Technology***Frances Griffith***University of Arkansas***Candace Renee Johnson***Morgan State University***Willie Brad Jones***Mississippi State University***Geoffrey Judd***University of Idaho***Thomas J. Kimpel***Portland State University***Jack Kłodzinski***University of Central Florida***David Kosnik***Northwestern University***Kenrick C. Layne***New Jersey Institute of Technology***Kimberley Dawn Lewis***Marshall University***Randy Lynn Mayo***University of Missouri-Rolla***Sarah Moses***Purdue University***Thomas O'Brien***University of Southern California***Alyssa Reynolds***Montana State University***Stewart Robertson***University of Kentucky***Michael K. Sergi***University of Minnesota***Jerry K. Shadewald***Iowa State University***Karen Smilowitz***University of California, Berkeley***Jay J. Smink***San Jose State University***Sean M. Smith***University of Illinois at Urbana-Champaign (FAA Center of Excellence)***Odd J. Stalebrink***George Mason University***Kathleen Swindler***Northwestern University***Brenda Joyce Thompson***University of South Florida***Ellen Thorson***City University of New York***Darren J. Torbic***Pennsylvania State University***Curtis Wilson, Jr.***Texas Southern University***Kimberly R. Yandora***North Carolina State University*

## University of Rhode Island Transportation Center

### UNIVERSITY OF RHODE ISLAND

**DANIEL RYAN ABEDON** is a native of Warwick, Rhode Island, and a M.S. candidate in transportation engineering at the University of Rhode Island (URI). Mr. Abedon graduated with distinction from URI in December 1998, receiving his B.S. in civil engineering. As an undergraduate, he received the James Baldwin Scholarship and the Department of Public Works Scholarship. He has held internship positions with the Rhode Island Department of Transportation (RIDOT) and the U.S. Department of Transportation through the Summer Transportation Internship Program for Diverse Groups. He is a member of the National Civil Engineering Honor Society, Chi Epsilon, and a student member of the American Society of Civil Engineers (ASCE). In 1999, he had the honor of being selected to receive the first Fellowship offered by the URI Transportation Center. As a graduate student, he won the 2000 Regional Highway Engineering Exchange Programs (HEEP) Area I Student Presentation Contest for a presentation of his master's research in using traffic simulation as a tool for analyzing freeway route diversion strategies. This presentation also earned him runner-up to the winner honors at the 2000 International HEEP Convention. While at URI, Mr. Abedon has worked on two main research projects: (1) his master's thesis, The Analysis of a Route Diversion Strategy for the Providence Metropolitan Area Utilizing the Micro-Simulation Software, CORSIM; and, (2) The Investigation of the Necessary Components for the New URITC Transportation Systems Analysis Laboratory (TSAL). Mr. Abedon has recently accepted an employment offer from the Federal Highway Administration as an Intelligent Transportation Systems (ITS) Engineer. He will enter the FHWA Professional Development Program (PDP) and be stationed in Baltimore, Maryland.

## University Transportation Center for Alabama

### UNIVERSITY OF ALABAMA

**SHIRLEY E. CLARK** is currently completing her Ph.D. in Environmental Health Engineering, a degree sponsored by the Civil and Environmental Engineering Department at the University of Alabama, Birmingham (UAB), but which includes taking coursework in public health. She has a B.S. in Chemical Engineering from Washington University and an M.S.C.E. from UAB. Ms. Clark's dissertation research focused on the treatment

by filtration of stormwater runoff toxicants from critical source areas (maintenance yards, service stations, parking lots). Her research demonstrated the potential feasibility of using filtration for these areas without sacrificing the public safety need to drain water rapidly away from these source areas, especially streets and parking lots. Ms. Clark's expertise in stormwater toxicant treatment has enabled her to be selected as a post-doctoral researcher with U.S. EPA. Her post-doctoral research will focus on pollution prevention through the evaluation of building materials, including asphalt and concretes that are typically used in roadways, for their potential to leach toxicants into stormwater runoff. These results will then be available for urban planners and design engineers in order to assist them in selecting suitable materials that are both functional and more environmentally friendly. In addition, Ms. Clark has also assisted on a project involving the evaluation of the environmental and public safety aspects of transportation-related accidents involving hazardous substances. The results could then be used by emergency responders to improve preparations for this special type of transportation accident. She currently resides in Wilsonville, Alabama.

## Urban Transit Institute

### **NORTH CAROLINA A&T STATE UNIVERSITY**

**EULOIS CLECKLEY**, is a native of Atlanta, GA. He has served two consecutive terms as President of the Delta Nu Alpha Student Chapter 364 at NCA&TSU, a nationally recognized transportation fraternity as well as Secretary of the NCA&TSU Student Chapter of the Intelligent Transportation Society of America. He has organized many transportation related community activities, such as the "adopt a highway" program. He has also conducted information sessions at the local high schools as a recruitment tool for transportation majors. Mr. Cleckley has received various awards in recognition of his academic achievement, leadership and community service, which include the Transportation Incentive Award, the Southeastern Transportation Center Education Award, and Who's Who Among American Universities and Colleges. Mr. Cleckley participated in an internship with Wal-Mart in Laurens, SC for the past two summers. During his tenure with Wal-Mart, he was exposed to private fleet operations, vendor and consolidator relations and carrier/freight flow management. While interning, Mr. Cleckley took the initiative to influence the company to donate a \$1,000 scholarship gift to the transportation program at A&T. Upon graduation, he plans to pursue a career in transportation/logistics.

