

# Research News

November 18, 2008

Region 2 University Transportation Research Center www.utrc2.org

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#### **EVENTS:**

<u>Nov. 16-20</u> – ITS World Congress, NYC

<u>Nov. 21, 2008</u> - A Bridge to Somewhere: Rethinking American Transportation for the 21st Century by Robert Puentes of the Brookings Institute, at Baruch College

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## Director's letter

The economic crisis that has gripped the entire globe over the last quarter will have profound impact on our transportation systems. Even prior to the bad news of market collapses, New York State had established the Ravitch Commission to find funds for the MTA. The New Jersey Governor has been proposing many dramatic approaches towards meeting infrastructure needs, most not gaining acceptance. And on October 7, 2008, NYSDOT and UTRC held a conference in Syracuse to address finding general transportation funds as gas tax support for the Highway Trust Fund becomes inadequate. And the NYS Governor has established yet another Commission to look at the role the private sector can play in rebuilding and expanding the State's infrastructure. Simply, traditional sources of revenue – taxes, issuance of debt, tolls and fares - can't, as currently structured, meet the needs to keep our roads bridges and transit systems in a State of Good Repair and to provide necessary system modernization and expansion. And, in this last quarter of 2008, there is not a robust and expanding economy from which we can expect increases from these sources. So what can we do? Many are hoping that a Washington based economic stimulus targeted at infrastructure - will solve the problem. But, realistically, Washington, facing similar needs in 48 other States can only do so much. New York and New Jersey must come up with bold and continuing sources of support that combine debt financed leveraged sources of capital, new toll and fare structures, and, though unpopular, new taxes - dedicated to infrastructure. UTRC has provided input to these Commissions and Conferences: details are on our website. But the bottom line is that such support must be found if the region is to remain the engine that supports our claim to being a global capital, and, perhaps, of greater importance, if we are to sustain the great quality of life we have in this region.

## Beyond the Gas Tax: A Symposium on Funding Future Transportation Needs

On Tuesday, October 7, 2008, federal and state governmental officials, academics, members of the construction industry and transportation experts from across the country gathered at the State Fair Grounds in Syracuse, NY to discuss the status of federal and state funding for transportation infrastructure. The symposium, sponsored by the New York State Department of Transportation (NYSDOT) and UTRC, was convened in response to the reality that the gas tax, the primary source of state and federal funding for transportation investment, isn't keeping

pace with growing transportation needs. The aim was to consider alternatives and supplements to the current gasoline tax as a revenue source in paying for future transportation projects.



After introductions from UTRC's Director Robert Paaswell and NYSDOT Commissioner Astrid Glynn, the keynote speech was delivered by Emil Frankel, Director of Transportation Policy for the National Transportation Policy Project, Bipartisan Policy Center. Mr. Frankel began by noting that given the critical role of infrastructure in supporting the state and national economy, the declining state of transportation infrastructure cannot be taken lightly. He stressed the need for institutional reform to achieve needed transformations to transportation policy at various levels of government, including: greater yet wiser investment linked to nationally determined goals; greater reliance on user charges and less on the gas tax; greater reliance on alternative funding and financing sources, including partnerships with the private sector; and the ability to attract and support high-quality human capital in public transportation agencies.

The first of two panels of state and national experts focused on defining the problem at hand, outlining the growing capital needs of New York State's transportation network and documenting the current and future status of transportation funding and financing sources. Dr. Allison L. C. de Cerreño, Director of the Rudin Center for Transportation Policy and Management at New York University, began by noting the critical role of transportation infrastructure in the state and national economy, identifying the critical role of facilities both upstate and downstate and the size and breadth of capital projects needed to restore these facilities to a state of good repair; the New York State Department of Transportation has projected \$175.2 billion in capital needs over the next twenty years.

The picture painted by Jim Calpin, Managing Director at Merrill Lynch, was one of increasingly scarce funding and financing sources to support these projects, owed largely to the current economic downturn. Richard Drake, Program Manager of Transportation and Power Systems at NYSERDA, further explained that inadequate investment in transportation undermines important energy and environmental policy goals as well. The massive debt burden of the state was the focus of Mary Ann Crotty of Macro Associates, stressed the need for a broader investment policy in New York that supports borrowing for capital purposes but favors pay-as-you-go funding for maintenance needs. Many of the day's speakers were in agreement that existing revenue sources are not sufficient to support current and future transportation investment needs. Jack Basso, Director of Management and Business Development at the American Association of State Highway and Transportation Officials (AASHTO), documented the recent shortfall in the Federal Highway Trust Fund and laid out several examples of the types of tax changes needed to make up the shortfall into the future.

