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National Center for Transit Research



Annual Report
September 2010

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Message from the Director—Research that Makes a Difference

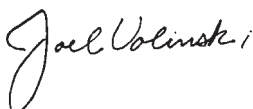
The National Center for Transit Research at USF is privileged to contribute to the improvement of our state's and nation's transportation system by conducting research that enhances the performance of public transportation and alternative forms of transportation. We aggressively share the results of that research and prepare the next generation of transportation professionals through classes, mentoring, and opportunities to participate as research assistants.

Our primary emphasis is on developing solutions to current challenges faced by operating transportation agencies. Many of our recent research products have been adopted by local, state, and federal agencies, and our research is enhancing safety and productivity, saving money, and improving the quality of performance at transit agencies and DOTs across the U.S. Our Bus Incident Reporting, Tracking, and Analysis System is helping agencies understand the circumstances under which accidents and incidents occur, which, in turn, enables them to modify their training and reduce accidents in the future. Our National Transit Database Sampling Package, adopted by the Federal Transit Administration, contains a guide and an Excel tool for NTD reporters that can decrease reporting burdens by taking advantage of modern sampling techniques and customizing the sample size to the individual conditions at each transit agency. FTA has asked that it be developed as a Web-based tool to further simplify efforts while actually improving the statistical validity of the reports. Our TRIMMS (Trip Reduction Impacts for Mobility Management Strategies) model enables agencies to calculate the impact of a broad range of TDM initiatives on factors such as congestion mitigation, emissions and air quality, accident reduction, and travel time savings. The model is now being used by EPA, FHWA, and a number of state and regional departments of transportation. These are only a few examples of the many products NCTR develops that are changing the way transportation agencies plan, analyze, and operate. The ultimate beneficiaries are all those who use our nation's surface transportation system.

NCTR makes great efforts to distribute our research results through our Web site, presentations at conferences, publications, netcasts, and active participation on professional committees. Almost 5,000 professionals and students use our listservs. We also host a one-of-a-kind GIS in Transit conference every two years that specializes in new applications of geospatial analysis to benefit public transit agencies and their passengers.

Perhaps the most significant contribution made by NCTR and all University Transportation Centers is preparing students for transportation careers and allowing them to discover the many opportunities in the field. Our former students now work at high levels of state Departments of Transportation, the Federal Transit Administration, the Research and Innovative Technology Administration, the National Center on Senior Transportation, regional transit agencies, and consulting firms. We look forward to introducing many more students to opportunities to serve our nation through their transportation expertise.

NCTR is proud to have successfully competed twice at the national level to attain and retain our Tier I UTC status. We are also ever grateful for the financial support provided by the Florida Department of Transportation for the matching funds they provide to our federal grant, as well as their role in helping develop and manage the research conducted.



Joel Volinski, NCTR Director



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Introduction

In September 1999, the National Center for Transit Research (NCTR) was approved for funding by the U.S. Department of Transportation's Research and Special Programs Administration (since renamed the Research and Innovative Technology Administration, RITA). The NCTR program builds on the goals and philosophies of the National Urban Transit Institute, which was established at the Center for Urban Transportation Research (CUTR) at the University of South Florida (USF) in Tampa by the Intermodal Surface Transportation Efficiency Act of 1991.

Theme of NCTR

The theme of NCTR is to make public transportation and alternative forms of transportation, including managed lanes, safe, effective, efficient, desirable, and secure. The goals of NCTR are to minimize traffic congestion, maximize mobility options, promote safety and security, improve the environment, and enhance community sustainability. This is accomplished by conducting applied and advanced research, energetically disseminating the results, and expanding the workforce of transportation professionals through education and training to address the challenges and opportunities of the future.

NCTR's theme is consistent with the strategic goals of the USDOT. Public transportation must become a more prominent mode of transportation as our population increases and ages, funding of highway infrastructure becomes more expensive and difficult to secure, congestion reduces the efficiency of the economy, gas becomes scarcer and more expensive, concern for the environment continues to increase, and our reliance on oil puts our national security at severe risk. More attractive public transportation services and managed lanes can provide more choices to the traveling public and business community to complement and supplement the highway construction that will be undertaken.

NCTR also focuses on research that promotes travel choices for all trip purposes and improves transportation system reliability. Research includes enhancements in the use of alternative forms of travel and practices such as managed lanes, telework, flexible work hours, congestion pricing, traveler information, ridesharing, and bicycling and pedestrian modes. In addition, NCTR faculty and students conduct research that helps advance the use of alternative fuels and technologies that help protect the environment while enabling traffic to move more safely and smoothly.

Organizational Structure of NCTR

NCTR is housed within the Center for Urban Transportation Research in the College of Engineering at the University of South Florida. Key personnel of NCTR include:

Director	Joel Volinski
Administrative Director	Dennis Hinebaugh
Education Director	Steve Polzin
TDM Program Director	Philip Winters
Transit Training Program Director	Lisa Staes
Transit Management and Innovation Director	Rob Gregg
<i>Journal of Public Transportation</i> Editor	Gary Brosch
NCTR Program Assistant	Lisa Ravenscroft



Being housed at CUTR gives NCTR the enormous advantage of being part of a large and extremely active transportation research center. The faculty and students at CUTR represent the largest concentration of public transportation researchers in a single university in the country, and possibly the world. This concentration of talent and research provides opportunities for education and professional capacity-building within the center. Extensive technology transfer activities ensure that research results are available to potential users in a form that can be implemented, used, or otherwise applied.

Program Overview

Funding

NCTR has completed its 11th year, having been approved for funding in September 1999. The federal funding for this program helps to significantly expand the area of public transportation research already conducted by CUTR researchers over the last 21 years. Federal funds for the program are matched with a 100 percent cash match from the Florida Department of Transportation (FDOT). These matching funds are made available at a 10 percent indirect rate, compared to the federal indirect rate of 47 percent, resulting in a significant increase in direct funds available for public transportation research. FDOT's commitment to match this grant was secured before July 1999, and the relationship remains strong, with FDOT committed to providing matching funds for the duration of the program. FDOT also has designated two senior members of its management staff to serve on the NCTR Advisory Committee to help select future projects and guide the program.

NCTR Advisory Committee

The NCTR Advisory Committee was created during the first six months of the program and consists of 14 experts in the public transportation community with knowledge in the areas of public transportation research, transit planning and operations, and alternative forms of transportation. The members and their affiliations are as follows:

Joe Calabrese
General Manager
Greater Cleveland Regional Transit Authority

Perry Maul
Operations Manager
Indiana University Campus Bus Service

Mike Baltes
ITS Program Manager
Federal Transit Administration

Bill McCloud
Senior Vice President & C.O.O.
Veolia Transportation

Tim Garling
Executive Director
Pinellas Suncoast Transit Authority

Jose-Luis Mesa
Director, Miami-Dade MPO

Ed Coven
State Public Transit Office Manager
Florida Department of Transportation

Louis Sanders
Director of Research and Technology, APTA

Darryl Dockstader
Director, Office of Research
Florida Department of Transportation

Eric Schreffler
Director of Research, TDM Institute
Association for Commuter Transportation

Dr. Minnie Fells-Johnson
Public Transportation Consultant

Donna Vlasak
Senior Program Officer
Transportation Research Board

Dr. Wendell Joice
Director, International Telework Assoc. & Council

Joel Volinski
Director, NCTR

Year II Accomplishments

Research

The 11th year of the NCTR program (FY 2010) has supported 13 projects approved by the NCTR Advisory Committee. These projects consist of 4 core programs that will be conducted throughout the life of the NCTR program and 9 newly-selected research projects that explore methods to accomplish the goals of the U. S. DOT, and the Center, in enhancing the performance of public transportation.

