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Annual Report - 2006

NCTR

National Center for Transit Research

**Annual Report
October 2006**

Message from the Director

The theme of the National Center for Transit Research is "to enhance the performance and relevance of public transportation and alternative forms of transportation in urban areas." I sometimes say that since ridership on public transit systems in the United States has gone up by over 20% since the time NCTR was created, we must be doing a great job! While many factors influence transit use, I firmly believe that NCTR's contributions have helped transit agencies and transportation management associations improve their performance and attract more people to the alternatives they offer travelers. And when they do, they help the U.S. DOT in reaching the national goals of providing a transportation system that promotes safety, global connectivity, environmental stewardship, and security.

NCTR's faculty have been discovering new information through disciplined research; providing valuable assistance and information to transportation agencies and professionals through reports, papers and presentations, training, and electronic communication networks; and helping students prepare for transportation careers. Our research faculty completed 12 research reports in the past year, all of which are available at our website at *www.nctr.usf.edu*.

NCTR faculty made over 50 presentations at state and national conferences last year. NCTR is unique in its efforts to share information through listservs that have more than 2,000 members. Transportation professionals and students from around the world express their appreciation for this service that allows flexible and frequent trading of information in a skillfully managed environment.

One of the most noticeable benefits provided by NCTR last year was the production of multiple netcasts for transportation demand managers. Those in attendance (up to 150 in each one) were able to do so from the convenience of their office computer watching PowerPoint presentations while being able to listen and interact through their phones at no charge. These netcasts have been a major benefit for those who can not attend national conferences.

NCTR continues to provide one of the richest experiences for students desiring a career in transportation. Not only do they have access to more than a dozen courses to solidify transportation theory, but they also have the opportunity to work on projects with NCTR researchers who have substantial experience in operating transportation agencies. Students who have worked with NCTR now hold significant transportation positions such as transit agency general manager, DOT District program manager, and FTA program manager. USF continues to develop certificate and degree programs that attract students and professionals at every level. There is an emphasis on distance learning opportunities that give people the flexibility to enhance their credentials and contribute more to the transportation community.

We are excited about the opportunities to continue to add value to transportation agencies, professionals, and students. While we are proud of what we do, we know it is not about us; it is about how we are helping everyone else in the transportation community perform at their highest level. We look forward to continuing this UTC mission.

Joel Volinski

Joel Volinski, NCTR Director

Contents

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 in Tampa by the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991.

Theme of NCTR

The theme of NCTR is "to enhance the performance and relevance of public transportation and alternative forms of transportation in urban areas." NCTR is focusing on these modes to help promote USDOT's strategic goals of safety, mobility, global connectivity, environmental stewardship, and security to help ensure the Nation's economic growth, development, and sustainability. Virtually all of the projects undertaken at NCTR are, and will continue to be, dedicated to improving the ability of operating agencies (transit authorities, commuter assistance programs, transportation management associations, Departments of Transportation, etc.) to provide their services in a manner that is efficient, productive, and attractive to the traveling public, and in a manner that adds value to the communities they serve.

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 (USF). Following are key personnel of NCTR.

Director	Joel Volinski
Administrative Director	Dennis Hinebaugh
Communications Director	Patricia Ball
TDM Program Director	Philip Winters
Education Director	Steve Polzin
Transit Training Program Director	Lisa Staes
Transit Management and Innovation Director	Rob Gregg
NCTR Program Assistant	Lisa Maitland

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. This concentration of talent and research provides exceptional 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, utilized, or otherwise applied.

Program Overview

Funding

NCTR has now completed its seventh 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 staff over the last 18 years. Federal funds for the program are matched with a greater than 100 percent cash match from the Florida Department of Transportation (FDOT), creating a doubling of total program funding.

The FDOT funding used to match the USDOT funds is made available at a 10 percent indirect rate, compared to the federal indirect rate of 45 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 it is important to note that the relationship remains strong, with FDOT remaining committed to providing matching funds for the duration of the program. FDOT also has designated three senior members of its management staff to serve on the NCTR Advisory Board to help select future projects and guide the program.

Advisory Committee

The NCTR Advisory Committee was created during the first six months of the program and consists of 13 experts in the public transportation community with knowledge in the areas of public transportation research and transit planning and operations. The members and their affiliations are as follows:

Joe Calabrese
General Manager
Greater Cleveland Regional Transit Authority

Roy Chen
Engineer, Research Office
Federal Transit Administration

Ed Coven
State Transit Office Manager
Florida Department of Transportation

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

Dr. Minnie Fells-Johnson
Public Transportation Consultant

Ysela Llort
Asst. Secy., Intermodal Systems Development,
Florida Department of Transportation

Richard Long
Director, Office of Research
Florida Department of Transportation

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

Jose-Luis Mesa
Director, Miami-Dade MPO

Louis Sanders
Director of Research and Technology, APTA

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

Donna Vlasak
Senior Program Officer
Transportation Research Board

Joel Volinski
Director, NCTR

Year 7 Accomplishments

Research

The seventh year of the NCTR program has supported 17 projects approved by the NCTR Advisory Committee. These projects consist of 6 core programs that will be conducted throughout the life of NCTR and 11 newly-selected research projects that explore methods to accomplish the goals of the USDOT, 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
- National Bus Rapid Transit Institute (NBRTI)
- STEP (Student Transportation Education Program)
- ongoing production of teleconferences and webcasting
- graduate student professional development
- *Journal of Public Transportation*

In FY 2006, 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 100 research ideas were received, and 11 were selected for funding.

