Although it has been two decades since concurrency became a statewide mandate in Florida, many local governments still do not have a systematic approach to managing transportation concurrency. Smaller or rural communities, in particular, often lack the technical staff and resources to effectively monitor level of service for concurrency and conduct the necessary transportation impact studies. Adding to this problem is the lack of technical assistance resources for local governments on the mechanics of concurrency management systems. These issues, along with funding backlogs and the rapid pace of growth, have caused many Florida communities to address transportation concurrency in an ad hoc fashion, leading to less than desirable results.

The need for guidance to local governments on transportation concurrency has become more urgent with the advent of proportionate fair share options and other changes to Florida’s growth management legislation in 2005 and 2007. In recognition of this need, the Florida Department of Community Affairs (DCA) commissioned CUTR to research local transportation concurrency best practices and develop sample methodologies, procedures and agreements that local governments could use in carrying out their concurrency programs. CUTR was also asked to explore methods for evaluating the transportation impacts of comprehensive plan

continued on p.2
amendments and for achieving improved multijurisdictional coordination in evaluating and mitigating the transportation impacts of development.

This extensive two-year study culminated in a comprehensive guide on transportation concurrency best practices and a complementary concurrency management spreadsheet (see sidebar). The publication presents practical guidance on local transportation concurrency management systems and will be particularly useful to local governments that lack a systematic method of monitoring level of service for concurrency and evaluating transportation impacts. It also provides technical assistance on a variety of legislative changes relating to de minimis transportation impacts, compatibility of level of service standards, multijurisdictional coordination of methodologies, exemptions from development of regional impact (DRI) requirements, and transportation proportionate fair share mitigation.

The guide includes the following:

- Chapter 1 is an introduction to concurrency and issues in current practice.
- Chapter 2 provides an overview of the planning process for concurrency and considerations for establishing level of service standards, applying concurrency alternatives, and developing a concurrency management system.
- Chapter 3 examines the process for implementing transportation concurrency and the mechanics of a concurrency management tracking system.
- Chapter 4 discusses transportation impact assessment for concurrency, including the implications of various approaches to measuring “impact area” and a suggested traffic impact assessment methodology and example application.
- Chapter 5 provides strategies for improved multijurisdictional coordination in concurrency management, in recognition that transportation concurrency is best accomplished through coordination. It provides ideas on how to improve the compatibility of level of service standards and sample methodologies for evaluating transportation concurrency. The chapter also provides guidance on how to address the statutory exemptions from...
DRI requirements in s. 380.06(24), F.S. Appended to the chapter are a sample methodology, sample application, and two model intergovernmental agreements.

- The Appendix includes a sample method for evaluating the transportation impacts of comprehensive plan amendments.

This attractive, illustrated guide is an important first step toward improving local understanding of how to implement transportation concurrency. It does not, however, forge new ground.

“We conceived of the guide as a first edition, not the end of the story,” said Charles Gauthier, DCA project manager. “More research needs to be done on advancing multimodal options and creating more workable concurrency alternatives for major urban areas.” Toward that end, CUTR is assisting DCA in exploring methods and policy options for transportation concurrency that reinforce multimodal transportation and compact urban form.

The Department of Community Affairs will be distributing copies of the guide in November to Florida communities and interested parties, and an electronic copy can be downloaded at www.cutr.usf.edu. A limited number of books is also available from CUTR.

For further information on the guide or CUTR’s ongoing growth management research program, contact Karen Seggerman, kseggerman@cutr.usf.edu, or Kristine Williams, kwilliams@cutr.usf.edu, (813) 974-3120.

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Concurrency Management Tracking System

In 2007, CUTR produced a sample transportation concurrency management tracking system that implements the methodologies set forth in Transportation Concurrency: Best Practices Guide. The spreadsheet-based system can be adapted by local governments for use in:

- evaluating and monitoring traffic impacts of developments within a traffic distribution area
- maintaining information on the status of roadway links
- generating reports on road link status, development completion and traffic impacts

The concurrency management system produces a series of reports including a link summary, a concurrency evaluation report for regular and de minimis developments, and a de minimis trips report. Accompanying the spreadsheet is a detailed user guide that provides the user with illustrated step-by-step instructions.

The spreadsheet can be downloaded from the Department of Community Affairs website at www.cutr.usf.edu.