Core program areas include continued development and maintenance of:

- National Transportation Demand Management (TDM) and Telework Clearinghouse
- ongoing production of teleconferences and Webcasting
- graduate student professional development
- *Journal of Public Transportation*

In FY 2010, in addition to projects that fall into these core program areas, research topics were solicited from public transportation professionals throughout the U.S. and Canada. More than 75 research ideas were received, and 9 were selected for funding:

- An Assessment of Public Transportation Markets Using NHTS Data (*Xuehao Chu, CUTR, 77920*)
- Improving the Value of Travel Time Savings Estimation for More Effective Transportation Project Evaluation (*Vicky Perk, CUTR, 77921*)
- Project UCARE: Uniform Cost Accounting and Reporting Elements for TDM (*Phil Winters, CUTR, 77922*)
- Exploring Opportunities to Expand Public Transportation Services in Florida through Potential Private Sector Participation: Phase I—Analysis of Contracting for Fixed Route Bus Service (*Stephen Reich, CUTR, 77923*)
- Florida Bus Maintenance Staffing Practices (*Jay Goodwill, CUTR, 77924*)
- Exploration of Transit's Sustainability Competitiveness (*Steve Polzin, CUTR, 77925*)
- Enabling Cost-Effective Multimodal Trip Planners through Open Transit Data (*Ed Hillsman, CUTR, 77926*)
- Tracking Costs of Alternatively-Fueled Buses in Florida (*Stephen Reich, CUTR, 77927*)
- High Speed Rail (HSR) Station Area Access (*Rob Gregg, CUTR, 77928*)

The following indicates the titles and project numbers for the seven NCTR research projects completed during FY 2010. A sample summary of three of these projects follows in the text below. These projects are available in html and pdf formats on the NCTR Web site at www.nctr.usf.edu/.

Summary Listing of Completed Research Projects in FY2010

Regional Fare Policy and Fare Allocation, Innovations in Fare Equipment and Data Collection (Ann Joslin, CUTR, 77705)

Guidebook on Using American Community Survey Data for Transit Planning (Xuehao Chu, CUTR, 77802)

Evaluation of Smart Video for Transit Event Detection (Debbie Sapper, CUTR, 77807)



Evaluation of Electronic Data Recorder for Incident Investigation, Driver Performance, and Vehicle Maintenance (Debbie Sapper, CUTR, 77808)

Utilizing Information Technology in Innovative Marketing Approaches for Public Transportation (William Morris, CUTR, 77810)

Investigation of the Feasibility of Toll and Transit Agency Equity Sharing (Stephen Reich, CUTR, 77903)

Evaluation of Camera-Based Systems to Reduce Transit Bus Side Collisions (Pei-Sung Lin, CUTR, 77905)

Summaries of Selected Completed Projects in FY10

Investigation of the Feasibility of Toll and Transit Agency Equity Sharing

Stephen Reich, CUTR

Background: To meet growing trip demand in our urban centers, an evolution of highways from construction of general purpose “free” lanes to High Occupancy Vehicle (HOV) Lanes to High Occupancy Toll (HOT) Lanes is under way. There is little evidence of any instance in the U.S. where a toll and transit agency have collaborated to finance a facility with the initial intent of using its excess capacity as a revenue source to either pay down the capital costs of the construction of a facility or as an ongoing revenue source for a transit agency. There is potential for a Bus-Toll Lane (BTL) to cover the infrastructure maintenance and operation (M&O) costs and preservation costs from tolls and to create a new revenue source capable of supporting capital-financing. This “new” concept of BTLs proposes to move transit forward

by making transit agencies a partner in the toll road business. The idea is to create bus lanes with transit agencies as an equity holder or full-owner of the required highway infrastructure.

Objectives: To develop the BTL concept further, several policy, programmatic, and regulatory questions required investigation. This project framed the institutional constraints and opportunities for equity sharing that currently exist in the highway, transit, and toll agency realms and identified statutory, regulatory, and policy changes that may be required to enhance the implementation of BTLs. The timing of the project’s completion was scheduled to allow for any constraints to be addressed in the upcoming multi-year federal transportation reauthorization.

The paper provides background on the issue, discusses various models of toll and transit agency partnerships, explores a hypothetical BTL project, and summarizes a review of federal and state issues that present opportunities and obstacles for the concept.

Findings: There appear to be no obstacles presented in the federal tolling provisions to the implementation of a BTL project, even if it involved an Interstate Highway. In fact, the SAFETEA-LU provisions on tolling appear to fully support the concept of the construction of BTL facilities. Unlike High Occupancy Toll lanes, the BTLs concept is based on the premise that there is no discounted or free passage for carpools or fuel-efficient automobiles. The equity arguments for this approach are sound, but the public education involved in their explanation will be difficult.

Reauthorization presents an opportunity to advance the BTL approach without a wholesale change to U.S. Department of Transportation New Starts eligibility. The new authorization bill



could contain provisions for applications for a limited number of proposals for the funding of BTLs that might include New Starts funding. This would provide an opportunity for a few projects to compete with other fixed guideway proposals and for the evaluation of those projects.

Finally, for BTLs to become a routine alternative for consideration in Florida's toolbox of transportation solutions, the statutes of the several expressway authorities need to be modified to allow them to construct, operate, and maintain public transportation facilities.

Conclusions: If BTLs and toll-transit equity sharing were to be implemented, it would represent the development of another tool to finance and construct high-capacity transit facilities. It also could create the potential for an inflation-sensitive revenue source for transit agencies. The potential obstacles at the state level could be addressed in an upcoming session of the Florida Legislature now that some of the barriers to implementing BTLs have been identified through this work. The project findings also may be beneficial to FDOT as it advocates its position on items that will be addressed in the upcoming federal surface transportation authorizing legislation.

With all public resources becoming more scarce, including those for public transportation, this concept not only has the potential to tap a new source of capital for high-capacity transit facilities, but it could also assist in contributing to the operating revenue available to transit agencies in Florida. Although the application of BTLs would be limited to circumstances where the demand for transit and the economics of a specific project match, exploring the opportunities and obstacles of an innovative project delivery method and suggesting remedies to the barriers is valuable.

ACS Statistical Analyzer

Xuehao Chu, CUTR

Background: Transportation planning in general, and transit planning in particular, in Florida and throughout the nation have relied heavily on the commuting and socio-demographic data from the long-form survey of the decennial census at various levels of geography. While the short-form count will continue every 10 years, the long-form survey has been replaced by the American Community Survey (ACS). While providing more current information, ACS data represent serious challenges for transportation planning professionals to use them effectively. One of these challenges results from the fact that the precision of estimates from the ACS is significantly lower than the precision of estimates from the traditional decennial census long-form survey. This requires transportation planning professionals to explicitly take into account the precision of estimates from the ACS when they use these estimates either individually or for comparisons. Transportation planning professionals, however, face difficulties in overcoming this challenge:

- Estimates in published ACS tables at American FactFinder come with a margin of error, but without other measures of precision. This makes it difficult for transportation planning professionals to judge the usability of these estimates.
- Some estimates do not come with any measure of precision. While necessary statistical procedures and formulas are available in various documents from the U.S. Census Bureau, they are not easily accessible to many transportation planning professionals.
- When the procedures and formulas are accessible, they typically involve statistical procedures and formulas with which many transportation planning professionals do not feel comfortable working.



Objectives: The objective of this project was to develop a tool that helps transportation planning professionals overcome the difficulties in using ACS data. The target users are those who are familiar with the statistical concepts involved and the measures of precision and their use and are capable of following the statistical procedures and formulas but do not want to go through these procedures and formulas by themselves.

Findings: The resulting tool from the research project is the ACS Statistical Analyzer. It can be used to assess the precision of individual estimates or to compare pairs of estimates without the need to work directly with the statistical procedures and formulas involved. The tool is comprehensive and covers a full range of functions and sub-functions for transportation planning professionals to derive measures of precision in individual estimates and to compare estimates (the numbers for the functions and sub-functions match those in the ACS Statistical Analyzer):

- A. To derive other precision measures for published ACS estimates at American Fact-Finder or estimates in the Census Transportation Planning Products (CTPP) for ACS data. Estimates from these two sources come with a margin of error (MOE):
 01. For up to 200 ACS estimates from the same table.
- B. To derive the precision measures for individual estimates that do not already have an MOE. These include published Census 2000 estimates, CTPP 2000 estimates, individual user-derived estimates from an ACS Public Use Microdata Sample (PUMS), and user-derived estimates from a Census 2000 PUMS.
 02. For frequencies, totals, averages, or medians from an ACS PUMS using replicate estimates.
 03. For averages from Census 2000 or a PUMS using a distribution table.
 04. For medians from Census 2000 or a PUMS using a distribution table.
 05. For frequencies from Census 2000 or a PUMS using design factors.
 06. For percentages from 2000 Census or a PUMS using design factors.
- C. To derive the precision measures for new estimates obtained from two or more original estimates that already have an MOE. These estimates can be published ACS estimates, CTPP estimates, estimates whose precision measures are derived using Function B, or estimates whose precision measures are derived using another sub-function of this function. This function covers estimates obtained using one of the following six operations:
 07. Sum of two or more estimates.
 08. Difference of two estimates.
 09. Percent difference of two estimates.
 10. Ratio of one estimate over another.
 11. Percentage of one estimate in another.
 12. Product of two estimates.
- D. To compare pairs of two estimates that already have an MOE. The estimates to be compared may be published ACS estimates, CTPP estimates, estimates whose precision measures are derived using Function B, or estimates that are derived along with their precision measures using Function C. This function covers three types of comparisons:
 13. One ACS estimate with another.
 14. One ACS estimate with a Census 2000 estimate using actual MOE.
 15. One ACS estimate with a Census 2000 estimate using assumed MOE.

