Message from the Director

The National Center for Transit Research (NCTR) is one of the very few University Transportation Centers in the nation that focuses exclusively on public transportation issues. With a research faculty that includes more than a dozen members with prior experience in public transportation agencies, NCTR brings a practical emphasis to all of the research performed that is appreciated by operating agencies that provide mobility alternatives. This experience also allows research faculty to provide more complete mentoring for the many students that assist in research projects. Since its inception in 1999, NCTR has completed 50 research projects that cover a wide range of public transportation topics of interest to transit agencies, commuter assistance programs, MPOs, and departments of transportation.

The fundamental mission of sharing the information gained through our research is given very high priority. All of the reports produced are available on our website (www.nctr.usf.edu), which is continually updated and improved. In the course of an average year, more than 30 presentations are made at state and national conferences by NCTR researchers, who also share their research results as they participate as leaders of various committees in associations such as the Transportation Research Board, the Transit Cooperative Research Program (TCRP), the American Public Transportation Association (APTA), and the Association for Commuter Transportation (ACT). Active listservs maintained by NCTR researchers now connect almost 2,000 professionals from around the country and the world. Members of the listservs are continuously astounded by, and thankful for, the information they obtain from each other.

In this past year, the Florida Department of Transportation, which provides the match for NCTR’s federal UTC grant, has come to respect NCTR as its primary research program in the area of public transportation. Other organizations such as APTA, TCRP, and ACT have been prominent in identifying projects that NCTR is now undertaking that will ultimately benefit agencies throughout the nation.

Housed in the Center for Urban Transportation Research in the College of Engineering at the University of South Florida, NCTR has the opportunity to provide practical research experience for students who wish to supplement their coursework with real world challenges. Students from the College of Engineering and many other disciplines at the university have been inspired to join the ranks of transportation professionals at least in part through their experience gained in working on NCTR projects. Descriptions of the various projects completed this past year are provided in this report. We hope you enjoy what you discover through this report, and that you will include our website among your “favorites.” Please consider joining one of our listservs. We look forward to adding to transportation’s body of knowledge, sharing all that we learn, and developing new professionals to advance the state of the art.

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. 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, economic growth, and community 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, 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.

- Chair: Gary L. Brosch
- Director: Joel Volinski
- Administrative Director: Dennis Hinebaugh
- Communications Director: Patricia Ball
- TDM Program Director: Philip Winters
- Education Director: Steven Polzin
- Ethnography & Transport Studies Director: Beverly Ward
- Transit Training Program Director: Lisa Staes
- NCTR Program Assistant: Lisa Maitland

Being housed at CUTR, NCTR has the enormous advantage of being part of a large and extremely active transportation research center. The faculty and students at the Center represent the largest concentration of public transportation researchers in a single university in the country. 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, utilized, or otherwise applied.
Program Overview

Funding
NCTR has now completed its fifth 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 16 years. Federal funds for the program are matched with a 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 5 percent indirect rate, compared to the federal indirect rate of 45 percent, resulting in an almost 250 percent 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 this match 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 15 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:

- Gary L. Brosch  
  Chair, NCTR
- Dr. Lewis Clopton  
  Director of Research Management  
  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  
  General Manager  
  Miami Valley Regional Transit Authority
- Ysela Llort  
  State Transportation Planner  
  Florida Department of Transportation
- Richard Long  
  Director, Office of Research  
  Florida Department of Transportation
- Cal Marsella  
  General Manager  
  Denver Regional Transit District
- Perry Maull  
  Past President  
  Florida Public Transportation Assoc.  
  Director, PalmTran
- Bill McCloud  
  Senior Vice President & C.O.O.  
  ATC
- 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
Fifth-Year Accomplishments

Research

The fifth year of the NCTR program has supported 24 projects approved by the NCTR Advisory Committee. These projects consist of 6 core programs that will be conducted throughout the life of NCTR and 18 newly-selected research projects that explore methods to accomplish the goals of the Center in enhancing the performance of public transportation.

Core program areas include continued development and maintenance of:

- the National Transportation Demand Management (TDM) and Telework Clearinghouse
- the National Bus Rapid Transit Institute (NBRTI)
- STEP (Student Transportation Education Program), an annual program for developing high school student interest in transportation careers
- ongoing production of teleconferences and webcasting
- graduate student professional development
- the Journal of Public Transportation

In FY 2004, 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; over 100 research ideas were received, and 18 were selected for funding.

Project Status

New, ongoing, and completed research projects and their principal investigators for FY 2004 are listed below.

Summary of Year 5 (FY2004) Newly Designated NCTR Projects

- Best Practices in Transit Communications Between Transit Management and Rank and File Employees (Joel Volinski, CUTR, 575-09)
- Florida Journey to Work Fact Book and Web-Site (Martin Catalá, CUTR, 575-16)
- Public Transportation Synthesis Series (Part 3) (Joel Volinski, CUTR, 576-01)
- Public Transit in America: Evidence from the 2001 National Household Travel Survey, Phase II, Analysis of Density and Geocoded Data (Steve Polzin, CUTR, 576-02)
- Web-Based Bus Accident Reporting, Tracking and Analysis System (Debbie Sapper, CUTR, 576-03)
- A Guidebook for Start-up Transit Agencies (Jay Goodwill, CUTR, 576-04)
- A Return on Investment Analysis of Bikes-on-Bus Program (Chris Hagelin, CUTR, 576-05)
- Innovative Approaches to Using Passenger Miles Data for Transit (Xuehao Chu, CUTR, 576-06)
• Standardized On-Board Surveys and Archived On-Board Survey Data (Xuehao Chu, CUTR, 576-07)
• Strategies for an Inter-Urban Circulatory System (Victoria Perk, CUTR, 576-08)
• Special Event Transportation Service Planning & Operations Strategies for Transit (Joel Volinski, CUTR, 576-09)
• Impacts of Transit Oriented Development on Public Transportation Ridership—Phase One (Sara Hendricks, CUTR, 576-10)
• Incorporating TDM into the Land Development Process (Sara Hendricks, CUTR, 576-11)
• Case Studies in Environmental Justice and Public Transit Title VI Reporting (Beverly Ward, CUTR, 576-12)
• Update Methodology for ADA Demand Estimates: Lessons Learned (Cheryl Thole, CUTR, 576-13)
• Teenage Attitudes and Perceptions Regarding Transit Use (Jennifer Perone, CUTR, 576-14)
• Enhancing the Rider Experience: The Impact of Real-Time Information on Transit Ridership (Phil Winters, CUTR, 576-15)
• Traveling Smart—Increasing Transit Ridership by Automatic Collection (TRAC) of Individual Travel Behavior Data and Personalized Feedback (Phil Winters, CUTR, 576-16)