## Center for Advanced Infrastructure and Transportation

### RUTGERS UNIVERSITY

**ALEEK DATTA** was raised in Randolph, New Jersey. He graduated from the School of Engineering at Rutgers, The State University of New Jersey in 1999 with a B.A. in Civil and Environmental Engineering. He is currently pursuing his M.A. specializing in Transportation Engineering, is expected to receive his degree in 2001. As an undergraduate student, Mr. Datta worked for the Morris County Department of Public Works, located in Morristown, NJ where he provided support for transportation projects throughout Morris County. He has also worked for Purcell Associates, an engineering consulting firm located in Montclair, NJ, where he was part of a large-scale bridge inspection project. This project involved conducting bridge bearing and deck inspections on bridges along the New Jersey Turnpike, one of the most heavily traveled corridors in the state. Presently, Mr. Datta is a Graduate Fellow of the Center for Advanced Infrastructure and Transportation (CAIT). His primary research interest concerns Intelligent Transportation System (ITS) applications, specifically concerning the development of a high-level Advanced Traveler Information System (ATIS) Architecture for the State of New Jersey. Mr. Datta is a co-author of the paper titled "Modeling Route Choice Behavior Using Stochastic Learning Automata" to be presented at the Transportation Research Board's 80th Annual Meeting in Washington, D.C. in January 2001.

## Center for Transportation and Environmental Education for the 21st Century

### ASSUMPTION COLLEGE

**ROBERT DOE** is currently a senior at Assumption College in Worcester, MA. In May, 2001 he will receive his B.A. with a double major in chemistry and philosophy. He is originally from Norwood, Massachusetts, and occasionally spends his college breaks as a substitute middle- and high school teacher in nearby Dedham. Mr. Doe's interest in science and education made him an ideal candidate for the UTC-funded project "Student Conducted Studies of Catalytic Electrode Surfaces for Fuel Cell Applications" under the guidance of Dr. Brian Niece, professor of chemistry. As with all science projects supported by Assumption's transportation center, Mr. Doe's project is designed to make a contribution to the field as well as have applications in K-12 science curricula. Mr. Doe

worked through the summer learning to prepare and purify ionic liquids for use as electrolytes. He then began studies of copper reactions on gold electrodes in this new electrolyte. He has continued work on the project as an independent study beyond his normal course load, and is anticipating the arrival of a high school student to begin the educational phase of the project. After graduating from Assumption, Mr. Doe plans to attend graduate school in chemistry where he would like to focus on inorganic or organometallic projects. After graduate school, he intends to pursue applied industrial research for a while before turning to a career in teaching.

## Mountain-Plains Consortium (Region 8)

### **NORTH DAKOTA STATE UNIVERSITY, W/CONSORTIUM**

**KIMBERLY R. DOYLE, EIT**, earned her M.S. in Civil Engineering from Colorado State University, Fort Collins, and is ABET accredited. Her B.S. in Civil Engineering is from The University of North Carolina, Charlotte, and her Associate of Applied Science in Civil Engineering Technology is from Hudson Valley Community College, Troy, NY. Among her contributions as a graduate teaching and research assistant, Ms. Doyle load tested for a full scale model timber trestle railroad bridge; investigated discrepancies between controlled laboratory testing and field testing of railroad bridges, and co-authored three technical papers published in two international scientific journals. She also lectured on engineering and supervised laboratory work. A member of Tau Beta Pi, National Engineering Honor Society, and Chi Epsilon, National Civil Engineering Honor Society, Ms. Doyle was on the deans' list, chancellor's list, president's list and received the UNCC Spirit Award. Her professional experience involves work as a draftsman where she performed soil and on-site concrete tests, drafted engineering details for building and site plans and prepared exhibits. Her career path continued with engineer-in-training assignments with a professional engineer and continued to project structural engineer where Ms. Doyle designed framing and foundation layouts for residential and commercial projects as well as inspecting for design compliance, and was responsible for composing field reports and working with AutoCAD. A native of Defreestville, NY, Ms. Doyle is currently employed by EagleSpan Steel Structures, Inc., Loveland, CO, as a project structural engineer. Her responsibilities include designing primary and secondary elements for commercial steel buildings and bridges; administration and employment of specialty engineering software, and coordination of engineering projects with clients and engineering graphics.

## New England University Transportation Center (Region 1)

### MASSACHUSETTS INSTITUTE OF TECHNOLOGY, W/CONSORTIUM

**JENNIFER FARVER** is a doctoral candidate at Massachusetts Institute of Technology's Center for Transportation Studies. There she works in the Algorithms and Computation in Transportation Group under the supervision of Professor Ismail Chabini. Her Master's thesis is in the area of dynamic traffic assignment with an emphasis on analytical, continuous-time dynamic network loading and dynamic shortest paths algorithms for a particular class of input functions. She holds a B.A. degree from the University of California, Berkeley in Civil Engineering. Ms. Farver began her career in transportation as a co-op student at De Leuw, Cather and Company in San Francisco where she worked on the cost estimation, construction staging and stormwater pollution prevention aspects of the Carquinez Bridge Seismic Upgrade project. After completing her undergraduate work, she spent a summer as a research assistant at UC Berkeley's Pavement Research Center, working on the long-life pavement research study under the supervision of Professor John Harvey. During her first year at MIT, she worked with Douglas Lee at the Volpe National Transportation Systems Center on cost/benefit analysis of deployed Intelligent Transportation Systems projects. Ms. Farver holds an MIT Presidential Fellowship and has received several awards from the Society of Women Engineers and the American Society of Civil Engineers. Throughout her academic career, she has taken on leadership roles in student government, faculty committees, and professional groups. Her hometown is Albany, NY.