The table below shows the titles and project numbers for the 12 NCTR research projects completed during FY 2006. A sample summary of three of these projects follows in the text below. These projects are available in html and pdf formats on our website at *http://www.nctr.usf.edu/*.

NCTR FY 2006 Completed Research Projects	Project ID#
Assessing the Hierarchy of Needs in Levels of Service	527-08
Public Transit in America: Evidence from the 2001 National Household Travel Survey	527-09
Guidebook for Startup Transit Agencies	576-04
A Return on Investment Analysis of Bikes-on-Buses Programs	576-05
Intra-Urban Circulator System	576-08
Special Event Transportation Service Planning & Operations Strategies for Transit	576-09
Impacts on Transit Oriented Development on Public Transportation Ridership – Phase 1	576-10
Incorporating TDM into the Land Development Process	576-11
Case Studies in Environmental Justice and Public Transit Title VI Reporting	576-12
Update Methodology for ADA Demand Estimates: Lessons Learned	576-13
Teenage Attitudes and Perceptions Regarding Transit Use	576-14
Transit Use Viability among Older Drivers Losing Privileges	776-01

Summaries of Selected Completed Projects in NCTR's 7th Year

Guidebook for Start-up Transit Agencies
(Ann Joslin)

The objective of this project was to develop a guidebook for use by agencies in the process of initiating first time transit systems, as well as to provide a comprehensive overview of the planning and programming aspects of the public transportation environment. The guidebook is designed to act as a consolidated source to inform agency personnel of various activities, procedures, and programs related to initiating and continuing to operate a public transit agency. By detailing the wide assortment of information related to starting and operating public transportation agencies, this document was also envisioned as a resource document and transit primer for those employees and policy makers new to the public transit industry, even if they have joined an established transit agency.

The report provides an overview of the institutional environment that public transit systems must understand, including the Florida DOT and the Federal Transit Administration. Federal and state transit funding sources, regulations, and requirements are summarized. The key steps involved in the initiation of new transit systems are detailed and general timelines are provided.

The final report for this project is available at *http://www.nctr.usf.edu/pdf/576-04.pdf.*

Traveling Smart: Increasing Transit Ridership Through Automated Collection (TRAC-IT)
of Individual Travel Behavior Data and Personalized Feedback
(Phillip Winters)

This final report is the first in a series to describe a new joint collaboration research effort between the Transportation Demand Management Program at CUTR and the Computer Science Engineering Department at the USF College of Engineering. The research focuses on using innovative technology to better understand and pattern household travel behavior for the purposes of educating, promoting, and encouraging households to utilize other alternatives to driving in general and to driving alone in particular. This study documents Phase 1 of the research effort, the development and preliminary testing of a prototype unit and a travel feedback advisory system.

The scope of Phase 1 called for preliminary development and testing of a portable unit consisting of a personal digital assistant (PDA), a global positioning system (GPS) device, and a wireless card, all-in-one unit nicknamed "TRAC-IT." With innovations emerging daily in this field of technology, a GPS-enabled cellular phone was briefly investigated as a possible alterative for the PDA TRAC-IT unit and showed promise. Phase 2 will investigate and analyze the impact of the travel feedback advisory system on household travel behavior. Phase 3 in this research effort will be dedicated to the design, development, and testing of the GPS-enabled cellular phone as a TRAC-IT unit. The TRAC-IT unit was designed to collect comprehensive individual trip data including start time, end time, origin, destination, travel speed, trip route, and trip distance with minimal input from participants. Limited field-testing was conducted to validate that the technology works.

The project also developed a preliminary personalized feedback system that provides suggestions and encourages participants to utilize other modes than the drive-alone option. These

suggestions were sent to participants after the trip data has been transferred from the TRAC-IT unit into a database developed to pattern travel behavior and generate appropriate feedback to participants.

The final report for this project is available at *http://www.nctr.usf.edu/html/576-16.htm.*

Transit Use Viability among Older Drivers Losing Driving Privileges
(Steve Polzin/Oliver Page)

Effective January 1, 2004, Florida Statute 322.18, subsection 5, requires drivers 79 years or older to pass vision tests when renewing their six-year licenses. Such a mandate is part of an "age-based" testing regime that several U.S. states have implemented in recent years with respect to enhancing the safety environment afforded to road users. Implementation of "age-based testing" produces a group of travelers who could provide a resource in understanding travel behavior changes and mode choice after driving cessation. The objective of this study was to provide additional insight into travel behavior changes for persons who lose their driving privileges, particularly their interest in, ability to, and subsequent use of public transit. First, a literature review of developments that have impacted senior travel behavior was presented. Developments such as the changing demographics of seniors, senior socio-economic status, and the process of driving retirement (i.e., driving reduction ultimately resulting in driving cessation) are then discussed. A descriptive overview of senior travel behavior as derived from analyses of publicly available datasets is complemented by findings from focus group discussions on senior travel behavior.