Conclusion: The implementation of the ACS Statistical Analyzer is expected to reduce agency costs and lessen the technical barriers to dealing with the precision of ACS estimates when used for transportation planning. These direct benefits, in turn, can lead to wider and more effective use of ACS data for transportation planning.

Evaluation of Camera-Based Systems to Reduce Transit Bus Side Collisions

Pei-Sung Lin, CUTR

Background: Mirror-based systems have evolved over the years because of the need to provide a better view to the driver and now include more than one mirror with different magnifications. However, current mirror-based systems have several limitations. First, they do not cover the whole side area of the vehicle, thus leaving what are referred to as “blind zones.” This brings the bus driver into situations where he/she cannot see vehicles approaching from the side, especially during lane-changing maneuvers. Second, they are less effective during adverse weather, such as rain or fog. Finally, they are required to be large in size and extend out of the vehicle’s perimeter in order to provide the necessary view to the driver. Since transit buses come very close to the edge of the pavement to pick up standing pedestrians and passengers, a mirror that extends out of the bus footprint is not desirable. There have been reported cases where a pedestrian was struck by the mirror from a passing bus.

A potential countermeasure to this problem is the use of camera-based systems. The camera-based system in this study incorporates video cameras installed on the outside walls of the bus, aimed at the left and right rear sides of the bus, and two monitors connected inside the bus to provide the driver with an image from the cameras. This study evaluated the effectiveness of camera-based systems to reduce transit bus side crashes by measuring the reduction of blind zones and analyzing the results of controlled driving tests and driver surveys using sideview video systems.

Objectives: This project had five primary objectives:

- compare available systems, including mirror-, sensor-, and camera-based technologies, to reduce transit bus side and other collisions
- measure blind zone reductions on the side of common types of transit buses using camera-based systems
- conduct and analyze transit bus driving tests with and without camera-based systems in a controlled environment
- conduct and analyze transit bus driver surveys on driver satisfaction for using camera-based systems on lane changes
- provide major findings and recommendations

Findings: The comparison of mirrors and camera systems showed that the side blind zones that exist due to the mirrors’ inability to cover the area were greatly reduced or eliminated when using the sideview video system with wide-angle cameras.

The result from volumetric measurements of blind zone reduction showed that a camera-based system with a regular-angle lens (no distorted image) can reduce about 64 percent of the blind zones of a flat mirror system and about 43 percent of a common combined flat and convex mirror system. Using a wide-angle lens, the blind zones on both sides of transit buses can be completely eliminated.



The camera-based technology for transit buses to reduce blind zones is fairly new, so there are no crash data associated with the implementation of the technology. The approach selected in this study was to closely evaluate the aftermarket sideview video system using a controlled driving test that simulated reality scenarios. Twenty-eight participating bus drivers performed the controlled driving tests with and without using the sideview video system. It was found that most bus drivers were able to adapt to the sideview video system and quickly learn how to use it to drive without mirrors. While using the video system, the bus drivers could perceive distances similar to the mirrors while the bus was in motion. By using the sideview system, bus drivers could still see the vehicle in the blind zone of the mirrors; thus, the controlled driving test confirmed the great potential of camera-based systems to reduce transit bus side collisions caused by the blind zones of mirrors.

Driver surveys of 28 bus drivers were conducted before and after the controlled driving test to provide valuable feedback on the sideview video system. It was found that bus drivers valued the benefits of having the sideview video system, and the majority agreed that the sideview video system can be useful in helping them see passengers better and observe vehicles in the next lanes during lane changing maneuvers. They agreed that the system can minimize or eliminate the side blind zones of the bus, and the majority agreed that the mirrors become less effective during rainy weather and at night. It was observed that the sideview video system with infrared sensors could perform better than the mirrors in dark conditions and in rain. Also, the wide field of view provided the drivers with a much better sideview, thus creating great potential to avoid vehicles during lane changing maneuvers. Overall, the majority of the participating bus drivers valued and liked the sideview video system, but they were not confident about replacing the mirrors with the system used in the controlled driving test without further enhancement. The survey result suggested that the reliability of the sideview video system needs to be further explored and the system setup can be further improved.

Conclusions: Reducing transit bus side collisions can significantly improve the safety of transit bus operations and save lives. The sideview video systems tested in this study were available as aftermarket systems designed and manufactured to provide additional side views of the vehicle, but were not perfect and were not designed to be used in place of mirrors. Therefore, the existing sideview video system has great potential to be further enhanced and evaluated for use in the field to replace mirrors.

If sideview video systems can be enhanced and implemented in a widespread manner in the future, they can save lives, significantly reduce the number of side crashes due to blind zones of mirrors, decrease crash-related costs, and eliminate the possibility of hitting waiting passengers with mirrors. The successful implementation of sideview video systems on transit buses in Florida will have considerable safety, economic efficiency, and reputation benefits.

FY 2011 Research Program

In July 2010, NCTR completed the process to solicit and select research ideas for the FY 2011 program year. Requests for research ideas and proposals were sent to all Florida transit agency directors, MPO directors, and FDOT public transit managers. Idea requests also were sent to all public transportation-related committees of TRB, APTA committee chairs, Leadership APTA alumni, and national listservs. The NCTR Advisory Committee provided assistance in selecting four core program area and 10 research projects for funding in FY 2011.

Education

NCTR and its parent organization, the USF Center for Urban Transportation Research, continue to support initiatives to enhance professional development of the current and next generation of transportation professionals. These initiatives constantly are modified to reflect evolving needs and resources. Student interest in transportation remains strong, with many professionals pursuing updating of their credentials to remain competitive in a more challenging employment environment. There is a growing recognition of the role public transit will play in transportation in the future and an awareness of how issues such as economic competitiveness, sustainability, funding, and climate impact will influence transportation. The continuing extreme budget pressures on university resources and costs are pushing technology solutions and innovative strategies to the forefront.

Student involvement in project research continues to be a priority of CUTR and the NCTR program. During FY 2010, graduate and undergraduate students were involved in ongoing public transportation research projects and supported by funding from NCTR and numerous other sponsors. The major areas of study of these students are multidisciplinary in nature, including engineering, economics, anthropology, business, geography, and public administration. Through research and professional experiences, NCTR helps develop well-informed, well-educated individuals, several of whom have gone on to work on public transportation and multimodal planning environments, while others, even if not directly employed in the transportation sector, will carry out their career activities with a far richer understanding and appreciation of public transportation.

Course enrollment remains strong, with a continuing shift to higher shares of part-time, certificate, and distance-learning students and fewer full-time graduate students. Job placement is more challenging than in the past but remains stronger than many professions. Planning-focused professionals appear to have a stronger employment environment than do design- or engineering-focused students. The program continues to be proud of its placement record, with numerous students finding increasingly prestigious employment opportunities.

CUTR faculty continue to supplement the academic teaching faculty, offering a breadth and depth of teaching and research opportunities well beyond that which could be supported by the tenure-track faculty alone.

Transportation Certificate Programs

CUTR's newest certificate, the Transportation Systems Analysis Certificate, has been well received, with ongoing inquiries and a growing roster of students pursuing it. The distance learning feature makes it particularly attractive for continuing education for working professionals. We have approached the USF Department of Civil and Environmental Engineering about moving ahead on the implementation of a complementary Transportation Planning Certificate that would target both engineers and non-engineers and would include more opportunities for non-engineering undergraduates, with approval anticipated in the next academic year.

NCTR has continued to explore mechanisms that would enable more graduate student in other universities to take transportation courses at USF and have them be accepted easily as credit toward their degree at their primary university. To this end, CUTR is participating in the Transportation Leadership Graduate Certificate Program, www.transleader.org/index.php, a national initiative to encourage and enable students to take specialized courses at various universities that are eligible towards a national certificate. USF has offered two courses, "Transportation and Land Use" and "Public Transportation," as certificate-eligible courses. The first offering of "Public Transportation" as part of this program is scheduled for Spring 2011.



Other Education Initiatives

Several other initiatives continue to receive attention. The undergraduate course “Transportation and Society,” designed to introduce transportation to undergraduates from various disciplines, remains popular and is now being offered as a distance learning course.