Summary of Ongoing NCTR Projects

• Safe Operation of Low Speed Vehicles and Golf Carts (Jennifer Hardin, CUTR, 415-14)
• Public Transportation Synthesis Series (Part 2) (Joel Volinski, CUTR, 527-01)
• State Bus Transit Safety Guide (Holly Carapella, CUTR, 527-02)
• Benchmark Rankings for Transit Systems in the United States (Victoria Perk, CUTR, 527-03)
• Impacts of Transfer Fares on Transit Ridership and Revenue (Victoria Perk, CUTR, 527-04)
• Assessing the Hierarchy of Needs in Levels of Service (Jennifer Perone, CUTR, 527-08)
• Public Transit in America: Evidence from the 2001 National Household Travel Survey (Steve Polzin, CUTR, 527-09)
• Analysis of Florida Transit Bus Accidents (Holly Carapella, CUTR, 527-11)
• Design Elements of Effective Transit Information Materials (Chandra Foreman, CUTR, 527-12)
• Developing Bus Transfer Facilities for Maximum Transit Agency and Community Benefit (Joel Volinski, CUTR, 527-13)
## Summary of Completed Projects

- Ridership Trends of New Start Rail Projects *(Steven Polzin, CUTR, 350-11)*
- Bus Rapid Transit—Phase 1, Evaluation of the South Miami-Dade Busway *(Michael Baltes, CUTR, 350-13)*
- Analysis of the FDOT Transit Corridor Program *(Lisa Staes, CUTR, 392-01)*
- FDOT Statewide On-Site Technical Assistance Program *(Lisa Staes, CUTR, 392-02)*
- FDOT Statewide Transit Training Program *(Lisa Staes, CUTR, 392-03)*
- Inventory and Analysis of Advanced Public Transportation Systems in Florida *(Joel Rey, CUTR, 392-04)*
- Analysis of Florida Transit Bus Accidents *(Joel Rey, CUTR, 392-05)*
- FSUTMS Mode Choice Modeling—Factors Affecting Transit Use and Access *(Fang Zhao, FIU, 392-07, 416-03)*
- Enhancement of the Public Transportation Promotional Materials Clearinghouse *(William Mustard, FSU, 392-08, 416-10)*
- Evaluation of the Economic Viability of Narrow-Gauge Local Rail Systems *(Laurel Land, CUTR, 392-09)*
- Transit Customer Satisfaction Index *(Francis Cleland, CUTR, 392-10)*
- Assessment of Operational Barriers and Impediments to Transit Use *(Jennifer Hardin, CUTR, 392-11)*
- Cops, Cameras, and Enclosures: A Synthesis of the Effectiveness of Methods to provide Enhanced Security for Bus Operators and Passengers *(Darin Allan and Joel Volinski, CUTR, 392-12)*
- State Park-n-Ride Lot Program Manual *(Laurel Land, CUTR, 392-13)*
- Pedestrian Mid-Block Crossing Difficulty *(Xuehao Chu, CUTR, 392-14, 416-02)*
- Bus Rapid Transit Technology—A Case Study of the Lynx Lymmo Project in Downtown Orlando, Florida *(Michael Baltes, CUTR, 392-15)*
- Neighborhood Intermodal Transfer Facilities *(Laurel Land, CUTR, 392-16)*
- Where Are Tomorrow's Maintenance Technicians Coming From? *(Amber Reep, CUTR, 415-09)*
- Telecommunication and Its Future Role in the Public Transportation Arena *(Sara Hendricks, CUTR, 416-01)*
- Effectiveness of Bus Signal Priority *(Shireen Chada, CUTR, 416-04)*
- Environmental Justice and Community Impact Assessment for Transit Agencies *(Beverly Ward, CUTR, 416-05)*
- Land Developer Participation in Providing for Bus Transit Facilities/Operations *(Sara Hendricks, CUTR, 416-06)*
- Synthesis of Securement Device Options and Strategies/Accident Tracking (Jennifer Hardin, CUTR, 416-07)
- An Exploration of Triangulation of Methodologies: Quantitative and Qualitative Methodology Fusion in an Investigation of Perceptions of Transit Safety (Jennifer Perone, CUTR, 416-08.1 and 416-08.2)
- Customer Surveying for Public Transit: A Design Manual (Michael Baltes, CUTR, 416-08.3)
- Synthesis of Transit Non-User Surveys (Jennifer Perone, CUTR, 416-08.4)
- Florida Transit Training Program (Lisa Staes, CUTR, 416-09.1)
- Florida Transit Technical Assistance Program (Lisa Staes, CUTR, 416-09.2)
- Quantifying the Business Benefits of TDM (Phil Winters, CUTR, 416-11)
- Public Transit Investment Decisions: Per Capita Decisions, Trends and Impacts (Rob Gregg, CUTR, 416-12)
- National Transit Bus Accident Data (Chris DeAnnuntis, CUTR, 416-13)
- An Investigation of the Structure/Performance Relationships of Public Transit Agencies (Keith Simmonds, FAMU, 416-14)
- Florida Transportation Almanac (Michael Baltes, CUTR, 473-01)
- Evaluation of First-Year Florida MPO Transit Capacity and Quality of Service Reports (Victoria Perk, CUTR, 473-02)
- Ridership Models at the Stop Level (Xuehao Chu, CUTR, 473-04)
- Repair Time Standards for Transit Vehicles (Lisa Staes, CUTR, 473-05)
- Why People Cross Where They Do (Xuehao Chu, CUTR, 473-06)
- Expanding Commuter Choice Tax Benefit Options (Christopher Hagelin, CUTR, 473-08)
- Senior Transportation Alternatives: Why are They Important and What Makes Them Work? (Jennifer Hardin, CUTR, 473-09)
- FDOT Statewide GIS for Transit Technical Assistance Program (Martin Catalá, CUTR, 473-10)
- National Transit Database Automated Data Collection Procedures (Victoria Perk, CUTR, 473-11)
- Assessment of Transit Information Materials and Development of Selection Criteria for Prototype Design Elements (Jennifer Hardin, CUTR, 473-12)
- Public Transportation Syntheses Series (Joel Volinski, CUTR, 473-13)
- Worksite Trip Reduction Model and Manual (Phil Winters, CUTR, 473-14)
- Customized Sampling Plans: A Guide to Alternative Sampling Techniques for National Transit Database Reporting (Xuehao Chu, CUTR, 527-05)
- Commuter Choice Program Case Study Development and Analysis (Sara Hendricks, CUTR, 527-06)
• Model Regulations and Plan Amendments for Multimodal Transportation Districts (Kristine Williams, CUTR, 527-07)
• Evaluation of Shared Use Park & Ride Impact on Properties (Francis Wambalaba, CUTR, 527-10)
• Price Elasticity of Rideshare: Commuter Fringe Benefits for Vanpools (Francis Wambalaba, CUTR, 527-14)