Recommendations originating from this study include: increase the provision of information to seniors regarding their mobility options; continue the adaptation of vehicles to accommodate older travelers; explore additional roles for local transit providers; and monitor trends in driving cessation and senior mobility as part of local public transportation planning functions. Knowledge gaps in our understanding of senior travel needs before and after driving cessation are also presented.

The final report for this project is available at *http://www.nctr.usf.edu/pdf/77601bw.pdf.*

2005 NCTR Student of the Year: Jennifer Flynn

Jennifer Flynn was named as recipient of the NCTR Student of the Year award for 2005. She earned a bachelor's degree in Urban Geography from USF in June 2002 and began a master's program in geography with an emphasis in urban and transportation planning. She was appointed as a graduate research assistant at CUTR and worked on a variety of projects for NCTR, FDOT, and county-funded research. She is skilled in spatial data analysis using Geographic Information Systems (GIS), thematic map design, database development and management, research and promotional writing, and surveying and served as liaison for several outreach and educational initiatives at CUTR. Her research interests include GIS, transit market analysis, women's transportation issues, and the community impacts of planning policy. She recently was hired as a full-time faculty member for the CUTR Transit Program to continue her NCTR research efforts.

Jennifer Flynn

Education

Education continues as a core program area of NCTR and includes a variety of activities and initiatives to meet the diverse needs of various students and professionals. Student involvement in project research continues as a priority of CUTR and the NCTR program. During the 2005-2006 program year of NCTR, graduate and undergraduate students were involved in ongoing public transportation research projects and were supported by funding from NCTR. 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, educated individuals, many of whom have gone on to work on public transportation planning, management, and analysis, while others will carry out their career activities with a far richer understanding and appreciation of public transportation.

In the 2005-2006 academic year, the academic program at USF continues to evolve. The shift of focus to advanced degrees continues with more PhD students and fewer master's degree students. There is an increasing emphasis on the "five-year program," a program designed to let an undergraduate commit to a master's degree while intermixing their undergraduate and graduate courses such that they can complete degree requirements in five years and begin taking master's degree courses earlier in their overall tenure at the University. In addition, the university is exploring a 12-month master's program designed to enable an individual to complete their master studies within a one-year time period. This would appeal to individuals who are eager to complete their studies and willing to spend a year highly focused on taking courses as opposed to working. Job placement has remained very strong. The program continues to be proud of its placement record, with numerous students finding increasingly prestigious employment opportunities.

The following are summaries of specific core areas of the NCTR education program.

Transportation Certificate Program

CUTR's new certificate program, the Transportation Systems Analysis Certificate, is designed to provide an opportunity for a transportation credential for persons who have an engineering or similar technical undergraduate degree and want to enhance their skills and credentials through additional study. The certificate, offered beginning in Fall 2005, requires that the student complete 4 courses of a set of 11 courses that provide a strong transportation background. To date, a number of students enrolled in the program are taking advantage of the fact that they can complete the certificate via distance learning. All of the courses for this certificate are offered via distance learning.

- Traffic Systems Engineering
- Transportation Safety
- Intelligent Transportation
- Transportation Planning and Economics
- Travel Demand Modeling
- Public Transportation
- Transportation Network Analysis

- Pavement Design
- Principles of Engineering Management
- Supply Chain/Logistics
- Project Management

Exploration of Additional Public Transportation Graduate Courses

During 2003, informal discussions began with the Federal Transit Administration and leading academicians in public transportation on the prospect of collaboration on curriculum development. As public transportation is only one of a broad range of modal interests for students of advanced transportation education, and the number of students in any given program is limited, few, if any, programs are able to offer more than a single graduate course in public transportation. Both student interest and faculty time and expertise preclude multiple course offerings. In light of this, a small group of individuals throughout the U.S. have discussed collaboration on curriculum development in public transportation. While funding for such an initiative has not yet been secured, CUTR has reiterated its interest in collaborating and anticipates moving forward with this initiative.

Research Experience for Undergraduates Program (REU)

As an outgrowth of a successful NSF program, USF has implemented a Research Experience for Undergraduates program. This program is intended to expose undergraduates to research experiences earlier in their education to motivate them to remain interested in the respective topic. CUTR continues to participate in this program and graduates of this program have joined CUTR as graduate research assistants.

Developing Interest in the Field of Public Transportation—STEP 2006

For the sixth year, the Summer Transportation Education Program (STEP) was held at CUTR during the summer. STEP is a four-day program designed to provide students with the opportunity to learn more about careers in the field of public transportation through discussions with practicing professionals, hands-on activities, and field trips. The 2006 STEP class consisted of primarily freshmen and sophomore students in high schools from Hillsborough and Pinellas counties. The students were introduced to public transportation career opportunities related to engineering, safety, operations, and planning, as well as many others.

Field trips included Tampa International Airport, the Tampa Port Authority, the Florida Department of Transportation (FDOT) I-4 widening project office, and the Hillsborough Area Regional Transit (HART) streetcar maintenance facility, where they observed technicians and supervisors at work, participated in a transit trip planning session, and traveled by streetcar and bus between the Port Authority and USF. For many of the students, it was their first time using public transportation.