The second panel turned the focus on new ways to generate revenue for future transportation needs, favoring methods that not only allow for greater revenues for transportation purposes, but those that support the policy goals of energy security and reduced environmental impacts as well. Some of the alternative revenue streams discussed included: bonds (general obligation, appropriation, gas tax, and revenue bonds), dedicated state taxes, federal financing initiatives such as the National Infrastructure Bank, local-option sales taxes, private investment and user fees. Of specific note, panel member Ken

Orski, the Editor of *Innovation Briefs*, suggested a vehicle-miles traveled fee based on trip length (and perhaps vehicle size and weight) that would more accurately reflect actual road usage "and not rely on taxing a commodity we are actually trying to discourage using." Jonathan Peters, Associate Professor at the College of Staten Island, stressed the distinction between funding and financing, illustrating the importance of equity issues across taxpayers, business and regions through recent examples in New Jersey, Pennsylvania, and Oregon. Asha Agrawal, Director of the Mineta Transportation Institute's National Transportation Finance Center, San Josè State University, discussed California's experience and offered survey evidence of public support for "green" transportation taxes and fees. The second panel concluded with Frank Mauro, Director of the Fiscal Policy Institute, who raised the idea of revisiting the repealed state real estate capital gains tax on property sales over \$1 million and considering changes to motor vehicle and payroll taxes.

In addition to finding the right mix of alternative revenue sources, all of the panelists spoke to the need for wiser investment and institutional reform. Steve Morgan, Secretary of the New York Roadway Improvement Coalition, followed the panels with a call to action of sorts, stressing the need for strong political leadership that not only reacts to physical disasters, but successfully advocates on behalf of transportation infrastructure among competing public needs.

For more information on the symposium, please click here

## September 11 Memorial Program Academic Initiative

#### Close-Out Seminar for Academic Year 2007/2008 Program

The University Transportation Research Center has continued to work with the New York Metropolitan Transportation Council to administer NYMTC's September 11th Memorial Program for Regional Transportation Planning – Academic Initiative. This program was established to honor three colleagues lost in the attack on the World Trade Center, Ignatius Adanga, Charles Lesperance, and See Wong Shum. This program is designed to educate and motivate people interested in transportation technology and planning and to encourage innovations in planning activities throughout the region. The program's Academic Initiative provides tuition and stipend support to talented students from across the region for internships and independent research projects.

The third year of the program closed on September 17, 2008 when the five participants presented their work at the NYMTC office. The participants were as follows:

**Nancy Mahadeo** had participated in an internship at NYMTC studying Mobile Source Emissions Reduction Planning under the direction of Larry McAuliffe. She analyzed five alternative sources of energy, Plug-in Hybrids, Hydrogen Fuel Cell Vehicles, Hybrids, and Diesel vehicles, and measured emission reduction and cost effectiveness. Nancy was a Masters student in city and regional planning at Rutgers University.

**Gitakrishnan Ramadurai**, a Ph.D student at Rennsselaer Polytechnic Institute in civil engineering, presented his work on Identification and Modeling of Next Generation Traveler Guidance Systems. He reviewed emerging traveler information/guidance technology and reported on his development of modeling techniques for efficient implementation and operation of next generation traveler information systems. Gitakrishnan was advised by Professor Satish Ukkusuri of RPI and also worked closely with Todd Westhius of New York State Department of Transportation.



**Matthew Roe** had pursued an internship at New York City Department of Transportation on Pedestrian Safety Planning. His presentation provided the results of his GIS-driven investigation of the geography of senior pedestrian safety and the causes of pedestrian-vehicular crashes in New York City. This work involved closely related tasks of pedestrian safety, traffic calming, and urban design. Matthew was advised by Seth Berman and Ann Marie Doherty, both of NYCDOT. He had been a Masters student in urban planning at Columbia University.