For further information, contact Pei-Sung Lin, lin@cutr.usf.edu, (813) 974-4910.
UTR Graduate Research Assistants Sara Hall and Dajana Vuckovic have been awarded a 2007 Georgia Brosch Memorial Transportation Scholarship.

Sara is pursuing a master’s degree (MSEM) in Engineering Management and Civil & Environmental Engineering under Ms. Dolores Gooding, with anticipated completion in May 2008. She works as a Graduate Research Assistant with CUTR faculty researcher Cheryl Thole, participating in projects on bus rapid transit and public transportation. She currently serves as president of the USF Student Chapter of the Institute of Transportation Engineering (ITE), was awarded the Parsons Brinckerhoff Jim Lammie Award for 2007, and was named Women in Transportation’s “Student of the Year” in 2006. She intends to pursue a career in transportation engineering.

Dajana is pursuing a master’s degree (MSCE) in Civil Engineering under Dr. Steve Polzin, with anticipated completion in December 2007. She works as a Graduate Research Assistant at CUTR with Dr. Polzin, participating in projects on transportation trend data and transportation modeling. She was president of the USF Student Chapter of the American Society of Civil Engineers (ASCE) and vice president of the USF Student Chapter of ITE. She received a FACERS Scholarship from the USF College of Engineering, a Phi Theta Kappa Transfer Achievement Scholarship, and the ASCE West Coast Branch Julian W. Silliman Award. She intends to pursue a career in transportation engineering.

The $1,000 scholarships are awarded based on academic achievement, professional activities, and career goals. The recipients were recognized at the 2007 CUTR Transportation Achievement Award Dinner on November 1.

UTR founding Director Gary Brosch has been elected to the Florida Public Transportation Association’s Hall of Fame Class of 2007. Brosch served as director of CUTR from its establishment in 1988 until 2003. He has been directly involved with policy and research associated with public transportation since 1981, when he worked as a Special Economic Advisor with the Urban Mass Transportation Administration (UMTA, now the Federal Transportation Administration) and later as Vice President of the Rice Center in Houston. Through his leadership, CUTR has contributed substantially to the development of public transportation in Florida.

Also inducted in 2007 was former Florida Senator James T. Hargrett, Jr.

The 2007 inductees were recognized at the FPTA Annual Meeting in Orlando in October.
Message from the NCTR Director

The year 2006-07 was an eventful one for the faculty and students at the National Center for Transit Research at CUTR. For the second time in four years, NCTR had to compete to retain its status as a Tier I University Transportation Center. Once again, we were successful in being selected as one of 10 centers in the U.S. out of 36 universities that applied.

Our primary goal is that NCTR be of value to the transportation industry. A web search for “transit research” reveals that NCTR’s website ranks 1st with Google, 1st with Ask, and 3rd with Yahoo. From NCTR’s website, a visitor can download 87 reports that we have produced (10 completed in the past year), view on-demand streamed video presentations that summarize many of our reports, or listen to and view one of the many netcasts of seminars that NCTR arranged. They can subscribe to a variety of NCTR-operated listservs that now have more than 2,300 members who constantly trade information and stay up to date with new developments. They can read or download each edition of NCTR’s *Journal of Public Transportation*, the only academic journal dedicated to public transportation issues, now with over 2,200 subscribers.

In addition to the electronically-connected community that we manage and grow, NCTR faculty are engaged in numerous professional development forums to share the results of research and help develop solutions to new and old issues. They frequently are contacted to make presentations, moderate professional panels, and facilitate workshops. More than 40 presentations of NCTR research were made at state, national, and international transportation conferences last year. The Federal Transit Administration asked NCTR researchers to facilitate sessions between transit agency representatives, new UTCs, and FTA to help shape research agendas of mutual benefit. The Florida Public Transportation Association has placed its faith in NCTR faculty to develop its professional development workshops and conferences. Leaders in Transportation Demand Management regard NCTR as “THE place to go when looking for state-of-the-art information.”

NCTR continues to produce students who contribute outstanding work to the field of transportation. Two of our students were honored as recipients of major scholarships from the American Public Transportation Association in recognition of their budding capabilities in the world of transit. NCTR has produced students who now serve as general managers of transit systems, leaders within DOTs, and prominent consultants.

Does NCTR provide value? Yes, to thousands directly and to millions indirectly who benefit from our theme of “enhancing the performance and relevance of public transportation and alternative forms of transportation in urban areas.” We say that to remind ourselves of the importance of our mission, and in gratitude for the opportunity to serve in such a capacity.