Hands-on activities included an introduction to Geographic Information Systems (GIS) and the use of mapping software to accomplish transportation-related activities. Students also were introduced to transit by means of USF's shuttle service, the Bull Runner. Information sessions included transportation and the environment, bus rapid transit, and bicycle and pedestrian safety.

Other Education Initiatives

Several other initiatives continue to receive attention. The undergraduate course Transportation and Society, designed to introduce undergraduates from various disciplines to transportation, is offered twice annually with very good participation. CUTR is collaborating in a USF initiative to introduce a master's degree in urban planning program. This initiative is receiving strong support, and it is anticipated that such a program will start on or before Fall 2008. This program will be very complementary to the transportation focus at CUTR and provide an additional group of students who would be interested in taking courses in transportation and perhaps being involved as research assistance for transportation studies.

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 by NCTR staff over the last year.

Professional Activities

NCTR staff continue to have significant involvement with partners in the public transportation industry, including serving on 10 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. 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.

Professional Involvement of Key NCTR Personnel

Volinski
Transit Ambassador Emeritus, TCRP
Member, Research & Technology Committee, APTA
Member, Human Resources Committee, APTA
Member, Transit Management and Performance Committee, TRB
Member, Research Proposal Screening Committee, TCRP
President, Leadership APTA Alumni Association
Member, Florida Public Transportation Association Board of Directors
Member, TCRP Panel H-33A: State and National Transit Investment Analysis

Hinebaugh
Member, Bus Transit Systems, TRB
Member, Panel A-23: Cost Effectiveness of Selected BRT Components
Member, Public Transportation Marketing & Fare Policy, TRB
Chair, BRT Subcommittee, TRB
Member, Panel D-13: Guide for Implementing Bus on Shoulder Systems, TCRP
Member, BRT Task Force, APTA

Cain
Road Pricing Subcommittee, TRB
Managed Lanes Joint Subcommittee, TRB

Cevallos
Contributor, dBase Developers Bulletin
Member, Panel H-28: Uses of Archived AVL/APC Data for Transit, TCR
Member, Panel A-29: Advanced Scheduling Manual/Contemporary Issues in Transit, TCRP

Darido
Member, Public Transportation Forum, TCRP
Member, Transportation in Developing Countries Committee, ITS America

Goodwill
Co-Chair, FPTA Annual Conference
Co-Coordinator, Florida Transit Planning Network

Gregg
Co-Coordinator, Florida Transit Planning Network

Hendricks
Member, Telework Council, ACT
Associate Editor, TDM Review, ACT

Mierzejewski
Member, Panel 8-44: Incorporating Safety into Long-Range Planning, NCHRP
National Board of Directors, ITE
Board of Directors, Florida District 10, ITE
Member, Committee on Transportation Programming/Planning/System Evaluation, ITE
Member, Panel 8-59: Transportation Cost Implications of New Development

Perk
Member, Social/Economics Factors A1C06, TRB
Member, Intermodal Passenger Facilities A1E03, TRB
Chair, Intermodal Operations Tech Forum, APTA

Polzin
Editorial Board, Journal of Public Transportation
Member, Policy & Planning, APTA
Member, Public Transportation Planning & Development, TRB
Education Committee, SE Transportation Center
Member, Conference on Census Data for Transportation Planning, TRB
Project 20-24(34): Commuting in American III, NCHRP

Reep
Associate Staff, Federal Transportation Safety Institute
Chair, Florida Operations Network
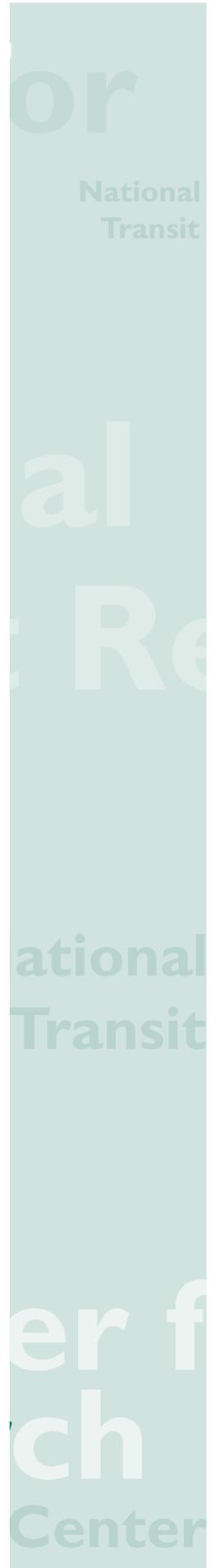
Sapper

Member, Committee on Public Transportation Safety & Security Task Force, AASHTO

Staes

Member, National Peer Review Panel, Instructor's Course on Paratransit Operations, AASHTO

Winters

Information Director, TDM Institute, ACT

Executive Committee, Transportation Planning Council, ITE

Chair, T3 Reauthorization Legislative Subcommittee, ACT

Transportation Planning Council Web Liaison, ITE

Member, TDM Committee, TRB

Publications and Presentations

During FY 2005, NCTR researchers were active in publishing and presenting at state and national conferences and meetings, as follows:

Publications

Cain

- Achieving Majority Support for Urban Road Pricing, *TRR 1932*
- Teenage Mobility in the US: Issues and Opportunities for Promoting Transit, *TRB*
- Achieving Majority Support for Urban Road Pricing, *TRR 1932*

Cevallos

- Minimizing Transfer Times in a Public Transit Network, *TRB*

Chu

- Reality-Based Approach to Stated Preference Surveys, *TRR 1917*

Concas/Winters/Wambalaba

- Fare Pricing, Elasticity, Subsidies & Demand for Vanpool Services, *TRR 1924*

Georggi/Winters/Barbeau

- Automating the Collection/Processing of Household Travel Patterns, *ACT Proceedings*

Polzin

- Extreme Makeover: Transportation Funding and Desperate Transportation Planners, *Urban Transportation Monitor*

Polzin/Chu

- Assessing Intrastate Equity of Transportation Funding, *TRB*
- A Closer Look at Public Transportation Mode Share Trends, *Journal of Transportation & Statistics*

Polzin/Pendyala/Toole

- An Exploration of the Growth in Travel Time Expenditures, *TRR 1917*

Volinski

- Developing Bus Transfer Centers as Community Assets, *TRB*
- Success Factors of Local Circulator Systems, *APTA Bus and Paratransit Conference Proceedings*

Winters/Perez/Joshi/Perone

- Worksite Trip Reduction Model & Manual, *TRR 1924*

Presentations

Barbeau

- Digital Travel Assistant, *Conference of Association of Travel Instructors*
- Digital Travel Assistant, *NCTR Netcast*
- Using GPS-Enabled Cell Phones to Improve Multimodal Planning, *GIS in Transit*
- Location Based Services & GIS Project, *USF GIS Day*
- AD: A Potential Technology Application to Assist Transit Riders, *FDOT/FCTD*
- Enhancing Transportation Safety & Security via Wi-Via, *USF EXPO*

Cain

- The Approach of the US to BRT and Transit Infrastructure, *Primeria Feria International, Bogota*
- Applicability of Bogota's BRT System to the US, *FTA*
- Teenage Mobility in the US: Issues and Opportunities for Promoting Transit, *TRB*

Cain/Darido

- The Applicability of Bogota's BRT System to the US, *TRB*

Cevallos

- Bus Stop Inventories/ATSIM, *FTPN Web Conference*
- Minimizing Transfer Times in a Public Transit Network, *TRB*

Darido

- Perspectives on BRT Developments in China, *FTA*
- Characteristics of Bus Rapid Transit, *Florida Section ITE*

Georggi/Winters/Barbeau

- Automating the Collection/Processing of Household Travel Patterns, *ACT Conference*

Goodwill

- Special Events from Transit's Perspective, *Florida Public Transportation Association (FPTA)*
- Transit Oriented Development, *Florida Transit Planning Network Web Conference*
- Florida's 2004/2006 Hurricane Season, *2006 Smartways Wisconsin Annual Meeting*

Goodwill/Reep

- Emergency Planning and Hurricane Preparedness for Transit, *FCTD Annual Conference*
- Overview of Wheelchair Securement Issues, *FCTD Annual Conference*
- Florida Experience and Preparations/Hurricanes, *TRB*

Gregg

- Whole Brain Thinking in a Market Driven Transit Agency, FPTA

Hendricks

- Transit Oriented Development, Florida Transit Planning Network
- Incorporating TDM into the Land Development Process, Florida Commuter Choice Summit

Hinebaugh

- Moderator, Tampa Bay BRT Conference
- What is BRT?, ASCE BRT Workshop

Polzin

- Observations on Transit Costs and Funding, *APTA Annual Meeting*
- Synthesis of Findings, *GIS in Transit*
- Dealing with Gridlock and Growth in South Florida, *Society of Professional Journalists*
- New Insights: Light Rail Right of Way Issues, *TRB*
- Observations on Potential Transportation Applications of LEHD, *US Census Employment Dynamics Conference*
- The Case for More Moderate Growth in VMT, *FSU Doctoral Colloquium*
- Dealing with Gridlock and Growth in Florida, *Society of Professional Journalists*

Polzin/Chu

- Assessing Intrastate Equity of Transportation Funding, *TRB*

Polzin/Page

- Transit Use Opportunities/Issues for Older Drivers Losing Driving Privileges, *AARP Senior Mobility Forum*

Sapper

- Transit Safety & Security Programs and Training, *FPTA*

Staes

- Rural Mobility & Marketing Assessment Initiative, *FCTD Annual Conference*
- Transit Safety, Security & Technical Assistance Programs, *FPTA*

Thole

- Forecasting Paratransit Demand, *Assn of MPOs Annual Conf*

Volinski

- Lessons Learned in Transit Efficiencies, *Georgia Public Transit Assn. Annual Meeting and APTA Annual Meeting*
- Developing Bus Transfer Facilities as Community Assets, *Georgia Public Transit Assn. Annual Meeting*