**Summaries of Selected Completed Projects in NCTR’s 5th Year**

**Ridership Trends of New Start Rail Projects**
*Steve Polzin, Oliver Page*

This research surveyed ridership trends of New Start Light Rail Transit (LRT) projects implemented in the last two decades. The study reviewed the process of maturation of these systems in terms of ridership trends, and each system’s ridership and route and service miles were examined. Using the National Transit Database (NTD), performance was evaluated by reviewing ridership changes as LRT systems grow and comparing them with changes in service supply. The review indicated that ridership trends for new start LRT projects matured relatively quickly, with subsequent growth driven by system extensions and increased service levels. The initial rapid maturation is partially attributable to the high levels of attention light rail lines receive when under development and implemented, as well as the inherent physical presence that LRT provides for transit. LRT systems, even the more mature systems, are a modest share of the urban area’s total transit service, with the most successful systems providing approximately 30 percent of total regional transit trips. LRT investments can be very important to a community by stimulating attention and investment in public transit. LRT implementation has helped several communities expand public transit use; however, it has not resulted in dramatic changes in the role that public transit plays in regional mobility in the respective communities. While LRT is playing an important role in expanding opportunities for transit use, LRT system development is a lengthy process with a mixed record in terms of providing substantial growth in transit ridership.

**Handbook of Automated Data Collection Methods for the National Transit Database**
*Victoria Perk*

In recent years, with the increasing sophistication and capabilities of information-processing technologies, there has been a renewed interest on the part of transit systems to tap the rich information potential of the NTD for the purpose of improving transit operations. Because the NTD contains the only standardized collection of performance data for urban transit providers in the nation, it has become an important transit evaluation tool. In many cases, however, there have been concerns about the accuracy of the NTD information, even after final Federal Transit Administration validation. Many of the errors found in the NTD are often related to data collection problems experienced by transit agencies, and many of these agencies have expressed difficulties in collecting some elements of the NTD data. Hence, the agencies need assistance with collecting data from correct sources, easily obtaining NTD
data, determining operational procedure guidelines to collect data more efficiently, and gathering data from their contractors.

In the course of this study, CUTR conducted interviews with Florida transit agencies to understand existing methods of collecting data and current issues/problems and conducted research on available automated methods that have the capability to increase ease of data collection and accuracy. The results of the transit agency interviews and research on available technologies provide a focus for the illustrative examples shown in the final handbook. Interviews with representatives of the transit agencies and review of NTD Detail Review Letters and the 2001 Performance Reporting Investigation findings suggested that the most challenging information for agencies to collect and report were accurate service area population and service area square miles data; correct information from subcontractors; estimated passenger miles; total actual vehicle hours, vehicle revenue hours, actual vehicle miles and actual vehicle revenue miles; and unlinked passenger trips. The handbook also provides examples of automated methods available in collecting data for the above-identified areas and focuses on the capabilities of these tools in collecting the NTD data.

**Commuter Choice Program Case Study Development and Analysis**

*Sara Hendricks*

In the 2001 Association for Commuter Transportation (ACT) End-of-Year Survey, 59 percent of respondents requested that ACT “provide information on TDM-oriented statistics and case studies” as a means of improving the value of membership. This project presents the results of a study in which the case study method, adapted from the social sciences, was used to sort out the internal and external conditions that might affect the success of a work site trip reduction program. The study found evidence that management support and an effective employee transportation coordinator (ETC) are not necessary for a successful work site trip reduction program if the work site is located in an area with access to high quality public transportation and if it employs lower-income staff who must choose transportation cost savings over time savings and convenience. They are necessary for a successful work site trip reduction program if the work site is not located in an area with access to high quality public transportation.