NCTR’s faculty and students look forward to another year of bringing even more value to you.

Joel Volinski, NCTR Director
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. 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.

NCTR 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. Minnie Fells-Johnson  
Public Transportation Consultant

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

Richard Long  
Director, Office of Research  
Florida Department of Transportation

Perry Maull  
Operations Manager  
Indiana University Campus Bus Service

Bill McCloud  
Senior Vice President & COO  
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 8 Accomplishments

Research

The 8th year of the NCTR program supported 15 projects approved by the NCTR Advisory Committee. These projects consist of 5 core programs that will be conducted throughout the life of NCTR and 10 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

- National Transportation Demand Management (TDM) and Telework Clearinghouse
- STEP (Student Transportation Education Program)
- ongoing production of teleconferences and webcasting
- graduate student professional development
- Journal of Public Transportation

New Projects in Year 8

- An Evaluation of Public Transportation Productivity Trends and Funding Challenges
- Development of a Large Bus/Small Bus Decisions Support Tool
- Enhancing Transit Safety and Security with Wireless Detection and Communications Technology
- Development of an NTD Tool for Vanpool Services
- Integrating Transit and Urban Form
- Programs that Match Seniors with Volunteer Drivers
- Repair Time Standards for Transit Vehicles—Phase IV
- Best Practices in Transit Service Planning
- Impacts of More Rigorous ADA Paratransit Eligibility Assessments on Riders with Disabilities
- Exploration of a Shift in Household Transportation Spending

Research Projects Completed in Year 8

- Bus Incident Reporting, Tracking, and Analysis System
- Guidebook for Startup Transit Agencies
- Using Local Transit On-Board Surveys for State-Level Measurement
- Finding Ways to Reduce Insurance and Bonding Costs for Major Transit Projects
- Validating T-BEST Models with 100% APC Counts
- The National Smart Transportation Archive Researcher NSTAR Program
- Impact of Employer-Based Programs on Transit System Ridership and Transportation System Performance
- Repair Time Standards for Transit Vehicles—Phase III
- Economics of Travel Demand Management: Comparative Cost Effectiveness and Public Investment
- Development of Alternative Measures of Transit Mode Share

2006 NCTR Student of the Year—Oliver Page

Oliver Page entered the USF Civil Engineering program after earning his MS in Transportation Planning and Engineering from the University of Southampton, UK. He earned a PhD in Civil Engineering in December 2006 and served as President of the student chapter of ITE at USF. He made substantial contributions to a number of projects funded through NCTR and provided substantive assistance in a recently-completed TCRP report. He continues to conduct research and teach in the field of transportation at the University of Michigan Transportation Research Institute.

Education

The academic program at USF continues to evolve. Faculty and administration turnover at the University impacted the pace of full-time student enrollments; however, growth in cer
Certificate program enrollment and distance learning students resulted in 2006-07 having the highest enrollment levels in transportation courses in several years. There is an increasing emphasis on the “five-year program,” designed to let undergraduates 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. Job placement has remained very strong, and requests for student resumes far exceed the supply. The program continues to be proud of its placement record, with numerous students finding increasingly prestigious employment opportunities.

Transportation Certificate Program
CUTR’s newest certificate, 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. Individuals can complete the certificate via distance learning, making it particularly attractive for continuing education for working professionals. Regular inquiries regarding certificates are received, and a growing number of students are now pursuing coursework.

Exploration of Additional Public Transportation Graduate Courses
NCTR has continued interest in expanding course materials targeting transportation. At this point, tight University budgets and stable enrollment levels have prevented additional course offerings. In addition, NCTR continues to explore administrative strategies that might enable the provision of public transportation courses offered nationally but that can be taken as an elective by students in other programs.

STEP 2007
For the 8th year, the Student Transportation Education Program (STEP) was held at CUTR during the summer. 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 2007 STEP class consisted primarily of freshmen and sophomore students in high schools from Hillsborough County. The students were introduced to public transportation career opportunities related to engineering, safety, operations, and planning, among others.