- Return on Investment of Bikes on Bus Program, Georgia Public Transit Assn. *Annual Meeting*
- Identifying Characteristics of Successful Local Circulator Systems, *TRB*
- Developing Bus Transfer Centers as Community Assets, *TRB*
- Managing Transportation in a Crisis: Lessons Learned from Hurricanes, *TRB*
- Success Factors of Local Circulators in SE Florida, *APTA Bus & Paratransit Conference*
- Lessons Learned in Transit Efficiencies, *APTA Webinar*
- Success Factors of Local Circulators in SE Florida, *Broward County Workshop*

Winters

- Creative Resources for the TDM Professional, *ACT Conference*
- Tools for Every TDM Professional, *ACT Conference*
- Understanding Current Commuter Behavior, *Florida Commuter Choice Summit*
- Maximizing Employee Retention thru Qualified Transportation Fringe Benefits, *Hospitality/Tourism Industry Forum*
- TDM R&D: Location Aware Technologies, *FSITE*

Training

During FY 2006, NCTR researchers were active in either providing or arranging for the following training sessions:

Commuter Choice

- MPO Long Range Planning Process
- Long Range TDM Planning
- Incorporating TDM into the Land Development Process
- Introduction to BRT
- Crash Course in Measurable Marketing
- Trends Affecting Transportation Systems & Policies
- Quantifying the Business Benefits of TDM and Transit
- Introduction to Basic Marketing Strategy and Campaigns
- Creative Thinking for Transportation Professionals
- Institutional Arrangements
- Establishing Program Goals and Objectives
- Measuring Results and Performance
- National Transit Institute's Commuter Benefits Program
- Statewide Survey on Bicycle/Pedestrian Facilities
- TDM Advocacy
- Rideshare Options
- Transit Service Options
- Parking Management

- Telework and Compressed Work Weeks
- Commuter Choice Tax Benefits
- Commuter Choice Support Programs/Smart Commute Strategies
- Carsharing Programs
- TDM Program Monitoring/Evaluation
- Government Relations
- Presentations/Public Speaking
- Social Marketing

CUTR
- NTD Transit Database Data Collection & Reporting Seminar

NCTR
- Student Transportation Education Program

Transit Training
- TSI Instructor's Course in Bus Operator Training
- Transit Threat and Vulnerability Assessment
- Fundamentals of Bus Collision Investigation
- NTI Harassment Prevention Workshop
- TSI Transit System Safety
- TSI Intermediate Problems in Bus Collision Investigation
- Increasing Human Effectiveness

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.

Net Conferences: Learn More—Travel Less

In addition to the diverse range of publications, NCTR uses various means and formats for disseminating information and sharing insights. NCTR continues to provide opportunities to collaborate online individually or with large groups of transportation professionals in real time, with only a computer and an Internet connection. This netconferencing approach provides a cost-effective means of bringing together public transportation professionals with peers and other experts from around the country to disseminate research results and share experiences.

NCTR's use of Microsoft's Live Meeting™ enables us to quickly and more effectively communicate with transportation professionals while reducing travel time and expenses. Netconferences are held in real-time but are also available for on-demand viewing after the live presentation. No special equipment is necessary. "Attendees" view the presentation via the Internet while listening via the telephone.

In 2006-2007, NCTR sponsored the following four netconferences in partnership with the Association for Commuter Transportation. To leverage NCTR's resources, ACT chapters were enlisted to host these netconferences in their cities and invite members and non-members alike. Based on the topic, from 15 to 25 locations participated in the netconference live and attracted up to 150 "conference attendees" each.

Virtual Discussion: "Gas Prices and TDM Responses—Opportunity or Chaos?"

Rapidly rising gas prices have substantially increased demand for various services and programs offered by transportation demand management (TDM) agencies all across the country. Increased strains on resources--financial, human, and capital-- come from increased demands. This "virtual discussion" was quickly organized to allow TDM programs to share how they are adjusting to these increases in demand. More than 20 TDM programs were represented. Prior to the meeting, many of these agencies provided several slides documenting recent changes in demand in their markets, specifically, changes in demand for vanpooling, ridematching requests, employer outreach, and online requests. In addition, 13 polling questions were posed to the group to get a sense of the demand and their actions to accommodate the demand. Three speakers in San Francisco, Washington, DC and Atlanta were featured to kick off the discussion after quickly reviewing changes in their communities. They were followed by a group discussion and interaction among colleagues from major metropolitan rideshare agencies and state departments of transportation. Finally, several ideas were presented related to what ACT and others could do to cope with these pressures. This 87-minute session, moderated by Donna Smallwood of MassRIDES/URS Corporation, featured presentations from Michael Halicki, Communications Director, Clean Air Campaign Atlanta; Tad Widby, Project Manager - 511 Regional Rideshare Program San Francisco; and Nick Ramfos, Chief, Alternative Commute Programs, Commuter Connections, Metropolitan Washington, DC Council of Governments.
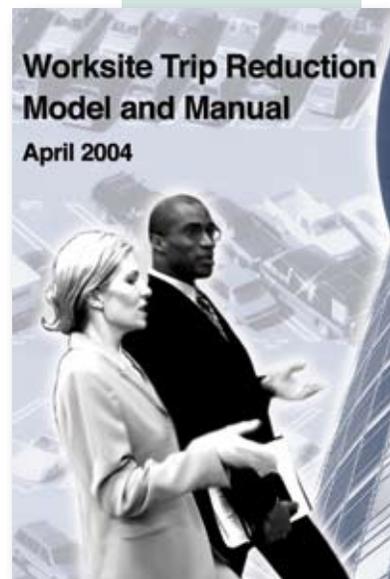
Netconference: "Show Me the Money—How New Federal Legislation Is Changing the TDM Landscape"