The report contains conclusions derived from research that solicited the participation of 13 work sites in the Puget Sound region of Washington State that participate in trip reduction activities per state requirements. Work site representatives completed a battery of feedback instruments that were carefully selected to measure work style attributes and elements of interpersonal relating. Participants also provided written samples of trip reduction program information and agreed to be interviewed. The conclusions suggest the relative importance of the ETC in relation to other factors that may influence the outcome of a work site trip reduction program. The conclusions also suggest attributes of the ETC that appear to be associated with higher performing trip reduction programs. The report also contains a discussion of lessons learned in dealing with the challenge of low study participation rates and recommendations for action by employers interested in improving trip reduction programs and suggestions for ETCs who are uncomfortable with their duties. It also suggested areas that TDM professionals should focus their marketing efforts toward organizations that may be more receptive to the message and benefits of work site transportation demand management strategies.
Model Regulations and Plan Amendments for Multimodal Transportation Districts

Kristine Williams

In 1999, the Florida Legislature enabled local governments to establish Multimodal Transportation Districts (MMTD) in their comprehensive plan as a means of promoting a high quality multimodal environment within selected urban areas. The Florida Department of Transportation and its partners have engaged in several projects to support a more multimodal approach to transportation and development planning. These efforts have included development of multimodal level of service standards, as well as procedures for determining multimodal level of service and concurrency. This project builds on that work by providing model comprehensive plan amendments and land development regulations to assist local governments in implementing multimodal transportation districts, where priority is placed on walking, bicycling and transit use through a coordinated package of land use and transportation strategies.

The project report, “Model Regulations and Plan Amendments for Multimodal Transportation Districts,” provides results from a national review of multimodal policies, ordinances, and practices at the local level and a synthesis of best practices. The document includes an overview of the purpose and statutory requirements for multimodal transportation districts in Florida and continues with model comprehensive plan amendments and land development regulations developed to assist local governments in implementing MMTDs to promote multimodal transportation systems and development patterns while advancing access management objectives. The model plan amendments include a plan objective and 20 supporting policies. The objective is to “establish multimodal transportation districts (MMTD) within the community where secondary priority is placed on vehicle mobility and primary priority is placed on providing a safe, comfortable and attractive environment for pedestrians and bicyclists with convenient access to transit, thereby encouraging the use of multiple modes of transportation and leading to a reduction in automobile use and vehicle miles traveled.” The supporting policies establish designation criteria and procedures, then cover various factors within the district such as land use, street design and connectivity, parking, transit, bicycles and pedestrians.

Bus Rapid Transit

Dennis Hinebaugh

One area of research selected as a core program very early in the development of NCTR was Bus Rapid Transit (BRT). BRT uses the advancements in vehicle technology, simulation systems, traffic engineering, and intelligent transportation systems to create an enhanced bus service with faster operating speeds resulting in improvements to local mobility, economic growth, and environmental quality. Research being conducted by NCTR staff in the area of BRT has created a knowledge base such that they are serving as technical assistants to other BRT interests throughout the country by means of making presentations at conferences and serving as members of BRT technical committees in cities advancing the service.
In January 2001, through the efforts of the work developed through NCTR, the National BRT Institute was created at CUTR with the charge of creating a national program for training, technical assistance, research, innovation, and evaluation of existing and proposed BRT projects. NCTR Administrator and Director of the National Bus Rapid Transit Institute Dennis Hinebaugh serves as Chair of the TRB Bus Rapid Transit Subcommittee, which developed the 2004 TRB National BRT Conference in conjunction with the APTA Bus and Paratransit Conference attracting more than 350 attendees and 25 presentations. The PowerPoint presentations from the conference are available for viewing on the NBRTI website at www.NBRTI.org.

Recent activities of the BRT Institute include:

- Coordinating BRT activities among APTA, FTA, and TRB
- Assisting in the development of the FTA document entitled “Characteristics of BRT”
- Assisting ITE and ASCE in developing and holding four one-day BRT workshops throughout the U.S.
- Developing a BRT Peer-2-Peer Technical Assistance Program
- Performing an evaluation of the Oakland (California) BRT service
- Conducting TCRP Project D-11, which will analyze grade crossing measures along busways
- Leading a tour of the Ottawa BRT system
- Serving as a member of TCRP Panel “Cost Effectiveness of Selected Bus Rapid Transit Components”
- Presenting on BRT at TRANSACTION 2004, the 2004 TRB Annual Conference, the BRT Conference on Vehicle Guidance, and APTA’s Intermodal Operation Planning Workshop
- Conducting communications activities such as publishing BRT Quarterly and maintaining the NBRTI website

Education

Education is a core program area of NCTR and, in light of the growing appreciation of the importance of professional capacity building, the educational component of NCTR is continuing to receive attention. Student involvement in project research always has been a high priority of CUTR and remains so in the NCTR program. During the fifth 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 guidance, NCTR helps develop well-informed, educated individuals, some of whom will serve as future ambassadors in the public transportation industry while others will carry out their career activities with a far richer understanding and appreciation of public transportation.

In the 2003-2004 academic year, graduate program productivity jumped dramatically, with 17 transportation graduates at the master’s and PhD levels. Graduate student support pack-
ages have been reevaluated to remain competitive, and recruiting has been stepped up. Job placement has remained very strong in spite of a slow economy and uncertainty on reauthorization of federal transportation legislation. The program is very proud of its placement record, with numerous students finding increasingly prestigious employment opportunities, several graduates now holding academic teaching positions, and other master’s graduates pursuing PhDs at prestigious universities.

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

**Enhanced Degree Offerings**
NCTR has supported initiatives to explore additional transportation degree offerings at USF. This has included a specific program to pursue an additional master’s degree program as well as initiatives to enhance course offerings and explore additional teaching strategies. As reported in prior years, a comprehensive assessment of offering an interdisciplinary degree was carried out, and NCTR and USF continue to explore that prospect. Changes in university policy structure and chronic budget shortfalls have precluded implementation to date. However, the anticipation of continuing budget challenges has resulted in strategy changes to enable continued progress.

**Transportation Certificate Program**
More recently, attention has turned to offering a graduate transportation certificate as an additional transportation credential. The certificate offering, currently under review by USF administration, is targeted to encouraging working professionals to continue their formal transportation education by pursuing a five-course certificate. This will allow another option to enhance the knowledge and credentials of individuals who do not desire or are not able to enroll in a graduate program. A unique feature of the certificate program is the offering of a full menu of classes that meet the certificate eligibility via USF’s internet-based distance learning program, allowing participants to take the courses without attending classes on campus. This certificate would be in addition to the CUTR-coordinated Graduate Interdisciplinary Transportation Certificate.