**Brian Ross** participated in an internship at NYMTC on Coordinated Human Services in Public Transit Planning. He presented his research on the successes and challenges of the New Freedom Program, which included recommendations and guidance to the NYMTC region for implementation and administration. Brian had been a Masters student in urban planning at New York University. His supervisor at NYMTC was Nancy O'Connell. **Timon Stasko**, A Ph.D student at Cornell, presented the results of his independent research to develop a model to predict fleet owner behavior for undertaking diesel retrofits. As part of his research, Timon applied the model to a "real world" case study in the NYC region. Timon's academic advisor was Professor Oliver Gao of Cornell and his professional advisor was Mark Simon of NYCDOT.

All of these presentations are available on the **UTRC website**.

#### Students Selected for Academic Year 2008/2009 Program

UTRC received applications from fifteen students from several consortium schools. The students were evaluated by a committee of seven comprised of faculty and agency representatives who rated the students on relevance of academic and professional preparation, quality of their submitted essay, and strength of recommendation letters. In addition to these criteria, the candidates for independent research were evaluated on the relevance and feasibility of their proposal. The following five students were selected:

**Evan Bialostozky**, a master's student in Geography at Hunter College of The City University of New York, is participating in the September 11 Internship Program at the New York Metropolitan Council in the technical group, under the supervision of Jorge Argote of NYMTC. Evan's work will include the development of an algorithm to detect transportation modes from GPS travel survey data, and assessment of the survey design of both the upcoming and the 1997/98 Regional Travel Household Survey.

**Peter Feroe**, a Masters student in Urban Planning at New York University, is participating in an internship with the Westchester County Department of Planning on "Transit Oriented Development along the I-287 Corridor in Westchester County." His work is supervised by Ed Buroughs, Deputy Commissioner of Westchester County Department of Planning.

**Jennifer Lozano**, a master's student in Urban Planning at New York University, is an intern with Metropolitan Transportation Authority Capital Construction. As part of her internship, Ms. Lozano will evaluate the outcome of workforce development initiatives and measure their success. Her internship supervisor is Regina Gramola of MTA Capital Construction.

**Darrell Sonntag**, a Ph.D. student in Civil Engineering at Cornell University will be conducting an independent research project on "Modeling the Temporal and Size Distributions of Diesel Vehicular Particulate Matter Emissions." His academic advisor is Professor Oliver Gao and his professional advisor is Larry McAuliffe of NYMTC.

**Nicholas Tulach**, a Ph.D. student in city and regional planning at Rutgers University will be undertaking an independent research project on "Jurisdictional Boundaries for Comprehensive Street Planning in New York City." His faculty advisor is Professor Daniel Chatman and his professional advisor will be Michael Flynn of the New York City Department of Transportation.

#### 9/11 Student Receives ITS World Congress Award



**Gitakrishnan Ramadurai** has been selected as the 3rd prize winner for the ITS World Congress Student Essay competition based on his September 11 fellowship work.

## Visiting Scholar Seminar: The Paradigm of Mobility: A Radical Change in Urban Transport to Challenge Sustainability

Thinking about mobility in a new light was the focus of the UTRC visiting scholar seminar, "The Paradigm of Mobility" on September 26, 2008 at Baruch College. Georges Amar, the head of the Prospective and Innovative Design Team at RATP, the major transportation operator responsible for public transportation in Paris and its surroundings, and Dominque Laousse, also from RATP, gave a presentation of their work in planning and designing for mobility needs in Paris. This work is based on a new and innovative thinking process on what mobility means. Unlike transportation, which is viewed largely as a passive activity (you are transported) according to Georges Amar, mobility is more active. The speaker explained that planning for the new concept involves understanding change in such things as demographics, emerging cultural shifts, economic shifts, environmental needs, but that it is often hard to predict exactly how things will change. Therefore, his team tries to understand the general direction that the change will take. As part of this innovative process, RAPT holds workshops with participants in a variety of fields (technology, social science, arts and letters) to share knowledge, develop a concept through a collective design process, and propose solutions.

The new thinking relies on a transformation in uses and values. Mobility is viewed as something selected by an individual from choices and it is also viewed as a social right. According to the speakers, the new mobility has several additional dimensions. Amar explained that in transportation, we often use a measure of time to report distance, or "time distance," but time under the new concept is measured more as "time substance." Time is thought of as a substance that we use and optimize. Mobility also offers an opportunity for improved health, pleasure and comfort as well as a chance to connect with others.