Within the new transportation bill (SAFETEA-LU) are opportunities (and threats) to TDM programs such as changes to CMAQ and expanded provisions related to high occupancy toll lanes. In addition, the TDM industry could be impacted by other legislative actions such as the new energy bill and pending amendments that could increase attention on conservation and the higher cost of gasoline. ACT President Jon Martz and ACT's government relations representative Jason Pavluchuk provided an overview of how these pieces of legislation could change the TDM industry.

BUILDING TRANSIT ORIENTED DEVELOPMENT IN ESTABLISHED COMMUNITIES

2002
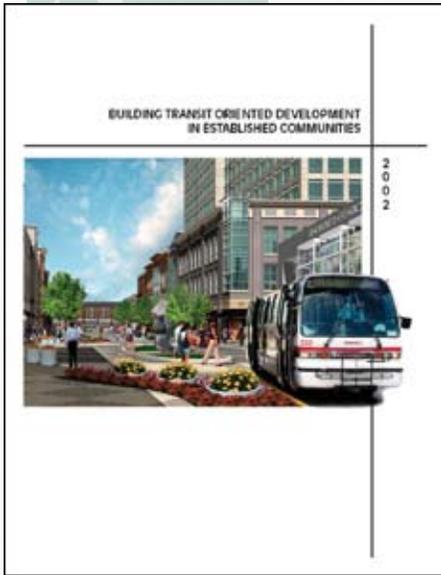
Netconference: "Making TDM Boom with Boomers"

Baby Boomers, America's largest generation, have left a huge wake in our culture as they have passed through each stage of life. At 78 million strong, this group is 30-40% larger than any other generation before or since and, consequently, are agents of change. This group is about to transform America's transportation infrastructure as we know it. During the next 20 years, aging Boomers will help push the ranks of Americans ages 65+ from 35 million to more than 70 million. The realities of aging, coupled with our automobile-dependent transportation system, will challenge this group's sense of mobility, and retirees of the future will demand solutions. Getting aging Baby Boomers to better understand and appreciate travel choices is a challenge. Speakers in this netconference shared seven sensible steps to this end. John W. Martin, President & CEO of the Southeastern Institute of Research, a marketing research firm specializing in TDM-related research, and Matt Thornhill of The Boomer Project shared their firm's proprietary research and offered related tips on how to make TDM programs appeal to "Boomer-sensibilities."

Netconference: "The 411 on 511: How This Advanced Traveler Information System Complements and Competes with TDM"

What is 511 and how does it relate to TDM? An overview of this free advanced traveler information system throughout the country was provided by Pete Costello, chair of the 511 Deployment Coalition Working Group. He discussed how telephone (dial 511) and web-based systems are being designed. Lynn Osborn, Program Manager for 511 Contra Costa and chair of ACT's 511 Council, provided a case study on deployment of 511 in the San Francisco Bay area and discussed what the introduction of 511 means to TDM programs in her region. She also provided tips on how to get involved with planning local 511 systems to include more TDM information in those systems. Both speakers addressed the challenges and opportunities that TDM agencies may face related to 511.

On-Demand Streaming Presentations

On-demand streaming presentations continue to provide another means for facilitating the sharing of research results. More final reports are being turned into short, streaming presentations that can be viewed on demand by the public transportation professional and others. This provides a quick and convenient means to hear a researcher discuss a project without the cost to travel to a conference or the time to read the full report.

The current list of streaming presentation includes a range of topics related to all forms of public transportation.

- Bicycle Parking Innovations and Security View
- Commuter Choice Program Case Study Development and Analysis
- Designing Bus Transfer Facilities for Maximum Transit Agency and Community Benefit
- Developing Title VI Profile Maps for Community Impact Assessment
- Evaluation of Shared Use Park & Ride Impact on Properties

- Expanding Commuter Choice Tax Benefits
- Fare Pricing Elasticity, Subsidies, and the Demand for Vanpool Services
- Future Technicians
- Land Developer Participation in Providing for Bus Transit Facilities and Operations
- Synthesis of Securement Device Options and Strategies
- Telecommunications and Its Future Role in the Public Transportation Arena
- Universities and TDM: Carpool Programs
- USF Cart Safety Training Program

Website

In addition to the netconferences and on-demand streaming presentations, NCTR provides links to 86 completed research reports in HTML and pdf formats.

As the table below shows, most NCTR websites are found at or near the top of major search engines when using key search terms reflecting NCTR priorities.\

| Search Term	Search Engine	Ranking
"Transit Research"	Google	1st
	Yahoo	3rd
	Ask	1st
"Bus Rapid Transit"	Google	8th
	Yahoo	16th
	Ask	6th
"Transportation Demand Management"	Google	4th
	Yahoo	27th
	Ask	5th

Basic web statistics were designed so systems administrators could determine how efficient the system was in processing requests. The statistics were not intended to count every user. However, such web statistical reports enable NCTR to track basic trends.