**Graduate Interdisciplinary Transportation Certificate**
A graduate certificate is offered and administered by CUTR/NCTR in cooperation with the USF departments of Civil & Environmental Engineering, Economics, and Public Administration. Eleven students currently are enrolled. Eighteen semester hours are required, and each student is required to take a set of three common courses, one from each program. The remaining hours may be met by selecting one course of interest from each program for a total of six courses. This provides a firm grounding in transportation, meets the degree requirements within the respective departments, and provides students with additional choices to meet their needs and interests. Participants are exposed to multidisciplinary perspectives on transportation and develop a broad and rich appreciation for transportation policy. The program is evaluated on an ongoing basis with the intent of keeping the certificate responsive to market demands of students and the needs of industry. This includes informal arrangements with other departments such as Environmental Science & Policy and Geography, where certificates have been combined with the Interdisciplinary Transportation Certificate to equal a master’s degree. Public transportation is the core of the required material and continues to be an area of strong interest for students in several departments and colleges.
Developing Interest in the Field of Public Transportation—STEP 2004

For the third year, the Summer Transportation Education Program (STEP) was held at CUTR. STEP is a three-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 2004 STEP class consisted of primarily freshmen and sophomores students in high school from Hillsborough County. The students were introduced to public transportation career opportunities related to engineering, safety, operations, and planning, as well as many others. They visited the Tampa International Airport, the Tampa Port Authority, and Hillsborough Area Regional Transit (HART). The program also placed additional emphasis on hands-on activities. For example, the students were introduced to Geographic Information Systems (GIS) and were able to use the mapping software to accomplish transportation-related activities. The students also were able to visit the HART streetcar maintenance facility to observe the technicians and supervisors at work, participate in a transit trip planning session, and travel by streetcar and bus between the Port Authority and USF. For many of the students, it was their first time using public transportation. Students were also introduced to transit on a university campus, by completing an activity about USF’s shuttle service, the Bull Runner, and then riding on the shuttle as well.

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. Personnel changes at FTA have broken the chain of interest at this time, but the situation will continue to be monitored, and efforts will be reinitiated if opportunities arise.

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.

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 good participation. In January 2005, a new academic transportation faculty member, whose research specialty is network modeling and analytic methods, will join the USF Civil & Environmental Engineering Department. With the transitioning of the College of Engineering’s distance learning network to web-based delivery, course offerings will be marketed more aggressively to a broader audience of potential attendees.
**NCTR Student of the Year: Julie Goodwill**

Julie Goodwill was selected as the 2004 NCTR Outstanding Student of the Year and received a $1,000 award and a trip to the 2004 TRB Annual Meeting, which included attendance at the UTC Student of the Year Awards Ceremony. Julie earned a Bachelor of Science degree in Human Resource Development from the University of Florida in 2001 and later enrolled in the University of South Florida's Public Administration master's program. She joined CUTR as a Graduate Research Assistant with the TDM Team in 2001, where she quickly became a valued and able contributor to a number of NCTR research projects, including serving as co-principal investigator on “Building Transit Oriented Development in Established Communities” and as a researcher on “Commuter Choice Manager and Parking Managers Coordination” and “Evaluation of Shared Use Park & Ride Impact on Facility Providers.” Julie was awarded a Master of Public Administration degree and a Graduate Certificate in Nonprofit Management from USF 2003, and currently works in New York City.

**NCTR Student Profile: Oliver Page**

Oliver Page is an NCTR Graduate Research Assistant currently studying towards a PhD in Civil Engineering with a focus on transportation. He has always had an interest in transportation, earning a bachelor’s degree in Maritime Studies from the University of Wales in 1985, a master’s degree in Transportation Planning and Engineering from the University of Southampton in 1989, and a Certificate in Logistics Management from Rand Afrikaans University in 1999. Prior to joining CUTR, he was a Researcher at the CSIR/Transportek in South Africa, where he published a book, *Crime and Crime Prevention on Public Transport* (Unisa Press). Oliver’s professional experience of 15 years and academic qualifications have enabled him to bring unique perspectives on a variety of cutting-edge NCTR funded projects, such as studying the community impacts of bus transfer centers. In 2004, he presented “Equity Impacts and Challenges of Highway Access Management in an Emerging Economy: South Africa at the Crossroads” at the 6th Access Management Conference in Kansas City and presented findings to date on the bus transfer center project at the Florida Public Transportation Association’s Professional Development Workshop. He ably serves as President of the USF Student Chapter of the Institute of Transportation Engineers and recently was awarded the 2004 Georgia Brosch Memorial Transportation Scholarship in recognition of his outstanding contributions to CUTR and USF.

**NCTR Student Profile: Melissa Salzler**

Until 2004, Melissa Salzler served as an NCTR Student Research Assistant for nearly five years while pursuing a Marketing degree from the University of South Florida. With no engineering skills or transportation knowledge but with great enthusiasm, she joined CUTR’s Transit Team, at the time not knowing that move would be a keystone to her future. Among her duties were data collection, organizing conferences, surveying Florida transit systems, and creating reports, all conducted while applying her newly-developing marketing skills and learning to love the transportation field. When she received her Bachelor's degree in 2004, with a primary goal of finding a job in which she could “make a difference,” the opportunity arose for her to continue in the transportation field—because of her transportation knowledge, marketing and communications skills, and dedication, she was asked by CUTR to join the TDM team as a faculty researcher responsible for outreach for the New North Trans-
portation Initiative, a consortium of businesses in the USF-Tampa area that addresses local transportation and congestion issues and is coordinated by CUTR. She is a welcome addition to a great team!