Technology Transfer

Professional Activities
NCTR staff continue to have significant involvement with partners in the public transportation industry, including serving on 17 Transportation Research Board (TRB) committees and holding leadership positions in the American Public Transportation Association (APTA), the Association for Commuter Transportation (ACT), and the Institute of Transportation Engineers (ITE).
Year 8 Publications

- Barbeau/Aguilar et al., Quantifying the Position Accuracy of Real-Time Multi-Modal Transportation Behaviors, *Transportation Research Record* (TRR)
- Cain, Teenage Mobility in the U.S.: Issues and Opportunities for Promoting Transit, TRR 1972
- Cain/Darido, Applicability of Bogota's Transmilenio BRT System to the U.S., TRB Compendium
- Chu, Ridership Accuracy and Transit Formula Grants, TRR 1986
- Chu et al., Crossing Locations, Light Conditions, Pedestrian Injury Severity, TRR 1982
- Chu/Kourtellis et al., Considering Usage/Safety Effects for Uncontrolled Midblock Crosswalks, TRB Compendium
- Chu/Polzin, Theoretical/Empirical Analyses of Transit’s Usual/Actual Mode Shares, TRB Compendium
- Chu/Polzin et al., A Framework of Modeling/Forecasting Stop-Level Transit Patronage, TRB Compendium
- Concannon/Winters, Impact of Carpooling on Trip-Chaining Behavior/Emission Reductions, TRB Compendium
- Darido, BRT Opportunity, *Natural Gas Fuels*
- Darido et al., Performance and Lessons from Implementation of BRT in the U.S., TRB Compendium
- Kramer/Hopes, Models for Independence: Organizational Structures of Independent MPOs in Florida, TRB Compendium
- Lin et al., Automatic Transformation of Video Image Data from UAV’s, *Compendium*, ITS World Congress
- Lin/Rai/Hagen, Development of an Adaptive Rear-End Crash Avoidance Model, *Compendium*, ITS World Congress
- Mierzejewski/Seggerman, What is New in Transportation & Growth Management?, *Compendium*, ITE Annual Meeting
- Polzin, Obesity, Transportation & Energy Use, *Planetizen*
- Polzin/Page, Active & Former Drivers: Critical Link in Understanding Future Travel Demand, TRB Compendium
- Seggerman, Shall We Dance? Achieving Corridor Management through International Cooperation/Coordination, *Compendium*, ITE Annual Meeting
- Seggerman, Transportation Concurrency, Intergovernmental Review, Impact Fees, TRB Compendium
- Williams/Seggerman/Kramer, Integrating Access Management into Local Transportation Planning, TRB Conference on Transportation Planning
- Winters/Shannon, Journey to Work Census Data Released, *TDM Review*
- Zhou, Benefit and Cost Analysis of Road Ranger Program in Florida, *Compendium*, ITE Annual Meeting
- Zhou, Empirical Delay Models for Multi-Lane Two-Way Stop-Controlled Intersections, *ITE Journal*
Year 8 Presentations