Distance learning delivery has transitioned to use Elluminate Live™ software to enable an easier, more flexible, and lower-cost method for delivering distance learning courses. More courses are being taught through distance learning.

CUTR explored an internship program in conjunction with the high speed rail initiative in Florida. This concept, modeled after the Tren Urbano and Fast Tracks programs in Puerto Rico and Denver, respectively, is designed to couple coursework and internship experience to offer an opportunity to develop talent to support the high speed rail initiatives in Florida and other locations. These types of programs can build professional capacity and enable the universities to provide a very attractive student experience while addressing industry needs for professional capacity, as well as potentially addressing industry research needs. Such programs are, however, expensive. USDOT has reviewed the concept plan and encouraged us to work with the Florida project. We have received strong interest in a university partnership with the Florida HSR project and anticipate further exploration of the prospect of such a program. The very tight resource constraints and very rapid pace of high speed rail implementation make it difficult for the Florida project to take time to explore such a program at this time. Receipt of full funding for the initial Florida HSR project and evidence of a sustainable funding stream for HSR at the federal level will be important considerations in subsequent support of such an initiative.

2009 NCTR Student of the Year: Martin Ackerman

Martin Ackerman served as an NCTR Graduate Research Assistant while earning his master’s degree in Management Information Systems and Decision Sciences in the USF College of Business. During that time, he served as lead application developer in several projects that focused on innovative uses of the Internet and information technologies to increase efficiency, maximize mobility options, and promote safety and security in transit. His responsibilities included project task management, development of many transportation-related Web sites and Web applications, and a Web effort to help both truck and passenger car drivers understand and deal with the hazards of aggressive driving.

Martin was awarded the Latino Scholarship for outstanding academic achievement and was on the National Dean’s List from 2004-2006. He was recognized by the USF College of Business Administration with a faculty scholarship and was a member of Phi Kappa Phi. As a graduate student, his entrepreneurship brought university faculty together to help shape and define the field of Transit Informatics. During a USF visit by RITA Administrator Peter Appel to learn more about NCTR’s work, Martin was offered an internship to work at RITA in Summer 2010, during which he assisted the Administrator with integrating old databases with new databases.

Upon receiving his master’s degree, Martin joined the CUTR faculty. His future goals include the continuation of development in the field of Transit Informatics and assisting NCTR and CUTR in their efforts to remain in the forefront of transit research in the new age of technology.



Martin Ackerman

Technology Transfer

Excellent research is of limited value if the results are not made available to as many parties as possible that might benefit from the findings. Extensive technology transfer is a key determinant of NCTR's value. The following sections summarize specific accomplishments in the area of technology transfer over the last year.

Professional Activities

NCTR researchers continue to have significant involvement with partners in the public transportation industry, including serving on many Transportation Research Board (TRB) committees and holding leadership positions in the American Public Transportation Association (APTA), the Association for Commuter Transportation (ACT), and the Institute of Transportation Engineers (ITE). This has created an opportunity to tout the NCTR program through solicitation of project ideas from organization members and in the transfer of research results. Following is a summary of the participation by NCTR staff as members of industry associations:

- Akerman: Member & Webmaster, Committee on Information Systems and Technology, TRB.
- Audino: Project Panel Chair, Project 06-02, Airport Leadership Development Program, ACRP; Project Panel Chair, Project 11-03, Synthesis of Aviation Workforce, ACRP; Project Panel Chair, Project 03-08, Passenger Air Service Development Techniques, ACRP.
- Barbeau: Member, Expert Group, Java Specification Request 293; Member, Observers List for Java Specification Request 249, Mobile Service Architecture 2; Member, Research & Technology Committee, APTA; Reviewer, Committee on Urban Transportation Data & Information Systems, TRB.
- Bart: Member, Bus Standards Policy/Planning Steering Subcommittee, APTA; Member, Committee on Transit Fleet Maintenance, TRB; Florida Paratransit Maintenance Committee, FDOT; Florida Maintenance Consortium, FDOT; Statewide Rodeo Committee, FPTA.
- Bond (A.): Member, Committee on Transportation and Land Development, TRB; Vice-Chair for National Planning, APA Intergovernmental Planning.
- Bond (J.): Sustainability Transportation Subcommittee, USF; Co-Chair, Conference Program Committee, ACT; SIFE Business Advisory Board Member, USF.
- Brosch: Editorial Board, *Journal of Safety & Security*.
- Byrnes: Associate Staff Instructor, U.S. DOT Transportation Safety Institute.
- Cain: Road Pricing Subcommittee, TRB; Managed Lanes Joint Subcommittee, TRB.
- Catalá: Committee on Geographic Information Systems & Applications, TRB; National Transit GIS Conference Co-Chair, National Transit Institute; Transit GIS Clearinghouse Charter Member, GIS Clearinghouse.
- Chu, X: Editorial Board, *Journal of Safety & Security*.
- Concas: Member, Committee on TDM, TRB; Reviewer, Committee on Travel Behavior and Values, TRB; Reviewer, Committee on Transportation & Economic Development, TRB; Member, International Association of Travel Behavior Research, TRB; Proposal Reviewer, USF Internal Awards.
- Cusack: Member, Bus Maintenance & Technical Committee, APTA; Florida Paratransit Maintenance Committee, FDOT; Florida Bus Maintenance Consortium, FDOT; Statewide Rodeo Committee, FPTA.
- Fabregas: Member, Institute for the Operations Research and Management Sciences, INFORMS.
- Flynn: Member, Committee on Major Activity Center Circulation, TRB.



- Gonzalez-Velez: Young Member, Committee on Visibility, TRB; Transportation Safety Council, ITE.
- Goodwill: Co-Chair, FPTA Annual Conference.
- Gregg: Coordinator, Florida Transit Planning Network.
- Hendricks: Co-Chair, Telework Council, ACT; Steering Committee, 4th Annual Campus & Community Sustainability Conference, Going Green Tampa Bay EXPO; Sustainability Transportation Subcommittee, USF.
- Hillsman: Member, Committee on TDM, TRB; Member, Committee on Transportation Energy, TRB; Sustainability Energy Subcommittee, USF; Member, Bicycle & Pedestrian Advisory Committee, Hillsborough County MPO.
- Hinebaugh: Member, Committee on Bus Transit Systems, TRB; Panel A-23: Cost Effectiveness of Selected BRT Components, TRB; Chair, BRT Subcommittee, TRB; Panel D-13, Guide for Implementing Bus on Shoulder Systems, TCRP; Member, BRT Task Force, APTA.
- Kramer: Member, Committee on Metropolitan Policy, Planning & Processes, TRB; Technical Committee, AMPO.
- Lee: Committee on Winter Maintenance, TRB.
- Lin: Chair, Intelligent Traffic Signal Operations Committee, ITE; Member, Traffic Engineering Council, ITE; Member, Transportation Management Center Committee, ITE; Executive Committee Member, Management & Operations/ITS Council, ITE; Member, Traffic Signal Operations Committee, FDOT.
- Mierzejewski: Project 8-44: Incorporating Safety into Long-Range Planning, NCHRP; Committee on Transportation Programming/Planning/System Evaluation, TRB; Committee on Strategic Highway Program – Capacity, TRB; SHRP-2 Expert Task Group, Project COI: A Framework for Collaborative Decision Making on Additions to Highway Capacity, TRB; SHRP-2 Technical Coordinating Committee on the Capacity Program, TRB; Panel 8-59, Transportation Cost Implications of New Development, NCHRP; Constitutional Amendments Committee, ITE; Student Chapter Award Committee, ITE; Council of University Transportation Centers Executive Committee; Member, Tampa Downtown Partnership.
- Mistretta: Sustainability Transportation Subcommittee, USF.
- Morris: Member, Committee on Marketing and Fare Policy Committee, TRB.
- Perk: Reviewer, Committee on Social/Economics Factors, TRB; Member, Intermodal Operations Technical Forum, APTA; Instructor, National Transit Institute; Member, Committee on Transit Capacity and Quality of Service, TRB; Member, Committee on Intermodal Transfer Facilities Committee, TRB.
- Polzin: Chair, Committee on Using NHTS Data for Transportation, TRB; Member, Policy & Planning, APTA; Member, Committee on Public Transportation Planning & Development, TRB; Member, Committee on Urban Transportation Data/Information Systems, TRB; Committee on Strategies for Improved Passenger and Freight Travel Data, TRB; Education Committee, Southeast Transportation Center; Board of Directors, Hillsborough Area Regional Transit, Oversight Board for the Census Transportation Planning Products, AASHTO; Chair, Planning Committee for NHTS Policy Conference, TRB; Editorial Board, *Journal of Public Transportation*.
- Reep: Associate Staff, Federal Transportation Safety Institute; Chair, Florida Operations Network; Member, Advisory Board, Florida Rural Transit Assistance Program Network.
- Reich: Director of Research, TEAM Florida Board of Directors.
- Sapper: Member, Committee on Public Transportation Safety & Security Task Force, AASHTO; Synthesis SA-24, Rail Security: ROW Surveillance Cameras & Vehicle Security Cameras, TCRP.
- Saxena: Young Member, Committee on Access Management, TRB.