Discussion Forums and Listservs

NCTR continues to see increases in the number of subscribers across the board from its public transportation-related listservs. These peer-to-peer discussion forums have attracted more than 2,100 subscribers. The listservs provide quick access to information and facilitate peer-to-peer assistance from across the country. The e-newsletter listservs account for more than 1,200 additional subscribers. These e-newsletters provide information on what is new at NCTR and include 350 electronic subscriptions to the *Journal of Public Transportation*.

Member count for all lists
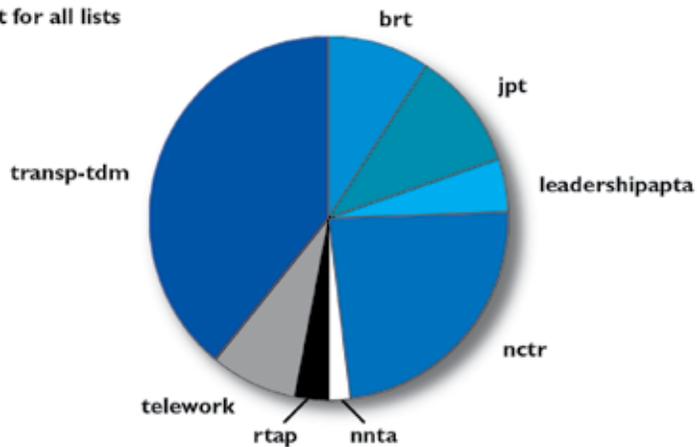
KEY

brt = discussion forum for bus rapid transit
jpt = subscribers who received electronic version of NCTR's *Journal of Public Transportation*
telework = discussion forum for telework
transp-tdm = discussion forum for transportation demand management
nctr = e-newsletter for the National Center for Transit Research
nnta = e-newsletter for New North Transportation Alliance
leadershipapta = discussion forum for "Leadership APTA" graduates
rtap = discussion forum for rural transit assistance program

Beginning in FY06, all NCTR abstracts, announcements and listserv postings 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 up email inboxes.

Also, in the past year, NCTR has initiated a blog to foster discussion of transportation issues, TDM Talk (*www.tdmtalk.blogspot.com/*), to complement the listserv it runs for TDM professionals.

Help Desk for the National TDM and Telework Clearinghouse

In 2004, NCTR unveiled a customer relationship management software solution to provide the enhanced communications and continual feedback loops that are central to understanding and addressing the needs of the transportation community. The Help Desk's role is to provide more intelligent self-service options. With 523 questions and answers, including 100 case studies, this approach provides a means to reduce the total number of basic inquiries or repeat requests that require personal attention by the NCTR staff. The Help Desk also tracks and reports to the staff which topics are receiving the most questions and responses. Such monitoring can help NCTR staff identify research needs, possible subjects or topics for net conferences or training workshops based on the level of interest or need.

Year 7 Research Program

NCTR recently completed the process to solicit and select research ideas for the FY 2006 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, and national listservs. From the submission of more than 100 different research ideas, the NCTR Advisory Committee provided assistance in selecting 6 core program and 11 research projects for funding in FY 2006.

Conclusion

At the completion of its seventh 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 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 continues to be excited about the possibilities of establishing an interdisciplinary transportation degree program that will attract even more students to the profession.

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

Financial Summary

Figure 1 presents the funding sources for the 6th year (combined 5th and 6th years in one grant) of the NCTR program. Figure 2 shows the split of expenditures for the fiscal year based on the key program areas of the NCTR Program. These expenditures are for the "core program" and research projects only and do not include administrative expenses of the NCTR Program. Expenditures are shown in three areas—education, research and technology transfer.
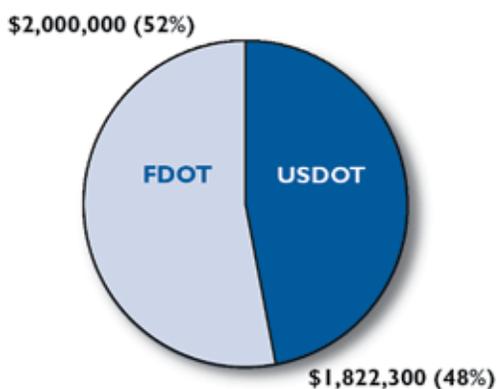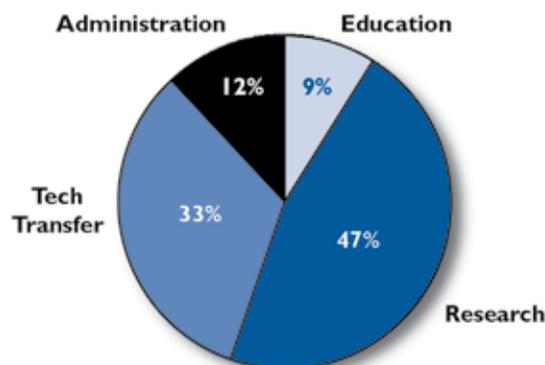

FIGURE 1:
NCTR Funding Sources

FIGURE 2:
NCTR Expenditures

Center for Urban Transportation Research