## Mack-Blackwell National Rural Transportation Study Center

### UNIVERSITY OF ARKANSAS

**FRANCES GRIFFITH** is a candidate for the M.S. degree in Civil Engineering at the University of Arkansas, Fayetteville, where she received her BSCE in 1998. Since that time, Ms. Griffith has served as administrator of the Center for Training Transportation Professionals (CTTP), a technology transfer program of the Mack-Blackwell Rural Transportation Center. At CTTP she oversees all activities pertaining to the training, testing, and certification of highway and contractor personnel in quality assurance procedures for highway construction. She coordinates 32 classes per year in four subject areas, with total annual

enrollment of more than 600 students. In 2000 she was also responsible for the successful launching of a new inspection and certification program for materials testing laboratories in Arkansas. She is certified by the American Concrete Institute as a concrete field testing technician, grade 1. From 1997 to 1999 Ms. Griffith served as teaching assistant at UA in Civil Engineering 2113, Construction Materials. During this period she conducted research on the effects of horizontal and vertical forces on anchor bolts and presented her findings to the Arkansas Highway and Transportation Department. For her thesis research Ms. Griffith is comparing the performance of the Corelok™—a new automatic vacuum sealing method of measuring specific gravity of compacted asphalt core—with current AASHTO specifications. Ms. Griffith lives in West Fork, Arkansas, with her husband and their three children.

## **National Transportation Center MORGAN STATE UNIVERSITY**

**CANDACE RENEE JOHNSON** is a candidate for a M.S. in Transportation at Morgan State University. Ms. Johnson received her B.S. in Business Administration with a concentration in Management Information Systems from South Carolina State University (SCSU) in May 2000. Because of her outstanding undergraduate record, she has received a National Transportation Center scholarship to support her graduate education. During Fall Semester 2000, she assisted faculty of Morgan's Institute for Transportation in research activities. In the summer of 2000, Ms. Johnson was selected to participate in the SCSU School-to-Work Transitional Program in the Transportation Industry. She interned at the South Carolina Department of Transportation (SCDOT) where she was assigned to the Mass Transit Office. During this assignment with SCDOT's Mass Transit Office, she assisted with updating the 1999-2000 Commission Workbook for the upcoming year and prepared the Federal Transit Administration (FTA) Corrective Action for resubmission after a FTA audit. She also assisted the Program Management Staff with preparing contracts and made presentations for the Summer Transportation Institute in South Carolina, a FHWA sponsored summer program that exposes middle and high school students to careers in the transportation industry. Ms. Johnson is a native of Augusta, Georgia. She is the daughter of Ronald and Joanne Johnson. She has one older sister, Michelle.

## National Center for Intermodal Transportation

### UNIVERSITY OF DENVER WITH MISSISSIPPI STATE UNIVERSITY

**WILLIE BRAD JONES** quickly established himself as a top NCIT research assistant during his undergraduate studies at Mississippi State University (MSU). Mr. Jones was the research assistant for the NCIT sponsored project, "Developing a Standard Definition for Intermodal Transportation" where he independently identified positive and negative aspects of existing definitions for intermodal transportation and developed a clear, broad-based, definition.

Mr. Jones presented his research at the first session on intermodal transportation research at the Industrial Engineering Research Conference in Cleveland, OH, in May 2000. He is the lead author of the paper "Toward the Development of a Standard Definition of Intermodal Transportation," which is scheduled to appear in a special intermodal transportation issue of the Transportation Law Journal. His simulation analysis of the MSU transit system placed third at the Institute of Industrial Engineers Regional VII Student Conference at Louisiana Tech University in February 2000.

Additionally, Mr. Jones represented NCIT well in student recruiting presentations organized by the College of Engineering and the Mississippi Alliance for Minority Participation. Beyond being a key contributor and promoter of NCIT, Mr. Jones was the 1995 Outstanding MSU Honors Freshman, the 1997 Outstanding MSU African-American Honors Student, and the 1997 and 1998 Outstanding MSU African-American Engineering Student.

Additionally, he is a member of four honorary fraternities: Phi Kappa Phi, Golden Key National Honor Society, Mortar Board, and Alpha Pi Mu. Mr. Jones graduated top in his class of industrial engineering students with a 3.86 GPA and is now attending graduate school at George Tech.

## National Institute for Advanced Transportation Technology

### UNIVERSITY OF IDAHO

**GEOFFREY JUDD** received his B.S.A. and M.S. in Civil Engineering degree from the University of Idaho. Mr. Judd served as student chapter president of the Institute for Transportation Engineers (ITE) while attending UI. In that position, Mr. Judd helped chapter adviser Zaher Khatib organize a series of seminars between UI and Washington State University featuring guest speakers with a variety of expertise in transportation. He was also

on the student chapter team that captured second place in a Traffic Bowl held by the ITE Quad 2000 Conference. Mr. Judd is currently employed by consultants Kittelson & Associates, Inc. of Portland, Oregon. His current work involves analysis and report preparation for traffic impact studies and transportation system plans. His transportation interests are in the area traffic management and traffic control strategies. His M.S. thesis topic was linear optimization method for oversaturated arterials, a result of working on a research project with NIATT, funded by DOT's University Transportation Centers grant program . Judd was also the recipient of a TransNow fellowship He will be presenting his paper (coauthored with his advisor, Zaher Khatib), "Control Strategy for Oversaturated Signalized Intersections," at the 80th Annual Meeting of the Transportation Research Board. While at UI, Judd was also a member of the Track and Field Team and continues to compete in open class track and field events around the Northwest. His hometown is Bend, Oregon.

## Transportation Northwest (Region 10)

### UNIVERSITY OF WASHINGTON, W/CONSORTIUM

**THOMAS J. KIMPEL** grew up in Norman, OK and now considers Portland, OR his home. Mr. Kimpel received his B.S. in Environmental Design from to the University of Oklahoma, and a Master of Urban Planning degree from the University of Virginia. He is currently working on his Ph.D. in Urban Studies at Portland State University (PSU). Mr. Kimpel has been employed by the Center for Urban Studies as a Graduate Research Assistant for the past four years. He also works as a planner on a contract basis for the Mid-Willamette Valley Council of Governments and the Cowlitz County Department of Building and Planning. Mr. Kimpel and another graduate from PSU recently started a business named Spatial Logic that provides custom GIS and data analysis services. Next year Mr. Kimpel will teach at PSU as well as serve in the capacity of Research Associate. His research interests include transportation, GIS and econometric modeling. His personal interests include snow boarding, fishing and live music. Upon completing his Ph.D., he will seek employment in academia or with a government agency and will continue to build a client base for Spatial Logic.