**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 nine 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.

**Joel Volinski**
President, Leadership APTA Alumni Association, APTA
TRIP Ambassador Emeritus, TCRP
Board of Directors, Florida Public Transportation Association
Member, APTA Research & Technology Committee; APTA Human Resources Committee
Member, TRB Transit Management and Performance Committee
Member, TCRP Project Screening Panel

**Gary Brosch**
Executive Committee, International Road Federation
Executive Committee, Research, Education and Training Reauthorization Consortium
Executive Director, Coast to Coast Rail Consortium

**Dennis Hinebaugh**
Chair, BRT Subcommittee, TRB
Member, Bus Transit Systems Committee, TRB
Panel Member, Synthesis SB-10: Transit Advertising Sales Agreements, TCRP
Panel Member, A-23: Cost Effectiveness of Selected BRT Components, TRB
Member, Public Transportation Marketing & Fare Policy Committee, TRB
Member, Bus Rapid Transit Task Force, APTA

**Steve Polzin**
Board of Directors, Hillsborough Area Regional Transit (HART)
Member, Light Rail Committee, TRB
Member, Public Transportation Planning & Development Committee, TRB
Member, Panel D2053, NCHRP
Member, Conference on Census Data for Transportation Planning, NCHRP
Member, Project 20-24(34): Commuting in America III, NCHRP
Education Committee, Southeast Transportation Center
Editorial Board, Journal of Public Transportation
Member, Policy & Planning Committee, APTA; Transit Board Members Committee, APTA

**Phil Winters**
Editor, TDM Review, ACT
Information Director, TDM Institute, ACT
Executive Committee, Transportation Planning Council, ITE
Chair, T3 Reauthorization Legislative Subcommittee, ACT
Transportation Planning Council Web Liaison, ITE

**Mike Baltes**
Member, Bicycle Transportation Committee, TRB

**Fabian Cevallos**
Contributor, dBase Developers Bulletin
Panel Member, Project H-28: Uses of Archived AVL/APC Data for Transit, TCRP
Panel Member, Project SH-03: Applications of GIS in Transit Planning and Operations, TCRP

**Xuehao Chu**
Referee, Journal of Infrastructure Modeling/Computing
NHTSA Panel, Methodology for Determining Motorcycle Operations
Editorial Board, Transportation Research Part A

**Sara Hendricks**
Member, Telework Council, Association for Computer Transportation (ACT)
Associate Editor, TDM Review, ACT

**Laurel Land**
Member, Paratransit Committee, TRB

**Victoria Perk**
Chair, Intermodal Operations Technical Forum, APTA
Member, Social/Economics Factors Committee, TRB
Member, Intermodal Passenger Facilities Committee, TRB

**Amber Reep**
Associate Staff, Federal Transportation Safety Institute

**Heather Sobush**
Vice Chair, Intermodal Operations Technical Forum, TMO Coordination Group
Francis Wambalaba
Board of Directors, ACT
Member, Professional Development Committee, ACT
Review Group, TCRP B-12/B-12A
Member, TDM Committee, TRB

Beverly Ward
Co-Chair, Mobility Subcommittee, TRB
Member, Joint Subcommittee on Community Impact Assessment, TRB
Member, Transportation Equity Advisory Board, Harvard Civil Rights Project

Publications and Presentations

During FY 2004, NCTR researchers were active in publishing and presenting at state and national conferences and meetings, as follows:

Publications

- Michael Baltes, “The Importance Customers Place on Specific Elements of BRT,” *Journal of Public Transportation*, December 2003
- Victoria Perk/Chandra Foreman, “Florida MPO Reports on Transit Capacity and Quality of Service,” *TRR 1841*, October 2003
- Xuehao Chu, “Overstating Transit Commuting, Understanding Carpool Mode Shares?” *TRR 1858*, January 2004
- Xuehao Chu, “Transportation, Land Use, and Economies of Scale,” *PLANetizen*, April 2004
Presentations