During the talk, Examples were given from Curitiba, Brazil to discuss how stations play a major part in mobility. Curitiba maintains glass enclosed tubes as stations for their "surface subway" which is really a bus rapid transit system that has subway-like stations above ground. Mobility is enhanced through design since the station and the bus connect, enabling passengers to board and disembark without the use of stairs. Time is also saved by providing ticket purchasing in the station and not on the bus.

Dominique Laousse continued by discussing a research experiment involving "smart bus lines" that RATP sponsored in conjunction with the Massachusetts Institute of Technology (MIT) in 2006. The station prototype was double-sided, thereby serving as a city landmark and as a comprehensive source of access to the resources and attractions within the city. The station was planned to be technologically equipped to serve as a resource in a variety of areas including complex space navigation, advertising, expression of art and music, etc., as well as a provider of transportation information.

The complete video of the presentation is available online

## New Staff at UTRC

Harold Stolper joined UTRC last month as Assistant Director for Research and Outreach. He will be working

to develop closer collaborative ties between academic researchers and transportation planning and engineering professionals, with a particular focus on incorporating economic principles and methods into the professional discourse and practice. Prior to coming to UTRC, Harold worked as an economist at the US Department of Transportation's Volpe Center in Cambridge, MA, focusing on cost-benefit analysis and econometric and statistical modeling. (See following article on his work at the Volpe Center). He holds a Master of Public Administration from Columbia University's School of International & Public Affairs, as well as a B.S. in Economics from The George Washington University.

## Economic Research Performed at the Volpe Center by new UTRC Assistant Director for Research & Outreach



Harold Stolper, Assistant Director for Research & Outreach, worked as an economist for US DOT's Volpe Center in Cambridge, Massachusetts for the past two years, primarily in support of the Federal Highway Administration's Highway Economic Requirements System (HERS) model, a decision-support tool for evaluating alternative levels of highway investment based on applied microeconomics and engineering concepts. In support of the HERS model, Harold carried out an econometric analysis of the Federal Highway Program,

investigating how states' and localities' own-source highway investment levels respond to variations in economic and demographic variables and changes in the structure of the federal funding program.

More recently, Harold has been working on a critical review of the cost-benefit analysis (CBA) state-ofthe-art for transportation investments. The study attempts to define the role of CBA in evaluating transportation investment projects and relate claims of economic impacts or wider benefits to the question of ultimate interest: determining the net benefits to society as a whole. It begins with a comprehensive review of the economic and planning literature, documenting the application of classical economic theory to the evaluation of transportation investments. The study focuses on the estimation of benefits at the point of the user of the improved facilities, documenting the conditions needed for such an approach to provide a full and accurate estimate of economy-wide benefits, and examining how conditions in the transportation market and transportation-using markets can affect estimation of benefits. After documenting the framework for carrying out CBA, the study proceeds with practical guidance on constructing the travel demand curve. Next, the role of economic impact analysis is defined and the meaning behind the estimates it provides are compared to those of CBA. Lastly, the issue of wider economic benefits is addressed.

Numerous arguments have been made citing additional benefits of transportation investment that heretofore have not been fully counted, often making claims as to the existence of "wider benefits," "productivity impacts," or "reorganization benefits." These wider benefits are distinct from distributional concerns reflecting the ultimate incidence of direct benefits, which will diffuse throughout the economy through transfers between economic agents. It is thus critical to differentiate between benefits and impacts; impacts in the land market, for example, may reflect transfers from transportation users to landowners that imply no change in the total level of benefits accruing to all economic agents. The Volpe study aims to deconstruct these arguments—most of which rely on the existence of market imperfections such as local monopoly power or externalities—and identify the implications of each for CBA. The final component of the study is a review of alternative modeling approaches that have been developed or utilized in response to these arguments, including Land Use-Transportation Interaction (LUTI) models, Computable General Equilibrium (CGE) models, and macroeconomic models that consider transport as an input in firms' production (or cost) functions.

Some of Harold's other projects at the Volpe Center include: an assessment of the system-wide benefits resulting from expanding airport capacity; and co-founding and co-moderating the Statistical Software Users' Group to help facilitate statistical training and knowledge sharing across the Volpe Center.