- Audino, Increasing Human Effectiveness, National Rural Public Transportation Conference; Getting the Right People on the Bus, National Rural Public Transportation Conference
- Audino/Page, Safe Mobility for Seniors Who Drive Less, 11th International Conference on Mobility/Transport
- Barbeau, Using GPS-Enabled Mobile Phones and Location-Aware Technology, TRANSPO 2006
- Barbeau et al., Quantifying the Position Accuracy of Real-Time Transportation Data, TRB
- Barbeau/Aguilar et al., A Comparison of Fix Times and Estimated Accuracies in Application Program Interfaces, 11th World Conference on Transport Research
- Bezdecny, Integrating GIS into a Transit Development Plan, Symposium on 21st Century Teaching Technologies
- Bezdecny/Catala, Use of Census Data in Spatial Analysis for Transit Planning, ESRIs 27th Annual International Users Conference
- Bond, TDM 101, ACT International Conference; TDM 101.2, SEACT Conference
- Cain, Applicability of Bogota’s BRT System to the U.S., APTA/TRB BRT Conference; Bus Rapid Transit, ASCE Transportation Growth Seminar; Applicability of Bogota’s BRT System to the U.S., Segunda Feria, Bogota; Developing Design Guidelines for Printed Transit Information Materials, APTA Marketing Workshop; Tracking the Evolution of the Bogota Model, 2007 APTA Bus/Paratransit Conference; Quantifying the Importance of Image/Perception to BRT, 2007 APTA Bus/Paratransit Conference; Integration of Accessibility into BRT Projects in the U.S., 5th International Workshop on Public Transportation; The Bogota Model: Maximizing Mobility and Operational Efficiency, America’s Competitiveness Forum; Developing Design Guidelines for Printed Transit Information Materials, FPTA Workshop
- Cain/Darido, Applicability of Bogota’s Transmilenio BRT System to U.S., TRB; Overview of BRT in the U.S. and Lessons Learned from South America, UITP International Bus Conference; Tracking the Evolution of the Bogota Model, FTA Briefing Session
- Chu/Kourtellis et al., Considering Usage/Safety Effects for Uncontrolled Midblock Crosswalks, TRB
- Chu/Polzin, Theoretical/Empirical Analyses of Transit’s Usual/Actual Mode Shares, TRB
- Chu/Polzin et al., A Framework of Modeling/Forecasting Stop-Level Transit Patronage, TRB
- Concas/Winters, Impact of Carpooling on Trip-Chaining Behavior/Emission Reductions, TRB
- Cusack, Florida Vehicle Procurement Program, APTA Bus & Paratransit Conference
- Cusack/Chaudhary/Wooten, Florida Vehicle Procurement Program, FPTA Workshop
- Darido, Lessons from ITS Deployments of Recent BRT Implementations, APTA/TRB BRT Conference; Overview of Characteristics of BRT, ASCE BRT Workshop
- Darido et al., Performance and Lessons from Implementation of BRT in the U.S., TRB
- Goodwill, Special Event Transportation Planning & Operations Strategies for Transit, TRB Conference on Managing Travel
- Gregg, Existing Florida Recruitment Issues/Practices, FPTA Workshop
- Hagelin, Challenges & Opportunities in a Post-Oil Peak World, ACT International Conference; Integrating Bicycles and Transit through the Bike to Bus Strategy, APTA Intermodal Workshop
- Hendricks, National Smart Transportation Archive Researcher, ACT International Conference; Alternative Transportation and the Land Development Process, Environmental Research Colloquium
- Hinebaugh, Moderator, BRT Technical Workshop, FTA
- Hopes/Bezdecny, GIS and Access Management, Symposium on 21st Century Teaching Technologies
• Kramer, MPO Organization & Structure, NC Association of MPOs; Driving the Transportation Planning Process: Essential Information for County Commissions, Florida Association of Counties; MPO Financial Planning: Issues & Next Steps, Federal Planning Requirements Workshop
• Kramer/Hopes, Models for Independence: Organizational Structures of Independent MPOs in Florida, TRB
  • Lin, Integration of Traffic Signal Systems across Multiple Jurisdictions, ITE Annual Meeting; Successful Experience from FDOT Districts for Reducing Queues, TRANSPO 2006; Advancement of Adaptive Rear-End Crash Avoidance Systems, TRANSPO 2006
• Mierzejewski, Growth Management and Concurrency in Florida, Maryland National Capital Park & Planning Commission
• Mistretta, Multi-Lingual Customer Support, FPTA Workshop; RAPTS Overview, FPTA Workshop
• Page, Transit Use Viability among Older Drivers Losing Driving Privileges, TRB Rural Public/Intercity Bus Conference; Partnering with the Community to Develop Their Plan, TRB Rural Public/Intercity Bus Conference
• Polzin, Looking Ahead, the Changing World for Transportation, Georgia MPO Annual Conference; The Case for More Moderate Growth in VMT, TRANSPO 2006; State of Our Industry: Observations on the Future of Public Transportation, FPTA Workshop; Transit Development Plan Guidelines, FPTA Workshop; Observations/Perspectives on Using ACS Data (keynote), Transportation Planning Capacity Building Program
• Polzin/Page, Active & Former Drivers: Critical Link in Understanding Future Travel Demand, TRB
• Rai/Lin, Case Study of Safety Impacts of Congestion on Urban Freeways, ITE 2007 Conference
• Sapper/Reep, An Innovative Approach to Statewide Bus Incident Reporting, National Rural Public Transportation Conference
• Seggerman, Shall We Dance? Achieving Corridor Management through International Cooperation/Coordination, TRB Conference on Access Management; Corridor Policy and Agreement Development (panelist), TRB Conference on Access Management; Best Practices for Transportation Concurrency, TRANSPO 2006; Transportation Concurrency, Intergovernmental Review, Impact Fees, TRB
• Staes, Florida Transit System Hazard and Security Plans, National Rural Public Transportation Conference; A United Approach to Rural and Urban Operator Training/Networking, National Rural Public Transportation Conference
• Staes/Sapper, Developing Bus System Safety/Security Programs, FPTA Workshop
• Volinski, Lessons Learned in Paratransit Efficiencies, APTA Board Seminar/Workshop; NCTR Objectives/Achievements, CUTC; Introduction to the Transit Cooperative Research Program, North Carolina Public Transportation Association Annual Meeting; Developing Bus Transfer Centers for Maximum Community Benefit, Virginia Transit Association Annual Meeting; Lessons Learned in Transit Efficiencies, Revenue Generation, Cost Reductions, Virginia Transit Association Annual Meeting; Lessons Learned in Paratransit Efficiencies, Virginia Transit Association Annual Meeting; Developing Transit Centers as Community Assets, DCA Urban Redevelopment Conference; Moderator, Current Issues in Transit Management, TRB;
• Volinski/Flynn, Strategies for Successful Intra-Urban Circulator Systems, APTA Intermodal Workshop
• Williams, Model Proportionate Fair Share Ordinance, TRANSPO 2006; Developer Contributions for Transportation Facilities, NC Transportation Commission; Integrating Access Management into Transportation Planning, Arkansas Transportation Planning Conference
• Williams/Seggerman/Kramer, Integrating Access Management into Local Transportation Planning, TRB Conference on Transportation Planning
• Zhou, Benefit and Cost Analysis of Road Ranger Program in Florida, TRANSPO 2006
• Zhou/Hagen/Singh/Lin, Benefit and Cost Analysis of Road Ranger Program in Florida, Access Management Annual Meeting