- Xuehao Chu/Michael Baltes, “Roadway Conditions as Contributing Factors in Florida Traffic Crashes,” Mid-Continent Transportation Research Symposium, August 2003
- Xuehao Chu/Martin Guttenplan/Michael Baltes, “The Role of the Street Environment in How People Cross Roads,” Mid-Continent Transportation Research Symposium, August 2003
- Sara Hendricks, “Results of the 2003 TMA Survey,” ACT International Conference, September 2003
- Victoria Perk, “Automated Methods for Collecting NTD Data,” Mid-Continent Transportation Research Symposium, August 2003
- Victoria Perk, “Conducting a Successful On-Board Survey of Public Transit Customers,” Mid-Continent Transportation Research Symposium, August 2003
- Steve Polzin, “Public Transportation Travel Trends,” APTA Annual Meeting, September 2003
- Cheryl Thole/Michael Baltes, “The Importance Customers Place on Specific Service Characteristics of BRT,” Mid-Continent Transportation Research Symposium, August 2003
- Francis Wambalaba, “Parking Management in Practice,” ACT International Conference, September 2003
- Laurel Land, “Florida’s Coordination of Services for the Transportation Disadvantaged,” APTA Annual Conference, October 2003
• Sara Hendricks, “Smart Travel Choices and Community Planning,” Smart Choices Symposium, December 2003
• Phil Winters, “Smart Travel Choices—Understanding Transportation Choice,” Smart Choices Symposium, December 2003
• Lisa Tucker, “To Drive or Not to Drive: Senior Attitudes and Available Alternatives,” International Conference on Aging and Disability, December 2003
• Joel Volinski, “Purpose of the Leadership APTA Alumni Association,” APTA Annual Conference, October 2003
• Laurel Land, “Florida’s Coordination of Services for the Transportation Disadvantaged,” FAPA Annual Conference, September 2003
• Lisa Staes, “Florida’s RTAP Program,” Florida TD Conference, August 2003
• Laurel Land, “Transit Feasibility for Highlands County,” FDOT District 1 Rural Transit Workshop, December 2003
• William Morris/Chris DeAnnuntis, “University Campus Master Planning and Transit,” FPTA Annual Conference, November 2003
• Lisa Staes/Amber Reep, “A Sea of Transit Training,” FPTA Conference, November 2003
• Francis Wambalaba, “Florida Commuter Choice Training Program,” FPTA Annual Conference, November 2003
• Xuehao Chu, “Testing Behavioral Hypotheses on Street Crossing,” TRB, January 2004
• Xuehao Chu, “A Time-Based Comparative Approach to Understanding the Dangers of Walking,” TRB, January 2004
• Xuehao Chu/Steve Polzin, “Measuring Vehicle Travel by Visitors,” TRB, January 2004
• Xuehao Chu/Steve Polzin, “Infrastructure and the Dangers of Walking,” TRB, January 2004
• Dennis Hinebaugh, “Automated BRT,” TRB, January 2004
• Dennis Hinebaugh, “BRT Transit Theory and Practice,” January 2004
• William Morris/Chris DeAnnuntis, “Efficacy of Transit Service in Mitigating Impact of Campus Development,” TRB, January 2004
• Jennifer Perone/Joel Volinski, “Fare, Free, or Something in Between,” TRB, January 2004
• Steve Polzin/William Barker, “Synergies between BRT and HOT Lanes,” TRB, January 2004
• Steve Polzin/William Barker/Gary Brosch, “Issues Related to Funding BRT,” January 2004
• Steve Polzin/Xuehao Chu/Lavenia Toole-Holt, “Forecasts of Future US Vehicle Miles of Travel,” TRB, January 2004
• Steve Polzin/Xuehao Chu/Lavenia Toole-Holt, “The Case for Moderate Growth in VMT,” FDOT, January 2004
• Joel Volinski, “Introduction to the Transit Cooperative Research Program” SC Public Transportation Association, March 2004
• Phil Winters, “Searching for Creative Solutions for Assessing LOS Equally Across Modes,” TRB, January 2004
• Xuehao Chu, “A Time-Based Comparative Approach to Understanding the Dangers of Walking,” 4th International Conference on Chinese Transportation, June 2004
• Sara Hendricks, “The Status of TMAs Today: What Survey Results Show,” Western Regional ACT Conference, April 2004
• Victoria Perk, “Impacts of Transfer Fares on Transit Ridership and Revenue,” APTA Bus/Paratransit Conference, May 2004
• Joel Volinski, “NCTR Overview,” APTA Bus/Paratransit Conference, May 2004
• Phil Winters/Amber Reep/Keith Thomas, “Bringing Transportation Research Results to Life,” USF 21st Century Teaching Technology Conference, March 2004
• Xuehao Chu, “Observation on State of the Practice: Transit Demand Forecasting,” Florida Transit Modeling Workshop, April 2004
• Sean Barbeau, “Traveling Smart: Increasing Transit Ridership by Automatic Data Collection,” USF Research Experience for Undergraduates, April 2004

**Training**

During FY 2004, NCTR researchers were active in either providing or arranging for the following training sessions:

- Commuter Choice Workshops: Elements of Successful TMAs (Sobush/Hendricks)
- Commuter Choice Workshops: Techniques (Wambalaba)
- Commuter Choice Workshops: Board Effectiveness and Management Issues (Wambalaba)
- Commuter Choice Workshops: Grant Writing
- Commuter Choice Workshops: Commuter Choice Summit
- Commuter Choice Workshops: Introduction to Commuter Choice Program (Wambalaba)
- Commuter Choice Workshops: Rideshare Options (Winters)
- Commuter Choice Workshops: Transit Service Options (Wambalaba)
- Commuter Choice Workshops: Parking Management (Winters)
- Commuter Choice Workshops: Bike & Pedestrian Programs (Hendricks)
- Commuter Choice Workshops: Telework/Compressed Work Week (Hendricks)
- Commuter Choice Workshops: ITS & Traffic Management (Hagen)
- Commuter Choice Workshops: Access Management (Williams)
- Commuter Choice Workshops: Commuter Choice Tax Benefits (Winters)
- Commuter Choice Workshops: Commuter Choice Support/Smart Commute (Wambalaba)
- CUTR/FPTA Professional Development Workshop: TSI Bus Collision Prevention/Investigation
- CUTR/FPTA Professional Development Workshop: Best Practices in Employee Relations (Daly)
- CUTR/FPTA Professional Development Workshop: Old Dogs, New Tricks: How Do They Learn? (Curtin)
- CUTR/FPTA Professional Development Workshop: Integrating Bikes & Transit (Hagelin)
- CUTR/FPTA Professional Development Workshop: Resource for APTS (Ubaka/Gregg)
- CUTR/FPTA Professional Development Workshop: Maintenance Plan Development (Bart)
- CUTR/FPTA Professional Development Workshop: Transit Marketing: Art or Science (Languille)
- CUTR/FPTA Professional Development Workshop: MPO Planning Process (Robinson/Goodwill)
- CUTR/FPTA Professional Development Workshop: Creative Thinking (Winters)
- CUTR/FPTA Professional Development Workshop: Substance Abuse Management Day Camp (Byrnes)
- CUTR/FPTA Professional Development Workshop: Transit Centers & Stops (Datz/Weidner/Volinski)
- CUTR/FPTA Professional Development Workshop: Grant Writing Techniques (Winters/Williams)
- CUTR/FPTA Professional Development Workshop: Park and Ride Management (Wambalaba)
- CUTR/FPTA Professional Development Workshop: Improving Public Relations (Audino)
- CUTR/FPTA Professional Development Workshop: Capital Improvement Program (Gregg)
- CUTR/FPTA Professional Development Workshop: Potential of BRT (Baltes/Hinebaugh/Thole)
- CUTR/FPTA Professional Development Workshop: Connecting Communities: Safety & Security (Adduci)
- CUTR/FPTA Professional Development Workshop: Managing Paratransit (Gregg)
- CUTR/FPTA Professional Development Workshop: Defensive Driving, A Way of Life (Roush)
- CUTR/FPTA Professional Development Workshop: Transit Development Plan Primer (Polzin/Perk)
- CUTR/FPTA Professional Development Workshop: Public Speaking: Clearing Your Hurdles (Dwyer)
- CUTR/FPTA Professional Development Workshop: The Learned Skill of MS PowerPoint (Reep)
- Florida Statewide Transit Training Program: Paratransit Drivers Qualifications Course - VOTRAN
- Florida Statewide Transit Training Program: Paratransit Drivers Qualifications Course - SCAT
- Florida Statewide Transit Training Program: NTD Training Seminar
- Florida Statewide Transit Training Program: Public Transportation 101: Transit Fundamentals
- National Transit Data Collection and Reporting Seminar
- Improving Public Relations in Transit Management (Audino)
- Model Plan Amendments/Regulations for Multimodal Transportation Districts (Williams)
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 2,100 subscribers from around the world and boasts a distinguished editorial board. As NCTR strives to maintain excellence in reaching both academicians and practitioners, it also attempts to keep abreast of technology in the journal’s distribution. Every issue of the Journal is now available electronically at www.nctr.usf.edu/jpt/journalfulltext.htm and can be downloaded in its entirety or by article.