## Center for Advanced Transportation Systems Simulation

### UNIVERSITY OF CENTRAL FLORIDA

**JACK KLODZINSKI** is a candidate for the Ph.D. degree in Civil Engineering at the University of Central Florida. Mr. Kłodzinski received his M.S. in Transportation Engineering and his B.S. in Civil Engineering from UCF. Mr. Kłodzinski's excellent academic performance enabled him to be selected for the Center for Advanced Transportation Systems Simulation (CATSS) Scholarship. CATSS also offered a Transportation Essay competition for the CATSS scholarship awardees in which Mr. Kłodzinski ranked the highest amongst the other essay submitters. Mr. Kłodzinski is currently employed by UCF as a graduate research assistant whose duties include: project supervision; data collection and analysis for toll plaza simulation, and calibration and analysis of TPSIM toll plaza simulation model. In January 1998, Mr. Kłodzinski presented a research paper at the Transportation Research Board "TRB" Annual Meeting entitled, "Impacts of Toll Collection on Vehicle Emissions". He also presented a research paper entitled, "Evaluating the Improvements in Traffic Operations at a Real-Life Toll Plaza with Electronic Toll Collection" during the January 1997 TRB Annual Meeting. Jack's hometown is Orlando, Florida and his hobbies and interests are independent research and analysis, the environment, production of successful collectible conventions, bicycling, and computers.

## Infrastructure Technology Institute NORTHWESTERN UNIVERSITY

**DAVID KOSNIK**, a native of Northbrook, IL, is a sophomore computer engineering student enrolled in Northwestern's McCormick School of Engineering and Applied Science. Mr. Kosnik has worked for the Institute since shortly after matriculating at Northwestern in 1999. Among his accomplishments, he has developed innovative computer server software which autonomously publishes infrastructure data collected from the Institute's continuously remotely-monitored infrastructure projects on the World Wide Web. While his work to date has focused on remote crack monitoring near construction projects, he is now moving to expand this application to include Institute projects monitoring bridges and other infrastructure, as well as to include additional types of condition monitoring sensors. This will have the effect of allowing the monitoring of infrastructure projects remotely from any site having Internet access, greatly decreasing communications

costs and problems, and greatly increasing the opportunity for productive sharing of information among technical professionals of various agencies, and even the general public. Mr. Kosnik has also developed for the Institute applications for the Palm Computing platform which assist in the configuration of and provide diagnostic capabilities for remotely-monitored bridge sensor networks.

## National Center for Transportation and Industrial Productivity

### NEW JERSEY INSTITUTE OF TECHNOLOGY

KENRICK C. LAYNE arrived at NJIT from a ten-year career in the construction industry. He will complete his M.S. studies in Transportation Engineering in December 2000, and begin his Ph.D. studies in the fall of 2001, with a specific interest in transportation management. Interspersing higher education with work experience is a common cultural path in Guyana, from where Mr. Layne emigrated in 1993. Mr. Layne "wrote the City and Guilds of London Exam" in Building and Civil Engineering while working as a draftsman. After graduation as an engineering technician, he became a site inspector, moving up to site supervisor, remaining in the construction industry through his return to college in 1984. After first obtaining a Diploma in Civil Engineering, he received his bachelor's degree in Civil Engineering from the University of Guyana in 1994, where he was involved in research on atmospheric pollution. Since his arrival in the U.S., Mr. Layne has pursued studies in environmental engineering towards a career in transportation. His current research involves the application of automatic control theory to freight transportation, especially in NJ. He spent a semester working on an NSF-sponsored project to develop a control strategy for freight movement, using the simulation model CORSIM to simulate the roadways at Port Newark and Elizabeth. His prior research included collection of vehicle count data for use in traffic management. Having worked in almost every capacity of the construction industry, he looks forward to being able to apply that experience in the field of transportation. Mr. Layne is currently a resident of East Orange, NJ.

## **Nick J. Rahall, II Appalachian Transportation Institute**

### **MARSHALL UNIVERSITY**

**KIMBERLEY DAWN LEWIS** worked at Marshall University as a Secretary in the Engineering Department for nearly a year after completing her undergraduate studies. She provided exemplary administrative support during the time the strategic plan for the university transportation center was being formulated. She recognized the new transportation center as an exciting opportunity for a possible change in her career path. She resigned her MU position and enrolled in graduate school and was subsequently employed as the first GA for the new transportation center. As part of the selection process she submitted an essay titled "How The Appalachian Transportation Institute Changed My Life". She indicated how enlightening her experience at the transportation center has been in regard to a new appreciation for the level of sophistication that exists in our national transportation system, the challenges ahead in the 21st century and the need for multi disciplinary support. Furthermore, the transportation center experience helped her to "decide to pursue research related to stress and fatigue management for the transportation workforce as she completes her degree requirements in Counseling and Rehabilitation". Other criteria used for her selection included outstanding academic achievement, her leadership role with other student employees, and her enthusiastic approach to all of the transportation center activities. Ms. Lewis' hometown is Barboursville, WV.

## **University Transportation Center on Advanced Materials and Non-Destructive Testing Technologies**

### **UNIVERSITY OF MISSOURI-ROLLA**

**RANDY LYNN MAYO** is a native of Madison, IL. He received his B.S. in Civil Engineering (1979) and M.S. in Civil Engineering (2000) from the University of Missouri-Rolla. While attending UMR as an undergraduate he was enrolled as a co-op student with the Missouri Department of Transportation (MoDOT). After graduation, he took a full time position with MoDOT while working on his M.A. degree. He has held the positions of Construction Inspector, Structural Designer, Senior Structural Designer, Field Bridge Inspector, and Resident Engineer. In November of 1996 he was promoted to his current position of Area Engineer. Randy's

research at MoDOT demonstrated the feasibility of using externally bonded carbon fiber reinforced polymer to repair and retrofit deficient bridges in MO. Randy is a member of the American Society of Civil Engineers since 1984, when he also received his Professional Engineer's license. He is also a member of the National Society of Professional Engineers and the Missouri Society of Professional Engineers.