- Seggerman: Member, Panel 08-67, NCHRP; Chair, Planning Council, District 10/FSITE; Member, Committee on Transportation and Land Development, TRB; Panel 25-36, Travel Impacts & Greenhouse Gas Benefits of Rural & Smaller Community Land Use Strategies, NCHRP.
- Staes: Member, National Peer Review Panel, Instructor's Course on Paratransit Operations, TSI; Member, Panel B-36, Updated Methodology for Forecasting Demand, TCRP; Member, Alternative Transportation in Parks & Public Lands National Working Group, FTA; Transportation Work Group, American Cancer Society.
- Thole: Member, Committee on Environmental Justice in Transportation, TRB.
- Volinski: Transit Ambassador Emeritus, TCRP; Member, Research & Technology Committee, APTA; Member, Human Resources Committee, APTA; Member, TRB Committee on Paratransit, TRB; Member, Research Proposal Screening Committee, TCRP; President, Leadership Alumni Association, APTA; Board of Directors, FPTA; Co-Chair, FPTA Annual Conference.
- Williams: Chair, Committee on Access Management, TRB; Member, Panel 03-99, NCHRP; Member, Urban Planning Peer Review Committee, Fulbright (Sr. Specialist Program).
- Winters: Secretary, Board of Directors, TDM Institute, ACT; Information Director, TDM Institute, ACT; Vice Chair, Transportation Planning Council, ITE; Member Emeritus, Committee on TDM, TRB; Executive Committee, Transportation Planning Council, ITE; Sustainability Transportation Subcommittee, USF; Member, 2010 Conference Breakout Session Planning Committee, ACT; Secretary, Transportation Planning Council, ITE.
- Zambito: Member, International Bus Roadeo Committee, APTA.

Publications and Presentations

During FY 2010, NCTR researchers were active in publishing and presenting at state and national conferences and meetings, as follows:

Publications

- Barbeau, S., Georggi, N.L., and Winters, P., "Integration of GPS-Enabled Mobile Phones and AVL: Personalized Real-Time Transit Navigational Information on Your Phone," *TRB 89 Compendium*.
- Barbeau, S., Labrador, M., Winters, P., and Georggi, N.L., "Automating Mode Detection for Travel Behavior Analysis by Using GPS-Enabled Mobile Phones and Neural Networks," *Institution of Engineering and Technology Intelligent Transportation Systems Compendium*.
- Barbeau, S., Winters, P., Georggi, N.L., et al., "TAD: Utilizing GPS-Enabled Mobile Phones to Aid Transit Riders with Special Needs," *Institution of Engineering and Technology Intelligent Transportation Systems Compendium*.
- Bart, E., "Ten Years Down the Road: Predictors of Driving Cessation," *The Gerontologist*.
- Bond, A., "Estimating a Statewide Transportation Infrastructure Funding Shortfall Using MPO LRP," "The Merits of Using Metro Statistical Areas to Delineate MPO Organizational Boundaries," *TRB 89 Compendium of Papers*.
- Bond, A., and Kramer, J., "Governance of MPO: Board Size, Composition, and Voting Rights," "Evolution of MPO Planning in Florida: 1997-2008," *TRB 89 Compendium*.
- Cain, A., "Vehicle Surfaces: A Parking Lot PV Solar Energy Powered General System," *SAE Conference Proceedings*.
- Cain, A., and Flynn, J., "Quantifying the Importance of Image and Perception of Bus Rapid Transit," *Public Transport International*.



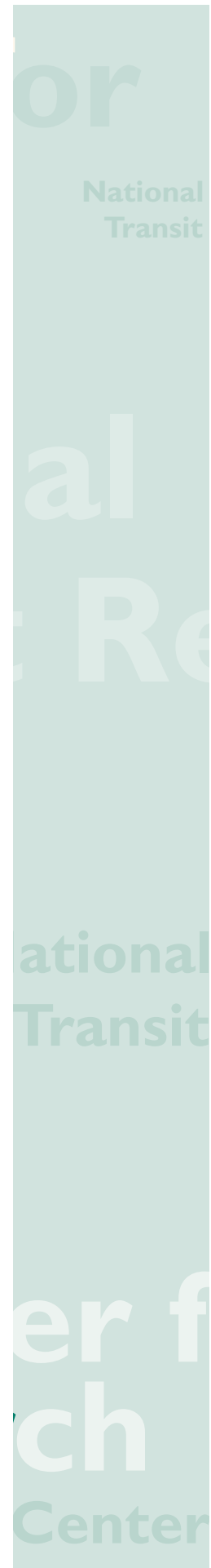
- Chu, X., "Measuring Injury Risks from Motor Vehicle Crashes with an Integrated Approach, *Journal of Transportation Safety & Security*.
- Concas, S., and DeSalvo, J., "Integrating Transit Travel Behavior and Urban Form," *Proceedings of the 12th International Conference on Travel Behavior*.
- Kourtellis, A., Lee, C., and Lin, P-S., "Analysis of Potential Cost Savings for Large Trucks with Rear Video Systems," *TRB 89 Compendium*.
- Lee, C., Kourtellis, A., Lin, P-S., and Hsu, P., "Evaluation of the Effectiveness of Rearview Video Systems as a Countermeasure for Truck Backing Crashes for a Controlled Test," *TRB 89 Compendium*.
- Lin, P-S., and Fabregas, A., "Effect of Detection and Communication Failures on Traffic Signal System Performance, *FLITE*.
- Lin, P-S., Lee, S., and Saxena, M., "What We Learned from Better Driver Campaign," *FLITE*.
- Perk, V., Catalá, M., and Mugharbel, M., "Impacts of Bus Rapid Transit Stations on Surrounding Single-Family Home Values: Study of Pittsburgh's East Busway," *TRB 89 Compendium*.
- Sapper, D., et al., "Understanding Transit Scenes: A Survey on Human Behavior Algorithms."
- Sapper, D., and Reep, A., "Bus Incident Reporting, Tracking and Analysis System," *World Transit Research Clearinghouse*.
- Seggerman, K., Williams, K., Lin, P-S., and Fabregas, A., "Impact Fee Emphasizing VMT," "Defining a Transportation Mobility Fee for Florida," "Hybrid Transportation Mobility Fee," *TRB 89 Compendium*; "Transportation Utility Fee," *ITE 2010 Tech Conference Compendium*.
- Thole, C., and Perk, V., "Impacts of Proximity to BRT on Surrounding Property Values and Land Use," *APTA Conference Compendium*.

Presentations

- Audino, M., "Alternative Mobility Approaches," *FPTA/FDOT/CUTR Professional Development Workshop*.
- Barbeau, S., "Location-Based Services Best Practices & Mobile Application Optimization," *Sprint Open Developers Conference*; "Cell Phones and Transportation: Emerging Applications," *Florida ITE Annual Meeting*; "Travel Assistance Device testing with Miami-Dade Transit," *Miami-Dade County Conference on Disabilities Issues*.
- Barbeau, S., Georggi, N.L., and Winters, P., "TRAC-IT: Travel Behavior Data Mining Using GPS-Enabled Mobile Phones," *USDOT TMIP National Webinar*; "Integration of GPS-Enabled Mobile Phones and AVL: Personalized Real-Time Transit Navigation Information on Your Phone," "TRAC-IT: Travel Behavior Data Collection Using GPS-Enabled Mobile Phones," *89th Annual TRB Meeting*.
 - Barbeau, S., and Hillsman, E., "OpenStreetMap and TAD: Utilizing Technology for Sustainability," *USF Campus Sustainability Conference*; *OpenStreetMap - An Online Open Source for Mapping and Analysis*, "GIS in Transit Netcast"; "Finding Your Way Around USF (and Elsewhere) with OpenStreet Map," *Juniper-Poplar Dorm/USF Student Meeting*; "On-Campus Trip Planning for USF," *Accessi-Bull: Showcasing Abilities Conference*.
 - Barbeau, S., and Sheppard, "Travel Assistance Device," *2009 Hillsborough County Alliance for Citizens with Disabilities Awareness Expo*; "Travel Assistance Device: Increasing Ridership of Fixed-Route Transit by Utilizing GPS-Enabled Cell Phones," *FDOT District 7 Transportation Advisory Group Meeting*; "Travel Assistance Device: Increasing Ridership of Fixed-Route Transit by Utilizing GPS-Enabled Cell Phones," *Transportation Disadvantaged Coordinators Board Meeting*; "Cell Phones and GIS: Lessons Learned from Developing Transit Navigation Software," *GIS in Transit Conference*.