Net Conferences: Learn More. Travel Less.

NCTR’s netconferencing project provides a cost-effective means to present research results and interact with public transportation professionals, many of whom are finding it increasingly difficult, costly and time-consuming to travel to conferences and workshops. NCTR uses netconferencing as a means for delivering information to the busy transportation professional in real-time and on-demand. In a netconference, “attendees” hear the audio portion of the live presentation via a toll-free telephone call and simultaneously view the PowerPoint presentation via the Internet. No additional hardware or software are needed to participate as a speaker or member of the audience. Sessions are recorded and are available for on-demand playback at the NCTR website.

In 2003-2004, NCTR sponsored the following three netconferences in partnership with the Association for Commuter Transportation that attracted more than 200 “conference attendees” who participated live from coast-to-coast but never had to leave their home city.

Talk the Talk: Communicating TDM in Business Terms (6/3/04)

This one-hour session featured Tad Widby, Vice President of Parsons Brinckerhoff and an ACT TDM Institute Director, and Jim Baetge, former executive officer of the California Water Quality Control Board and the Tahoe Regional Planning Agency. Mr. Widby compared productivity solutions from both the business and transportation fields, contrasting them with capacity solutions. Mr. Baetge discussed asset management, conservation, and other demand side solutions with a water resources and environmental perspective, applying those insights to the transportation field.

Transit-Oriented Development: Possibilities for TDM Professionals (1/27/04)

Elizabeth Deakin, Director of the University of California Transportation Center and Associate Professor of City and Regional Planning at UC Berkley, briefed TDM professionals on the when, where, and why of this sustainable development technique.
Using TDM to Manage Traffic at Special Events (10/15/03)
This one-hour session featured Peter J. Valk, President of Transportation Management Services, and Catherine Showalter of RIDES for Bay Area Commuters. Mr. Valk discussed how TDM can be used to manage travel demand related to events that draw large numbers of spectators such as entertainment, sporting, college campus activities, etc. Ms. Showalter talked about the transportation information services that RIDES gives to Giants’ fans that are going to baseball games at Pac Bell Park in San Francisco.

On-Demand Streaming Presentations
NCTR continues to develop on-demand streaming presentations to facilitate the transfer of knowledge from research and guest speakers. In usually less than 15 minutes, the public transportation professional can be informed of the key results of a NCTR research project with the expectation that more viewers will download the full report. This technology also is used to record guest speakers giving presentations to students and faculty so others outside of the center can benefit from their knowledge and experience. To respond to a wide range of browsers and media players, NCTR has acquired a Helix server to allow the center to stream in all the most popular formats.

Website
In addition to the netconferences and on-demand streaming presentations, NCTR provides links to more than 50 completed research projects in HTML and pdf formats. From July 1, 2003 to June 30, 2004, the NCTR website experienced the following:

- Successful requests: 1,660,924
- Average successful requests per day: 4,538
- Successful requests for pages: 204,348
- Average successful requests for pages per day: 558
- Distinct files requested: 13,275
- Distinct hosts served: 38,775
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 1,900 current subscribers, providing quick access to information and assistance from across the country. For example, the Bus Rapid Transit discussion group doubled its membership in the past year to 230 active members. The largest listserv, Transportation Demand Management, has 730 active subscribers. The NCTR opt-in e-newsletter has doubled to more than 400 subscribers, including representatives from major media outlets and professional trade groups with their own e-newsletters.

In addition to the searchable archives, a customer relationship management software product was adapted to make it easier to find answers to commonly asked questions and reduce the cost of responding to requests. The product was introduced on the NCTR National TDM and Telework Clearinghouse. More than 300 questions and answers were added to make it easier for people to get a quick answer to their question.

**Listserv Subscribers, 2003-04**

<table>
<thead>
<tr>
<th>Listserv</th>
<th>Subscribers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDM</td>
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</tr>
<tr>
<td>NCTR</td>
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<td>3%</td>
</tr>
<tr>
<td>Bus Rapid Transit</td>
<td>63</td>
<td>3%</td>
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<tr>
<td>Telework</td>
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<tr>
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<tr>
<td>NNTA</td>
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</tbody>
</table>

**KEY**

- Bus Rapid Transit = discussion forum for bus rapid transit
- Telework = discussion forum for telework
- 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
- Leadership APTA = discussion forum for “Leadership APTA” graduates
- RTAP = discussion forum for rural transit assistance program
Year 5 Research Program

NCTR recently completed the process to solicit and select research ideas for the FY 2005 program year. The process for submitting research ideas was made available on the NCTR website along with a user-friendly, web-based form. Letters requesting 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 over 120 different research ideas, the NCTR Advisory Committee provided assistance in selecting 6 core program and 11 research projects for funding in FY 2005.

Conclusion

In its fifth year, the 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 is excited about the possibilities of establishing an interdisciplinary transportation degree program that will attract even more students to the profession.

NCTR continues to enjoy 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.
Figure 1 presents the funding sources for the fifth year (FY 2004) 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.