## Institute for Safe, Quiet, and Durable Highways

**PURDUE UNIVERSITY**

**SARAH MOSES** is pursuing a M.S. in Civil Engineering at Purdue University where she received a B.S. in Civil Engineering and completed Purdue's Cooperative Education program. She graduated from Kennedy High School in Bloomington, Minnesota. Ms. Moses is currently a Research Assistant studying tire/road interaction noise. Her contributions to this project include investigating methods of measuring and modeling the acoustic properties of pavements, aiding in the design of a tire/road test apparatus, and preparing a comprehensive literature review, including material selection, concrete mixture design, and construction of porous pavements. Ms. Moses presented some of her research at this year's SQDH Advisory Committee Meeting held at Purdue University. She has contributed to the education and technology transfer goals of the SQDH Institute through other activities. During the fall semester, she served as a mentor to an undergraduate sophomore engineering student who was one of the SQDH summer interns. Ms. Moses is co-author of a paper on low noise porous concrete pavements that has been accepted for presentation and, assuming positive reviews, publication in the Proceedings of the 7th International Conference on Concrete Pavements. She has made two poster presentations for this year's semi-annual meetings of the Center for Advanced Cement-Based Materials (ACBM). Headquartered at Northwestern University, the ACBM Center is a nation-wide NSF/industry sponsored research center that focuses on advancing the knowledge of cementitious materials. At the fall ACBM semi-annual meeting held at the University of Illinois, Sarah's presentation won first prize out of 25 posters. She is a native of Minneapolis, MN.

## National Center for Metropolitan Transportation Research

### UNIVERSITY OF SOUTHERN CALIFORNIA WITH CALIFORNIA STATE UNIVERSITY AT LONG BEACH

**THOMAS O'BRIEN** is a Ph.D. Candidate in Planning in the School of Policy, Planning, and Development at the University of Southern California. He is pursuing research on the institutional and contractual issues surrounding the deployment of transportation technology by multi-agency teams. Mr. O'Brien also holds a Masters in Urban Planning and Development from USC; and is a 2000 Eno Transportation Fellow, a 2000 Eisenhower Transportation Fellow and a 1995-96 Fulbright Scholar. Mr. O'Brien has contributed to a number of transportation policy studies in California, including an analysis of joint development opportunities around rail stations for the California High Speed Rail Authority. He is also the co-author of a Reason Foundation report on the feasibility of establishing a Transit Zone in Los Angeles' San Fernando Valley; and he is part of a USC evaluation team analyzing the effectiveness of a technology-based transit integration program for the California Department of Transportation. From 1992-95, Mr. O'Brien was Senior Planner for Handelman Katherman, Inc., a LA land use and environmental planning firm. He has also consulted to a wide array of clients on the incorporation of information and communication technologies into land use and economic development strategies, such as the Compton Blue Line TeleVillage for the LA County Metropolitan Transportation Authority. The TeleVillage offers a combination of place-based and telecommunications-based urban services in a traditionally underserved area of LA County. Thomas O'Brien was also project manager for the development of the City of Los Angeles Environmental Affairs Department Video Conferencing Center.

## Western Transportation Institute MONTANA STATE UNIVERSITY

**ALYSSA REYNOLDS** is a M.S. candidate at Montana State University. She received her B.S. degree from MSU in December 1999. Currently serving as student chapter president of the Institute of Transportation Engineers at MSU, Ms. Reynolds has been heavily involved in ITE for the past several years. Through her participation in the organization, Ms. Reynolds has been instrumental in ITE's association with MSU Kid's Day – a summer camp that allows community children to learn about campus

programs – and Expanding Your Horizons – a program intended to expose junior high age girls to math and science. Ms. Reynolds has also recently been involved with restructuring on-campus recruiting for Civil Engineering students and creating a Civil Engineering Career Fair. Additionally, she served one term as student chapter president for the Intelligent Transportation Society of America. Ms. Reynolds' interest in the transportation field began when she started working at the Western Transportation Institute in the summer of 1998. As a winner of both an Undergraduate and Graduate Fellowship from WTI, Ms. Reynolds has gained varied experience in number of different areas including: rural traffic management and rural ITS implementation. Her current work at WTI involves studying the applicability of intrusion detection at low volume, high-speed railroad crossings, a joint venture between WTI and the Oregon Department of Transportation. A native of Montana, Ms. Reynolds currently resides in Bozeman, the home of Montana State University.

## Southeastern Transportation Center (Region 4)

### UNIVERSITY OF TENNESSEE, W/CONSORTIUM

**STEWART ROBERTSON**, a graduate student at the University of Kentucky, is president of the student chapter of the Institute of Transportation Engineers. He is involved in research and writing activities at ITE where he also enjoys interacting with students and the engineering student council. Mr. Robertson has also served as a teaching assistant. His interest in transportation, especially highways and railroads, began in high school. After graduation, he entered UK as an engineering major and later decided to co-op with a firm that does transportation work, Skees Engineering, Inc. At Skees, Mr. Robertson learned how the business aspects of civil engineering are employed, how engineering companies must interact with customers, and on-the-job problem solving. It was after his tenure at Skees that Mr. Robertson decided to pursue his graduate degree in transportation engineering at UK.