## 10th Annual New Jersey Department of Transportation Research Showcase

The New Jersey Department of Transportation held its 10th Annual Research Showcase on October 16, 2008. This year's event was hosted by Rutgers University and was held at the Conference Center at Mercer located in West Windsor, NJ. The presenters from various public and private sector entities from the New Jersey and New York State transportation fields gathered to share their research activities within the region. The focus of the event was to highlight the research activities being conducted by NJDOT's various university partners.

The showcase comprised six major areas of transportation planning and regulation.

These were; Multimodal/Intermodal Programs, Congestion/Intelligent Transportation Systems, Project and Asset Management and Capital Planning, Safety, and Environment.

The University Transportation Research Center participated in the conference with speakers and poster sessions to showcase our research efforts. The City College of New York's Professor, Dr. Anil Agrawal gave a presentation on "Deterioration Rates for Different Bridge Components Using Inspection Data". His presentation addressed the area of Infrastructure and Bridge Preservation. Most of the presentations can be accessed **online**.

These presentations leave an impact on the administrators, practitioners, decision makers and stakeholders and give them an understanding of regional transportation needs. It also creates availability for new ideas on planning and management to benefit facility costs and community members.



## NJDOT Student of the Year Award



At the 10th Annual NJDOT Research Showcase, Mr. Guangyong Liu was awarded a 2008 NJDOT Student of the Year Award. Mr. Liu is currently a Ph.D. student at the City College of New York with Professor Anil K. Agrawal. Prior to joining the City College of New York, Mr. Liu received his M.S. in Mechanical and Aerospace Engineering from the University of California, Irvine. Mr. Liu has been working on the New Jersey Department of Transportation project "Seismic Design Considerations" to develop seismic guidelines for existing bridges on New Jersey. Mr. Liu has a very strong background in solid mechanics and modeling of complex structural systems. For his Ph.D. research, Mr. Liu is working on the development of multihazard blast, seismic and vehicle impact guidelines for

highway bridges". This is a highly complex and urgently needed guideline for design of sustainable highway bridge systems in the country. This is a cutting edge research that is being led through the sponsorship of NJDOT and UTRC.



## The USDOT's Research and Innovative Technology Administration VISITS UTRC

Staffs from the Research and Innovative Technology Administration (RITA) spent an entire day at UTRC on September 18, 2008, meeting with UTRC staff, faculty, administrators, students, and agency partners. Staffs from RITA periodically visit University Transportation Centers

around the country to learn first- hand how the centers utilize their federal grants and engage in projects that ultimately help foster goals set forth by USDOT in areas such as safety, reduced congestion, global connectivity, environmental stewardship and security, preparedness and response.

During the morning activities of the visit, UTRC staff welcomed the RITA visitors and presented an overview of the day followed by presentation and discussion on UTRC administration and financial management. The afternoon session focused on UTRC activities reflecting the many research and technology transfer projects, and educational programs performed by UTRC, and UTRC's successful collaboration with local transportation agencies and partners. The afternoon session was attended by agency partner representatives, students and faculty from consortium members, RITA, and UTRC Staffs.

## Women's Transportation Seminar (WTS) Fellowship

Haiyun Lin is the 2008 recipient of the UTRC's WTS Student Award of \$1000, which goes to the winner of the Women's Transportation Seminar's (WTS) Leonard Braun Memorial Graduate Scholarships. She is currently a student at the Department of Civil Engineering at City University of New York, where she has enrolled in the Ph.D. program in Transportation Engineering with a concentration in transportation planning.

Besides her studies, Haiyun is currently a research assistant at Region II University Transportation Research Center. At the Center, her work mainly includes technology testing for MPO's regional travel survey, as well as design and implementation of the New York Metropolitan Region residential relocation survey.

Haiyun Lin is interested in exploring both individual and regional travel demand and supply from behavior point of view, grounded in residential location search behavior and selection process. She is

also interested in demand analysis for public transportation system, with a hope of working on transit oriented development in the future.