- Bond, A., "Calculating Florida's Funding Shortfall Using MPO Plans," 2010 Transportation Engineers Technical Conference; "Estimating a Statewide Transportation Infrastructure Funding Shortfall Using MPO LRP;" "Governance of MPO: Board Size, Composition, and Voting Rights;" "The Evolution of MPO Planning in Florida 1997-2008;" "The Merits of Using Metropolitan Statistical Areas to Delineate MPO Boundaries;" 89th Annual TRB Meeting; "Becoming an Urban Planner;" APA National Conference; "Estimating a Statewide Funding Shortfall Using MPO LRP;" AMPO Annual Conference.
- Bond, A., and Kramer, J., "MPO Staffing and Governance Structures," AMPO Annual Conference
- Bond, J., "Transportation's Impact on Job Growth," Women in Government; "Best Workplaces for Commuters," Southeast Association for Commuter Transportation; "Best Workplaces for Commuters Employer Spotlight," Google Web Conference.
- Bond, J., and Winters, P., "Getting Your Message Out with Social Media," FPTA/FDOT/CUTR Professional Development Workshop.
- Byrnes, D., "A Prescription for Safety," "Drug and Alcohol Program Compliance," National Transit Institute Transit Trainers Workshop; "Reasonable Suspicion Determination for Supervisors;" "New Drug and Alcohol Training Media," FPTA/FDOT/CUTR Professional Development Workshop.
- Cain, A., panel session on "Transportation - Less Rhetoric, More Solutions," Fairfax County Chamber of Commerce; "Developing a Printed Transit Information Material Guidebook," 5th National GIS in Transit Conference.
- Catalá, M., "Coordinating Improvements - Bus Stop Inventory and Maintenance Application," FPTA/FDOT/CUTR Professional Development Workshop.
- Concas, S., "Estimating the Benefits of TDM Using the TRIMMS Model," Annual ITE Meeting; "Estimating the Social Costs and Benefits of TDM Programs using TRIMMS;" 89th Annual TRB Meeting; session moderator, "Public Transport - New Approaches to Planning and Design," 12th International Conference on Travel Behavior, India; "The Activity Loc: A Platform to Personalize Cost Externalities from Daily Car Trips," Societa Italiana dei Docenti di Trasporti.
- Concas, S., and DeSalvo, J., "Integrating Transit Travel Behavior and Urban Form," 12th International Conference on Travel Behavior, India.
- Flynn, J., "Quantifying the Importance of Image and Perception to Bus Rapid Transit," APTA Annual Meeting.
- Georggi, N.L., "Travel Assistance Device," Florida Public Transportation Association Conference.
- Georggi, N.L., and Sheppard, "Travel Assistance Device," Association for Travel Instruction Annual Conference.
- Hendricks, S., "Programs that Match Seniors with Volunteer Drivers," Florida Public Transportation Association Conference.
- Hillsman, E., "Making TDM More Effective in Reducing CO2 Emissions," Association for Commuter Transportation International Conference.
- Kramer, J., "Multi-MPO Alliances: Acting Like a Region While Maintaining Autonomy;" AMPO Annual Conference.
- Kramer, J., and Bond, A., "MPO Staffing and Structure," APA National Conference.
- Lin, P-S., "Approaches that Support Enforcement of Red Light Running Laws," ITS Conference.
- Mistretta, M., "The New FTPN Web Site and TDP Resource Center," FPTA Conference; "TBEST Transit Modeling;" 5th National GIS in Transit Conference.



- Mistretta, M., and Begley, “How Are We Getting the Word Out about the Environmental Benefits of Transit?” Campus and Community Sustainability Conference; “Transit’s Role in Environmental Awareness Initiatives,” FPTA/FDOT/CUTR Professional Development Workshop.
- Perk, V., moderator, “Transit Quality of Service Measurements,” 89th Annual TRB Meeting.
- Perk, V., Catalá, M., and Mugharbel, M., “Impacts of Bus Rapid Transit Stations on Surrounding Single-Family Home Values: Study of Pittsburgh’s East Busway,” 89th Annual TRB Meeting.
- Polzin, S., “Changing Travel Behavior and Future VMT Forecasts,” ASCE Florida Section Annual Meeting; “TDP Guidance and Review Manual for Producing a Transit Development Plan,” FPTA Annual Meeting; “High Speed Rail in Florida: Observations and Critical Issues,” Campus and Community Sustainability Conference; “Future Vehicle Miles of Travel,” 9th Annual New Partners for Smart Growth: Building Safe, Healthy, and Livable Communities; “Early Observations on 2009 NHTS,” 89th Annual TRB Meeting; “Data Needs and Considerations Related to a National Performance-Based Planning Process,” AASHTO Standing Committee on Planning; “Baseball, Hot Dogs, Apple Pie, and Livability,” TRB Executive Committee Policy Session; “Planning for Changing Travel Behavior,” 2010 ASCE Annual Seminar; “Observations on Transportation in Tampa Bay,” NAIOP Tampa Bay Watch.
- Reep, A., “Effective Presentation Skills II: The Do’s and Don’ts of Effective Speaking,” FPTA/FDOT/CUTR Professional Development Workshop.
- Reich, S., “Transportation at a Crossroads,” FTC/Floridians for Better Transportation; “An Overview of Transportation Fuels,” FPTA/FDOT/CUTR Professional Development Workshop; “Transportation and Energy, A Modal Comparison,” Florida Public Transportation Association Conference.
- Sapper, D., “System Safety Program Plans and Security Program Plans,” FPTA/FDOT/CUTR Professional Development Workshop.
- Seggerman, K., “Transportation Mobility Fee,” National Impact Fee Roundtable.
- Seggerman, K., Williams, K., Lin, P-S., and Fabregas, A., “Defining a Transportation Mobility Fee for Florida,” “Hybrid Transportation Mobility Fee,” “Impact Fee Emphasizing VMT,” 89th Annual TRB Meeting.
- Staes, L., “Alternate Mobility Approaches,” FPTA/FDOT/CUTR Professional Development Workshop.
- Thole, C., and Perk, V., “Bus Rapid Transit and Land Use, Connecting Communities,” BRT Transit Seminar.
- Volinski, J., “Careers in Transit,” Public Transportation Workforce Development Summit; “Careers in Transit DVD,” FPTA Annual Meeting; “Lessons Learned in Transit Efficiencies - Third Edition,” APTA Conference and Virginia Transit Association Webinar; “Best Practices in Communicating with Bus Operators,” Virginia Transit Association; “Public Transportation Workforce: Challenges and Opportunities,” American Association of Community Colleges.
- Williams, K., “Corridor Management: Legal Considerations and Best Practices,” FDOT District 7; “Corridor Preservation: Legal Considerations and Best Practices for Local Government,” 89th Annual TRB Meeting.
- Williams, K., and Seggerman, K., “Proposed Practice for Review and Assessment of Local Mobility Plans,” FPTA/FDOT/CUTR Professional Development Workshop.
- Winters, P., “Welcome to the TDM Community: Tools and Resources for TDM Newcomers,” “Review of COMMUTER Model and Worksite Trip Reduction Model,” “TRIMMS - Trip Reduction Impacts of Mobility Management Strategies,” “Examples of How to Measure TDM Programs and Their Effectiveness” (moderator), Association for Commuter Transportation International Conference; “Embracing a Shared Vision with Our TDM Partners,” Virginia Transit Association.