## Intelligent Transportation Systems Institute UNIVERSITY OF MINNESOTA

**MICHAEL SERGI** is a candidate for a M.S. in Mechanical Engineering at the University of Minnesota. He received his B.S. in Mechanical Engineering from Carnegie Mellon University. Mr. Sergi is a research assistant in the Intelligent Vehicles Laboratory of the ITS Institute and has served as a teaching assistant with the Mechanical Engineering Department. He is currently working on a research project to develop a "virtual mirror" which involves implementing a rear view driver assistive display for a moving vehicle utilizing differential GPS, a geo-spatial database and range sensors. As part of his teaching responsibilities, Mr. Sergi developed the software for a web-based laboratory which serves as the baseline for the ITS Interdisciplinary Laboratory. This lab is used to provide students with a number of laboratory experiences with vehicle control, sensors, databases and traffic controllers. Using this lab, students were asked to write and test their own software to automate the steering and guidance systems of a truck so that it would drive around a test road that was digitized in a geo-spatial database. Not only has Mr. Sergi demonstrated the skills needed to successfully implement an advanced ITS project, requiring the integration of computers, sensors, vehicles, control systems and geospatial databases, but he also made it possible for many students to learn from the product of his success. The ITS Institute hopes to use the system as a model for future training of transportation professionals in the component technologies of ITS.

## Midwest Transportation Consortium (Region 7)

### IOWA STATE UNIVERSITY, W/CONSORTIUM

**JERRY K. SHADEWALD** received his M.S. in civil engineering from Iowa State University in December 2000. He has a B.S. in civil engineering from the University of Wisconsin – Platteville. During the past year, Mr. Shadewald has worked on adding advanced analysis and quality assurance modules to a GIS-transportation modeling interface for the Iowa Department of Transportation. The tools also incorporate a transportation economic analysis program. Other research he has worked on includes a preliminary exchange of data between a GIS system and a traffic simulation program and an investigation into the differences among traffic assignment algorithms used during travel demand modeling. Mr. Shadewald has made presentations of his

research at the University of California – Davis for the NSF Integrative Graduate Education and Research Training Program and at the Mid-Continent Transportation Symposium. He was also heavily involved in student-related transportation activities at Iowa State University and served as president of the Transportation Student Association. Mr. Shadewald and his wife, Laura, recently moved to the Kansas City area where Jerry has taken a position with HNTB Consulting Engineers. He is a native of Richland Center, Wisconsin.

## **University of California Transportation Center (Region 9)**

### **UNIVERSITY OF CALIFORNIA, BERKELEY, W/CONSORTIUM**

**KAREN SMILOWITZ**, originally from Livingston, NJ, is a PhD candidate in the Department of Civil and Environmental Engineering at the University of California, Berkeley. She is currently writing her dissertation on the design and operation of multimode, multiservice logistics networks under the direction of her advisor, Carlos Daganzo. Ms. Smilowitz received her undergraduate degree in Civil Engineering and Operations Research from Princeton University in 1995, and her M.S. in Civil Engineering from the University of California at Berkeley in 1998. She previously won the Women Transportation Seminar Scholarship from the Bay Area. She is the author of six papers and journal articles.

## Norman Y. Mineta International Institute for Surface Transportation Policy Studies

### SAN JOSE STATE UNIVERSITY

JAY J. SMINK is a prime example of how an able student can perform exceptionally well while taking the Graduate Transportation Management Program (GTMP) from a variety of different physical locations. As a Master of Science in Transportation Management (MSTM) student, he started taking courses from a Caltrans receive site in Orange County, CA. He then moved to Parker, CO with his wife Kris, where he successfully continues taking classes via the World Wide Web. Mr. Smink has both private and public sector transportation experience. His private sector experience includes managing air forwarding (including Department of Defense contracts), courier and cartage, custom distribution, and refrigerated warehousing. His current public sector experience is with the Regional Transportation District (RTD) in Denver, CO, where he is involved in a safety system review encompassing all aspects of department and division operations for RTD. The courses provided through the Master of Science in Transportation Management Program have given Mr. Smink the knowledge base to easily and effectively interact with regional transportation district management to ensure a quality and beneficial way to review safety systems. Mr. Smink is also active in numerous organizations including Delta Nu Alpha, Council of Logistics Management, APICS, the American Society of Transportation and Logistics, and the National Defense Transportation League.

## FAA Center of Excellence for Airport Pavements

### UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

SEAN M. SMITH is pursuing a M.S. at UIUC, under the guidance of Dr. William Buttlar. Sean received his B.S.C.E. at UIUC in 1998 in the area of Transportation Facilities in the Department of Civil Engineering. Mr. Smith is a research assistant for the FAA COE at UIUC, Research Affiliates Program. He is the lead graduate student working on the Rantoul NAC reflective cracking study, and is involved in field instrumentation, construction monitoring and sampling, and laboratory testing and evaluation. The goal of the project is to design, instrument and monitor innovative rehabilitation methods for general aviation airports, including: rubblization, saw and seal, and the use of an interlayer stress absorbing composite. Mr. Smith also has experience as a field engineer, having held a full-time position for the Claude H. Hurley

Company, where his primary duties were focused in the areas of construction quality assurance and geotechnical engineering. In addition to the Rantoul NAC project, Mr. Smith also developed a Visual Basic database program to store and retrieve the volumes of quality control data collected during the construction of the FAA NAPTF. Mr. Smith's graduate GPA is 3.93.

## National ITS Implementation Research Center

### GEORGE MASON UNIVERSITY WITH THE UNIVERSITY OF VIRGINIA AND VIRGINIA POLYTECHNIC & STATE UNIVERSITY

ODD J. STALEBRINK holds a Bachelor and Masters degree in business administration from Jonkoping International Business School in Jonkoping, Sweden. Currently, he is a fourth year Ph.D. student at George Mason University working on his dissertation. He intends to examine the effects that the adoption of accrual accounting practices has on the accountability and management of public transportation infrastructure assets. For the past several years, Mr. Stalebrink has been involved in numerous research projects and course developments in his positions of graduate research assistant and graduate teaching assistant. He has written numerous papers and held several presentations in the area of public sector financial management as it relates to transportation assets. These have primarily been focused on institutional issues involved in the implementation of intelligent transportation systems (ITS), and the management of road transportation resources. Mr. Stalebrink is currently involved in a number of activities relating to "Transportation Asset Management," which is an effort aimed at making transportation agencies more accountable for their actions, and more efficiently and effectively run. Transportation Asset Management is closely related to his interest in ongoing governmental financial accounting reforms.