## New UTRC Consortium Faculty



## Robert Noland, Professor, Edward J. Bloustein School of Planning and Public Policy at Rutgers University

Dr. Robert Noland has been hired as a professor at the Edward J. Bloustein School of Planning and Public Policy at Rutgers University, where he will take over as director of the Alan M. Voorhees Transportation Center in January 2009. Dr. Noland served previously in the United Kingdom as a reader in transport and environmental policy at Imperial College London. He succeeds Assistant Professor Daniel G. Chatman as director. Dr. Noland's research has focused on the impacts of transportation planning and policy on environmental outcomes. His work has been cited throughout the world in debates over transportation infrastructure planning and environmental assessment of new infrastructure. Dr. Noland chairs the Transportation Research Board's Joint Sub-committee on Transportation and Global Climate Change. He received his PhD at the University of Pennsylvania in Energy Management and Environmental Policy.

## Zhan Guo, Assistant Professor of Urban Planning and Transportation Policy, New York University

On September 2008, Dr. Zhan Guo started as Assistant Professor at the Robert F. Wagner Graduate School of Public Service at New York University. He studies travel behavior at the individual and household level s within the web of market forces, government policies, multimodal supplies, technology advances, and social trends. His main objective is to help policy makers manage urban growth, mitigate transportation congestion, and reduce greenhouse gas emissions from multiple perspectives such as I and use planning, alternative modes, and value pricing. Guo's recent projects have focused on the impact of the built environment on walking experience in Boston, the weather impact on transit ridership in Chicago, and transfer behavior in the London Underground. His future research interests include car sharing, congestion pricing, parking policies, and household car ownership decisions. He is also interested in the interplay between rapid urbanization and motorization in China. Guo's research has been supported by the U.S. Department of Transportation through the University Transportation Center (Region I) and the Alliance for Global Sustainability, the Martin Society for Sustainability, the Future Boston Foundation, and transit authorities in Chicago, Boston, and London.



## Adel W. Sadek, Associate Professor, University at Buffalo, State University of New York

Adel W. Sadek is a new Associate Professor in the Department of Civil, Structural and Environmental Engineering at University at Buffalo, State University of New York. He received his Ph.D in Civil Engineering from University of Virginia, Charlottesville, VA. His areas of research are in Transportation Systems Modeling and Simulation, Intelligent Transportation Systems, Traffic Operations, Infrastructure Management, Systems Engineering and Artificial Intelligence Applications in Transportation.

Qian Wang, Assistant Professor University at Buffalo, State University of New



York

Dr. Wang joined the faculty at SUNY, as an Assistant Professor, Department of Civil, Structural and Environmental Engineering University at Buffalo. She recently received her Ph.D in Transportation Engineering from Rensselaer Polytechnic Institute, Troy, NY. Her areas of researches are in Transportation Planning, Travel Demand Forecasting, Freight System Modeling, and Congestion Pricing and Behavioral Choice Modeling.

#### Huimin Yin, Assistan Professor, Columbia University



Dr. Huimin Yin is an assistant professor of Civil Engineering at Columbia University. He specializes in the multi-scale/physics characterization of civil engineering materials and structures with experimental, analytical, and numerical methods. His research interests are interdisciplinary and range from structures and materials to innovative construction technologies and test methods. His representative research areas include multiscale characterization and design of warm mix asphalt, performance-based investigation of rubberized and polymer-modified asphalt, fracture testing and modeling of engineering materials and structures, nuclear test method for the compaction control of pavement construction, and multi-scale/physical characterization of smart materials and structures among others.



#### Xuegang (Jeff) Ban, Assistant Professor, Rensselaer Polytechnic Institute

Dr. Xuegang Ban is an Assistant Professor at the Department of Civil and Environmental Engineering, Rensselaer Polytechnic Institute. Before joining RPI, he was a Post-Doctoral Researcher at California Center for Innovative Transportation (CCIT), Institute of Transportation Studies, University of California at Berkeley. Dr. Ban's research focuses on modeling and simulation that aim to reveal the complex dynamic, stochastic, and evolving interactions among the critical components of transportation systems, with the purpose to develop effective, efficient, and sustainable methodologies to mange wide-area and multi-modal transportation systems. His current research interests are Large-scale traffic simulation that focuses on integrated and multi-modal transportation corridor management, Theoretical, algorithmic, and computational issues of dynamic traffic network analysis, Sensoraided modeling and simulation, especially the application of mobile traffic sensors for traffic monitoring and management, state estimation, and traffic information collection and dissemination and Intelligent Transportation Systems (ITS) that focuses on applying information technologies to various traffic/transportation applications.