Training

During FY 2010, NCTR researchers were active in either providing or facilitating the following training sessions:

CUTR/NCTR

- AICP Prep Class - Suncoast Chapter APA
- GIS in Transit Conference
- Grants Management Training Workshop
- Introduction to Urban Transportation Planning
- ITS and Traffic Management
- Land Development & Access Management
- MPOAC Weekend Institute For Elected Officials
- NTI OpenStreet Webinar
- NTI Advanced Mobility Device Securement
- NTI Infectious Disease Awareness and Prevention
- Substance Abuse Management Compliance Program Update
- Transit Service Options
- Trends Affecting Transportation Systems
- TRIMMS Model
- Your Commuting Carbon Footprint
- National Transit Database Reporting & Data Collection Seminar
- Speed Monitoring Data Collection Summit

Florida Operator Training

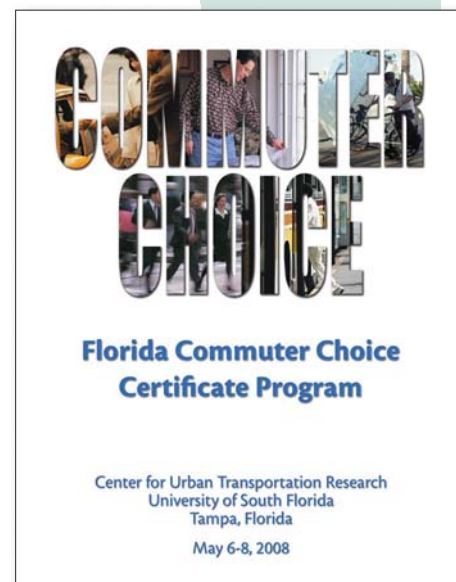
- Conflict Avoidance: The Art of Maintaining Control
- Curbing Absenteeism in the Transit Workplace
- Fatigue Awareness Seminars for Transit Agencies
- Instructor's Course in Bus Operator Training
- Instructor's Course in 1-Day Paratransit Operator Training
- TSI Instructor's Course in Excellence

Florida RTAP

- Paratransit Management & Operations
- Handling Transit Customer Complaints Webinar
- Maintaining Ridership in Tough Times Webinar

FPTA/FDPT/CUTR Professional Development Workshop

- Alternative Mobility Approaches
- Are Flexible Leadership Styles Effective?
- Effective Presentation Skills I: PowerPoint Do's and Don'ts
- Effective Presentation Skills II: The Do's and Don'ts of Effective Speaking
- Emergency Planning for Elderly and People with Disabilities
- Finding Positives in Difficult Times
- Fuel Efficiency and Transit's Role in Environmental Awareness Initiatives
- Getting Your Message Out with Social Media
- It's All About Change
- Managing Employee Performance Problems
- Marketing Session: Public Involvement and Advocacy
- New Drug and Alcohol Training Media
- ADA Complementary Paratransit Guidance
- System Safety Program Plans & Security Program Plans



TDP Service & Capital Planning: Tips and Tools
 Transit Emergency Management and Evacuation Planning
 Transit Grants Overview and Compliance
 Transit in Growth Management & Sustainability
 Transit ITS
 Transit Procurement

STTTAP

Integrating Transit Applications: Defining Data Interfaces Using TCIP
 ITS Regional Workshop
 NTI National Transit Database
 NTI System Security
 Reasonable Suspicion Determination for Supervisors
 Securing Community Mobility
 Substance Abuse Management Compliance Program Update
 Supervisor's Certification Course
 Transit Industrial Safety Management
 Transit Threat and Vulnerability
 Radio Communications for Transit Dispatch Webinar

TDM

Bicycle and Pedestrian Programs
 Boosting Morale, Performance, and Savings via Compressed Workweeks
 Commuter Choice Support/Smart Commute
 Creative Excellence for Successful Employer Programs
 Creative Thinking for the TDM Professional
 Effective Business Communication Skills
 Encouraging and Supporting Bicycling Through Employer Initiatives
 Introduction to Car Sharing
 Introduction to Parking Management
 Introduction to Telework
 RideShare Options
 Tweeting Demand Management - Doing an About Face(book) on Marketing Travel



Journal of Public Transportation

The *Journal of Public Transportation* is a respected international journal containing refereed papers on current, original research and case studies associated with public transportation and related policy issues. Topics are approached from disciplines including economics, engineering, planning, BRT, GIS, finance, and safety, and include methodological, technological, and financial perspectives, with emphasis on the identification of innovative solutions to public transportation problems. The journal has nearly 2,200 subscribers from all around the world and boasts a distinguished editorial board.

FLOW Newsletter

In 2007, NCTR initiated a new e-newsletter, *FLOW: Moving People and Ideas*. *FLOW* is another example of how NCTR shares the information generated through its research. The newsletter summarizes recently completed projects, provides updates on the NCTR education program and student accomplishments, and directs subscribers on how to access NCTR's wealth of information.

Net Conferencing: Learn More—Travel Less

Netconferences provide a cost-effective method for reaching large groups of transportation professionals in real-time, requiring only a telephone, computer, and an Internet connection. All NCTR netconferences are available for on-demand viewing after the live presentation from the NCTR Web site at www.nctr.usf.edu.

As with the past several years, NCTR recognizes the importance of partnering with other groups to expand our reach. For example, we have partnered with chapters of the Association for Commuter Transportation (ACT) to host netconference events in their cities for ACT members and non-members. These events are held at 15 to 30 locations and attract up to 200+ people for each event. In FY 2010, NCTR sponsored the following netconferences in partnership with ACT:

Boosting Morale, Performance, and Savings via Compressed Work Weeks” Netconference (June 2010)

Two presenters shared their organization’s experiences in introducing compressed work week programs for their employees.

- Pier Simeri, Community Relations & Public Affairs Director for the City of Avondale (Arizona), discussed the city’s Green Friday program. In June 2008, Avondale (population 82,000) was the first city in the state to move to a four-day work week. Known as Green Friday, the program was embraced by employees and the public alike as a means of saving taxpayer dollars, providing enhanced customer service with longer hours Monday through Thursday, reducing single occupancy vehicle trips, and boosting morale and productivity. She described how they made it work with right timing, progressive leadership, flexibility, understanding customers’ needs, and creative marketing.
- Jeff Herring, Executive Director of the Department of Human Resource Management for the State of Utah, summarized the Working 4 Utah Initiative. In August 2008, Utah Governor Jon Huntsman launched the program intended to extend state government services that are not already available during extended hours and weekends, from 7 a.m. to 6 p.m., Monday through Thursday. The purpose of the initiative was to make a positive impact in the areas of energy consumption, extended customer service, employee recruitment and retention, and reducing the environmental impact of state government operations. He summarized the lessons learned and impacts that informed the discussion about whether the change should be made permanent. The final employee survey indicated the negative impact of the initiative on commuters using transit was less than anticipated (9% actual instead of 14% anticipated). While this is encouraging, the number of employees impacted is still significant.

Creative Excellence for Successful Employer Programs (March 2010)

Three speakers shared their creative insights into their award-winning programs so other TDM program managers can learn from their successes and learning experiences:

- Murder Mystery: Hollywood Homicide at the Road Rage Company. To enliven part of the SoCal Chapter of ACT’s Regional Sustainability Conference, Caltech’s Employee Transportation Coordinator Kristina Valenzuela and others on the SoCal ACT Board wrote a “murder mystery” based on the board game Clue. Participants learned how to use this innovative and inexpensive idea that combined rideshare topics with relevant issues such as the environment and entertainment for worksite rideshare promotions. This project won the 2009 Creative Excellence Award (Under \$8,000 Budget) from ACT.



- Amazing Rideshare Challenge Campaign. Bill McCaughey of Inland Empire Commuter Services (IECS) described this campaign, which was designed to provide ETCs with easy and entertaining ways to promote a Rideshare Week campaign at their worksite. As a result of the challenge, every employer that attended the event participated in the pledge card campaign. IECS received over 11,000 pledge cards for Rideshare Week, representing a 47 percent increase in program participation. Participants heard how IECS planned and conducted the challenge and how half of the 160 employers met or exceeded their pledge card goal. The project won the 2009 Creative Excellence Award (Over \$20,000 Budget) from ACT.
- Joseph Cox, Employee Transportation Services Office of the National Institutes of Health (NIH) and recipient of ACT's 2009 Employee Transportation Champion Award, discussed NIH's very successful transportation program, which includes the NIH Parking Program, all ridesharing/vanpooling efforts, and the NIH's 5,000+ member Transhare Program for the largest federal employer in Montgomery County (Maryland), with over 18,000 federal employees at the Bethesda Campus. Attendees heard how NIH's programs such as Lunch Time commuting seminars and the Transhare Program have decreased the number of vehicle trips to the NIH campus to 42 percent below 1992 levels.