**Midwestern Regional University  
Transportation Center (Region 5)  
UNIVERSITY OF WISCONSIN-MADISON,  
W/CONSORTIUM**

**KATHLEEN SWINDLER**, a native of Syracuse, NY, is currently a second year M.S./Ph.D. student in transportation at Northwestern University and a graduate of Bucknell University. Under the guidance of Dr. Richard G. McGinnis at Bucknell she focused her research on highway safety and graduated with honors. She produced a thesis on "Development of PIRUS, the Proactive Integration of Roadway User Safety" inspired by road safety audits. While at Northwestern, she has been working on NCHRP Project 3-59: Assessment of Variable Speed Limit Implementation Issues and is directed by Dr. Joseph L. Schofer. She is co-chair of the Northwestern Transportation Club and involved in other activities. Kathleen interned for three summers with the San Francisco Department of Parking and Traffic as a traffic-engineering intern, focusing on initiating the San Francisco Integrated Transportation System Management (ITMS) program. The city recognized her as Employee of the Quarter in the summer of 1999, the first summer intern ever to receive the distinction. She has a long-term interest in research and public service focused on highway safety, transportation policy and traffic engineering and she plans to earn her Professional Engineer's license. Kathleen is pleased to be recognized at the TRB Annual Meeting since TRB has been strong, positive influence on her commitment to transportation through TRB's commitment to the profession. This Meeting marks her sixth consecutive attendance.

**National Center for Transit Research  
UNIVERSITY OF SOUTH FLORIDA**

**BRENDA JOYCE THOMPSON** recently earned her M.A. in Economics at the University of South Florida with a 3.6 GPA. She received her B.A. in Interdisciplinary Social Science from the University of West Florida. Ms. Thompson began working for the Center for Urban Transportation Research (CUTR) in August 1998. As a graduate research assistant, she was selected to study issues pertaining to transit as part of the National Center for Transportation Research (NCTR). She has played an integral part in evaluating the performance of Florida's public transit systems. One of her projects examines the performance trends of Florida transit systems and compares them with peers from across the nation. This annual project uses FTA's NTD data to evaluate performance indicators, efficiency measures, and effectiveness measures. Recently, Ms. Thompson developed a transit handbook for the state of Florida. This informational handbook is being distrib-

uted to political and community leaders throughout the state to show the benefits of public transportation. Moreover, she has worked on several transit development plans. She managed a community's bus stop inventory data collection, data entry, and GIS programming. Ms. Thompson is also an active proponent of assessing community needs and wants. She has surveyed transit passengers about their satisfaction with transit, interviewed community leaders in order to provide better service to social service agencies' clients, and reported recommendations based upon qualitative and quantitative analysis. Ms. Thompson was recently hired to a full-time research faculty position at CUTR. Her primary duty is to manage the daily operations of the Performance Evaluation of Florida's Transit Systems project. She has also been working on reviewing a transit pilot program in Winter Haven, Florida. Her next endeavor will involve studying ways to increase transit ridership of non-users.

## University Transportation Research Center (Region 2)

### CITY UNIVERSITY OF NEW YORK, W/CONSORTIUM

**ELLEN THORSON** received her master's degree in Civil Engineering from City College this year and is now in the doctoral program in Civil Engineering at the Graduate School of the City University of New York. As a research assistant at the University Transportation Research Center, Ms. Thorson is working on a number of major projects dealing with freight transportation modeling. She has won several scholarships since starting at City College including the Advanced Institute for Transportation Education Graduate Scholarship (from the University Transportation Research Center) and the Helene Overly Graduate Runner-up Scholarship (from the New York Metropolitan Chapter of Women's Transportation Seminars). She has co-authored several papers including "An Investigation of the Relationships between Trip Length Distributions in Commodity-based and Trip-based Freight Demand Modeling", Holguín-Veras and Thorson, Transportation Research Record 1707. Ms. Thorson has followed several career paths including philosophy, law, and biomechanics, before coming to Transportation. While these previous paths did not lead to a career that she found personally rewarding, intellectually challenging, and socially beneficial, she is now confident that transportation engineering will. She also has found that in pursuing these other professions she has developed skills which are invaluable to a transportation engineer. She is specifically interested in teaching and research in the area of freight transportation modeling.

## Mid-Atlantic Universities Transportation Center (Region 3)

### PENNSYLVANIA STATE UNIVERSITY, W/CONSORTIUM

**DARREN J. TORBIC** is a Ph.D. candidate in the Department of Civil and Environmental Engineering at Penn State and a research assistant at the Pennsylvania Transportation Institute (PTI). He has a M.Eng. degree (1995) and B.S. degree (1993) in Civil Engineering, both from Penn State. Mr. Torbic also has a B.S. degree (1993) in Physics from Westminster College. For his dissertation, Mr. Torbic is examining the fundamental relationships between rumble strip dimensions and bicyclists = perceptions of ride comfort and the controllability of a bicycle. At PTI, Mr. Torbic has conducted research in the following areas: rumble strip design, evaluation of advanced traveler information systems, safety effectiveness of installing turn lanes for at-grade intersections, congestion management, truck size and weight issues, highway cost allocation, and bicycle and pedestrian trail-highway crossings. Mr. Torbic is manager of the Center for Traffic Operational Analysis (CTA) at PTI. The primary goal of CTA is to address problems of traffic operational quality and capacity, focusing on stochastic traffic modeling. He has demonstrated excellence in his graduate studies in both academic and technical research activities. Mr. Torbic's hometown is Sewickley, PA.