#### **Research Grants News**

The following is a list of new projects awarded since the last edition of this newsletter:

Analysis of Bicycling Trends and Policies in Large American Cities: Lessons for New York (awarded by RITA/UTRC to Dr. John Pucher, Rutgers)

Advanced Applications of Person-based GPS in an Urban Environment (awarded by RITA/UTRC to Catherine T. Lawson, State University of New York)

Mode Shift in Transit Under-served Neighborhoods in New York (awarded by RITA/UTRC to Dr. Zhang Guo, CCNY)

Effectiveness of Traffic Calming Measures (awarded by NYCDOT to Cynthia Chen, CCNY)

Self-Organized Transport System (awarded by RITA/UTRC to Dr. Sanjay Goel, SUNY)

Less Can Be More: Locating Fewer Sensors for Monitoring Traffic (awarded by RITA/UTRC to Fan Yang of CCNY)

New York City Park & Ride Study (awarded by NYSDOT to Dr. Satish Ukkusuri of RPI)

Potential for Natural Brine for Anti-Icing and De-Icing (awarded by NYSDOT to Dr. Kauser Jahan of Rowan University)

#### **News and Notes**

#### Non UTRC Consortium Research

The Alan M. Voorhees Transportation Center (VTC) was awarded TCRP Project H-39, Methodology for Assessing the Economic Development Impacts of Transit Investments. The award marks the first TRB study won by VTC. The study will establish a methodology to estimate how transit investments stimulate economic development, and make the methodology usable by state and local transportation agencies seeking Federal capital support. The study will examine how transit investments impact economic growth by improving access to employment and other destinations, and also potentially by encouraging firm clusters that increase economic productivity, and reducing auto use. Dr. Daniel Chatman is the Principal Investigator; Steer Davies Gleave is VTC's research partner. The \$400,000 study is to be completed in 2010.

The Center is also researching the "Impact of Demographic Changes on Transit Use" under a new grant awarded by the NJ Department of Transportation. Estimates show 93 percent of New Jersey's population growth since 2000 has been due to immigration, dramatically changing the state's population characteristics. The study will explore whether immigrants bring with them a culture of transit ridership from their home countries and if that orientation toward transit endures over time. The study will also investigate whether transit mode choices differ among different immigrant subgroups. The results of this research will help inform decisions regarding where to add or reduce transit service, and influence decisions on multi-million dollar investments in new transit infrastructure.

#### UTRC ICON Mentor Herb Levinson at IIT Armour College of Engineering

Herb Levinson, UTRC ICON Mentor, recently participated in the Armour College of Engineering, Illinois Institute of Technology distinguished lecture series. On May 7, 2008 he discussed the topic, "Managing Access: Broadening the Perspective." Drawing on national experience and extensive research studies, Dr. Levinson presented the basic principles and practices that underlie access management programs, as well as safety and travel time benefits. A key element of the system is access classification that specifies when access should be permitted or denied on various classes of highways. Access management should be viewed as both a land use and transportation issue. Some possible ways to broaden the perspective would be developing better suburban street systems, designing "complete streets" and encouraging multimodal transportation impact assessment. Herb Levinson is a graduate of IIT where he received he Bachelor of Science degree in civil engineering.

#### **Publications**

Daniel Hess and Alex Bitterman, University of Buffalo, have published "Bus Rapid Transit Identity: An Overview of Current 'Branding' Practice." 2008 Journal of Public Transportation. vol.11. no.2. pp.19-42.

Martin Robins, senior policy fellow at the Alan M. Voorhees Transportation Center at Rutgers University, has completed two new reports regarding public transit and local economic development. Robins and PBF Consulting prepared "Informed Intuition: Discussion Paper for Newark's Transit Future" for NJ TRANSIT and the City of Newark, available at:

http://policy.rutgers.edu/vtc/reports/REPORTS/InstAnal.Newark\_FINAL.pdf

For the other study, Robins worked with Dr. Jan Wells on the study Land Development at Selected Hudson-Bergen Light Rail Stations which was prepared for NJ TRANSIT. That report is available at: http://policy.rutgers.edu/vtc/reports/REPORTS/HBLR%20Final%20Report.pdf

#### Region 2 University Transportation Research Center

(Serving New Jersey, New York, Puerto Rico, and U.S. Virgin Islands)

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