“Tweeting Demand Management—Doing an About Face(book) on Marketing Travel Choices” (October 2009)

Participants heard about the real-world success stories of TDM organizations in Birmingham, Las Vegas, Atlanta, and Ontario as they harness the power of social networks and social media to join the digital conversation, engage in dialogue with commuters in their areas, and realize a return on engagement that motivates change. The desired outcome was to help transportation professionals start thinking more like a social marketer by learning how to use social media to change travel behavior and walk away knowing the needs of their TDM program before getting started. Presenters included Aaron Gaul, Manager of UrbanTrans Consultants (Toronto), and Candace Kemp McCaffery, Senior Vice President and Director of Interactive Services & Social Media for Cookerly Public Relations (Atlanta).

NCTR Web Site

The NCTR Web site attracted nearly 23,000 unique visitors in FY 2010. The top 10 downloads continue to reflect interests in a range of public transportation topics and audiences that benefit from NCTR research, education and technical assistance efforts:

1. *Journal of Public Transportation*, Volume 12, Issue 1
2. *Journal of Public Transportation*, Volume 11, Issue 3
3. *Journal of Public Transportation*, Volume 11, Issue 4
4. Quantifying Net Social Benefits of Vehicle Trip Reduction Impacts (77805)
5. Development of a Large Bus / Small Bus Decision Support Tool (77713)
6. Impacts of More Rigorous ADA Paratransit Eligibility Assessments on Riders with Disabilities (77721)
7. Programs That Match Seniors With Volunteer Drivers (77717)
8. *Journal of Public Transportation*, Volume 12, Issue 4
9. Tweeting Demand Management—Doing an About Face(book) on Marketing Travel Choices (handouts from netconference)
10. *Journal of Public Transportation*, Volume 12, Issue 3

In addition to the many reports people have accessed from the NCTR website, they have also accessed a DVD produced by NCTR entitled “Careers in Transit,” a ten-minute video introducing teenagers to the types of positions available at public transit agencies. This DVD was created in partnership with the Hillsborough Area Transit Authority, and contributes to the effort of workforce development for the transit industry. The link on the website takes the visitor to You Tube, where the DVD has been viewed over 6,000 times.

Peer-to-Peer Exchanges

NCTR has nearly 4,900 active subscriptions to its public transportation-related listservs, an overall net increase of 780 subscriptions (19%) in FY 2010.

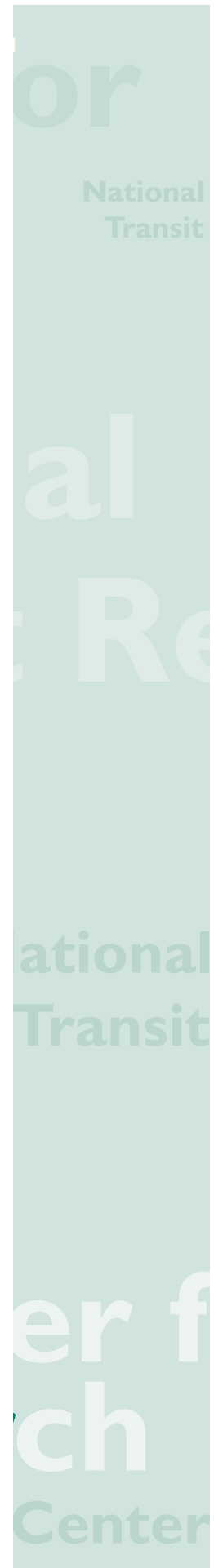
Listserv	Type	Subscribers (as of 6/30/10)	FY10 Net Change in Subscribers
BFM-General (transit maintenance)	Discussion Forum	270	+7%
Bus Rapid Transit (BRT)	Discussion Forum	381	+7%
Journal of Public Transportation (JPT)	Announcement	425	+4%
National Center for Transit Research (NCTR)	Announcement	1,134	+10%
Parking Management (Parking)	Discussion Forum	288	+19%
Rural Transit Assistance Program (RTAP)	Discussion Forum	116	+14%
Sustainable Transport Indicators	Discussion Forum	180	21%
Telework	Discussion Forum	348	+7%
Transportation Demand Management (Transp-tdm)	Discussion Forum	1,735	+13%

To subscribe to any of the above listservs, go to http://lists.cutr.usf.edu/read/all_forums.

All NCTR abstracts, announcements, and listserv postings also are published as RSS feeds. This method allows NCTR to deliver information to the desktop of transportation professionals and others (e.g., customized Google or Yahoo home page) without cluttering email inboxes.

Stakeholder Support

Building and maintaining customer relationships are critical for growth and continued success in business. NCTR takes the approach that this holds true for technology transfer and does not pretend to be a one-stop shop with all the answers; we do, however, seek to be the first stop. NCTR wants to make it easier for people to quickly get answers to their questions. We realize that achieving our mission of making public transportation and alternative forms of transportation safe, effective, efficient, desirable, and secure requires the establishment of a range of relationships – NCTR to the stakeholder and as peer-to-peer. The listservs described above help peers get immediate answers. However, many people ask the similar questions, and new subscribers may have missed the responses to a similar question. Consequently, we are using the leading customer relationship management (CRM) solution to provide intelligent self-service options from people to search frequently-asked questions drawn from many of the questions posed via the listservs. This approach allows NCTR to respond promptly to customer questions while keeping costs low. Access to over 625 frequently-asked questions, ranging from case studies to job descriptions to commuter benefit implementation, are contained in the NCTR CRM. This self-service approach provides a means to reduce the total number of basic inquiries or repeat





requests that require personal attention by NCTR researchers. Questions to NCTR also help identify research needs and topics for netconferences.

Best Workplaces for Commuters™ is an NCTR-supported initiative to reach out to private and public employers to enhance the understanding and productivity of programs aimed at increasing transit ridership, decreasing traffic congestion, and reducing emissions and energy use. Since assuming management from the Environmental Protection Agency, NCTR has focused on establishing Best Workplaces for Commuters™ as a community of employers. In FY 2010, NCTR introduced a \$230 membership fee for workplaces that meet the National Standard of Excellence as established by the Environmental Protection Agency and enhanced by NCTR to help to continue to expand the program. Approximately 200 workplaces are members (www.bestworkplaces.org).

Conclusion

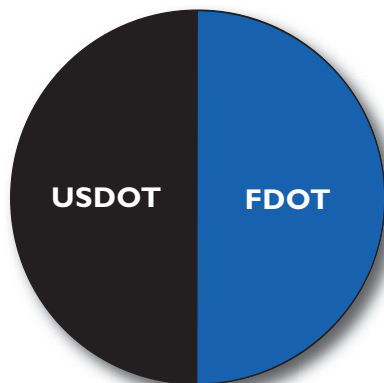
At the completion of its 11th year, CUTR's National Center for Transit Research continues to produce a large volume of high-quality research of practical value to public transportation agencies and commuter assistance programs throughout the country. The results of the research are being effectively distributed through a variety of means, including new electronic techniques that allow fast and flexible access to the information NCTR is producing. The program is helping to cultivate the next generation of transportation professionals by providing opportunities for students who assist in the research being conducted. The vast majority of them are joining public and private sector transportation agencies upon graduation. NCTR also contributes to a national interdisciplinary transportation certificate program that will attract students and current practitioners to upgrade their skills and credentials.

NCTR always has enjoyed a strong relationship with the Florida Department of Transportation and is leveraging UTC program funds through partnerships and contracts with transportation authorities and the Federal Transit Administration. The research faculty and students of NCTR look forward to contributing to the enhanced performance of public transportation agencies throughout the nation.

Financial Summary

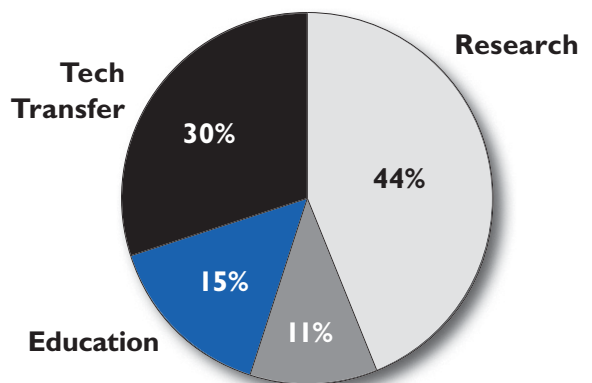
The following charts present the funding sources for FY 2010, the 11th year of the NCTR program, and FY 2010 expenditures based on the key areas of the NCTR Program.

\$816,600 (50%)



\$816,600 (50%)

NCTR Funding Sources



Administration

NCTR Expenditures

National Center for Transit Research partners:



Center for Urban Transportation Research
University of South Florida
4202 E. Fowler Ave., CUT100, Tampa, FL 33620-5375
(813) 974-3120 ■ (813) 974-5168 fax ■ www.cutr.usf.edu