## Southwest Region University Transportation Center (Region 6)

### TEXAS A&M UNIVERSITY, W/CONSORTIUM

**CURTIS WILSON, JR.** was born in Missouri City, Texas, and is a graduate student at Texas Southern University. Currently he is pursuing a M.S. in Transportation Planning and Management. He has chosen to focus on the area of Planning Methodology. His future plans are to pursue a J.D. degree of a Ph.D. in Philosophy. Mr. Wilson believes this will allow him to teach young professionals with interest in the planning and transportation field. Presently, he is employed with the fourth fastest-growing county in the country, Fort Bend County, TX. His position is Project Coordinator in the Community Development Department. Some of his projects include city planning, planning and monitoring \$450,000+ of real estate development, capital improvement, researching design/zoning standards, and site plan development. Mr. Wilson received his B.S. from Prairie View A&M University in Civil Engineering. He serves as a mentor, instructor, and graduate of the Boys Rites of

Passage Program at Wheeler Avenue Baptist Church. This program encourages young males in lifestyle skills, scholarly pursuits, and professional endeavors. Mr. Wilson's membership and leadership also include his current position as President of the Institute of Transportation Engineers and the Conference of Minority Officials (Texas Southern Student Chapters). He is a member of the Epsilon Pi Tau Honorary Fraternity for Technology Students (Gamma Pi Chapter), and Alpha Phi Alpha, Inc. Fraternity. Mr. Wilson received the National COMTO Carmen E. Turner Scholarship in Atlanta, Georgia, this past summer. Furthermore, he has received the TexITE (Texas Section of (ITE) Outstanding Student of the Year Award (Texas Southern Chapter).

## Center for Transportation and the Environment

### NORTH CAROLINA STATE UNIVERSITY

**KIMBERLY R. YANDORA** is pursuing an M.S. in natural resources with an option in hydrology at North Carolina State University. Ms. Yandora's fellowship research focuses on conducting a functional capacity assessment of a stormwater treatment wetland being created on a third-order urban stream in Greensboro, NC. The 20-acre wetland is being designed to treat urban stormwater runoff from a 13-square-mile watershed, which includes two major transportation corridors (Interstates 40 and 85). The project objectives are to: Improve water quality in the stream by sedimentation in the forebay and removal of pollutants in the floodplain; Improve aquatic habitat; Improve terrestrial habitat. Ms. Yandora's research will span pre-construction conditions, monitor the changes during construction of the facility, and provide a one-year assessment after project completion. She anticipates that her research will help improve the scientific community's understanding of the holistic management of watersheds, particularly in urban areas.

## Regional UTCs and Consortium Members

### REGION I: Massachusetts Institute of Technology, *Cambridge, MA*

Harvard University  
 University of Connecticut  
 University of Maine  
 University of Massachusetts  
 University of New Hampshire  
 University of Rhode Island  
 University of Vermont

### REGION II: City of University of New York, *New York, NY*

Cornell University  
 New Jersey Institute of Technology  
 New York University  
 Polytechnic University  
 Princeton University  
 Rensselaer Polytechnic Institute  
 Rutgers University  
 SUNY  
 Stevens Institute of Technology  
 University of Puerto Rico

### REGION III: Pennsylvania State University, *State College, PA*

University of Pennsylvania  
 University of Virginia  
 Virginia Polytechnic  
 West Virginia University

### REGION IV: University of Tennessee, *Knoxville, TN*

Duke University  
 Georgia Institute of Technology  
 Georgia State University  
 North Carolina A&T State University  
 North Carolina State University  
 University of Florida  
 University of Kentucky University of North Carolina (Chapel Hill)  
 University of South Florida  
 Vanderbilt University

### REGION V: University of Wisconsin, *Madison, WI*

Lac Courte Oreilles Ojibwa Community College  
 Marquette University  
 Northwestern University  
 Richard J. Daley College  
 University of Cincinnati  
 University of Chicago  
 University of Wisconsin (Milwaukee)

### REGION VI: Texas A&M University, *College Station, TX*

Texas Southern University  
 University of Texas (Austin)

### REGION VII: Iowa State University, *Ames, IA*

Lincoln University  
 University of Missouri (Columbia)  
 University of Missouri (Kansas City)  
 University of Missouri (St. Louis)  
 University of Northern Iowa

### REGION VIII: North Dakota State University, *Fargo, ND*

Colorado State University  
 University of Utah  
 University of Wyoming

### REGION IX: University of California, *Berkeley, CA*

University of California (Davis)  
 University of California (Irvine)  
 University of California (Los Angeles)  
 University of California (Riverside)  
 University of California (Santa Barbara)  
 University of California (San Francisco)  
 University of California (Santa Cruz)  
 University of California (San Diego)

### REGION X: University of Washington, *Seattle, WA*

Oregon State University  
 Portland State University  
 University of Arkansas (Fairbanks)  
 University of Idaho  
 Washington State University



# University Transportation Centers

Assumption College  
City University of New York  
George Mason University  
Iowa State University  
Marshall University  
Massachusetts Institute of Technology  
Montana State University, Bozeman  
Morgan State University  
New Jersey Institute of Technology  
North Carolina State University  
North Carolina A&T State University  
North Dakota State University  
Northwestern University  
Pennsylvania State University  
Purdue University  
Rutgers University  
San Jose State University  
South Carolina State University  
Texas A&M University  
University of Alabama  
University of Arkansas  
University of California  
University of Central Florida  
University of Denver and Mississippi State University  
University of Idaho  
University of Minnesota  
University of Missouri, Rolla  
University of Rhode Island  
University of Southern California and  
California State University, Long Beach  
University of South Florida  
University of Tennessee  
University of Washington  
University of Wisconsin-Madison