**Year 8 Training**

*Bus Operator Training*
- TSI Fatigue Awareness
- Instructor's Course in Bus Operator Training

*Commuter Choice*
- Long Range TDM Planning
- Bicycles & Transit through the Bike to Bus Strategy
- Establishing Program Goals & Objectives
- Institutional Arrangements
- Measuring Results and Performance
- Introduction to Basic Marketing Strategies & Campaigns
- Creative Thinking for Transportation Professionals
- Social Marketing
- Bicycle & Pedestrian Issues
- Incorporating TDM into the Land Development Process
- Rideshare Options
- Parking Management
- Commuter Choice Tax Benefits
- Commuter Choice Support Programs & Smart Commute Strategies
- Bicycle/Pedestrian Issues
- Car Sharing Programs
- Transit Service Options
- Access Management
- Creative Thinking for Transportation Professionals
- TDM Case Studies
- Public Speaking

*CUTR*
- NTD Training
- Introduction to Transit Operations Planning

*Florida Public Transit Association Workshop*
- Leadership Modules 1-4
- Bus Incident Reporting
- Growth Management & Concurrency
- Mobility Management Strategies
- Where Art Thou, Bus Stop?
- Sexual Harassment & Discrimination
- Transit Funding
Investigating Harassment  
Developing a Printed Transit Information Material Design Manual  
Improving Security at Transit Facilities & Passenger Stations  
System Security Planning/System Safety Program Plans  
Supervisor’s Refresher on Substance Abuse Management  
Florida Vehicle Procurement Program, Online Software  
Florida Transit Marketing Network  
Transit Development Plan Tool Kit  
Conflict Resolution  
Integrated Strategic Planning  
Organizational Change  
Advanced Technical Training for Transit Mechanics

Transit Training
- TSI Fundamentals of Bus Collision Investigation  
- Conflict Management  
- TSI Transit Bus System Safety  
- Substance Abuse Management/Program Compliance  
- TSI Transit Response to Bus Hijackings  
- Creating a Transit Safety Culture

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

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

Net 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 telephone, 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 it 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.

To leverage NCTR’s resources, ACT chapters were enlisted to host netconferences in their cities and invite members and non-members alike. Based on the topic, from 15 to 25 locations participated in the netconferences live and attracted up to 150 “conference attendees” each. In 2006-07, NCTR sponsored the following netconferences in partnership with the Association for Commuter Transportation:

- “A Look at Employer TDM Programs in the Midwest” Netconference
- “Do You Get What You Incent?: A Virtual Discussion on Areawide Commuter Financial Incentives”
- “Striving to Be the Best: Employer TDM Programs That Deliver Results to Employees and Stockholders” Netconference

Discussion Forums and Listservs

NCTR continues to see increases in the number of subscribers across the board from its public transportation-related listservs. These discussion forums and e-newsletters 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-newsletters provide information on what is new at NCTR and include 350 electronic subscriptions to the Journal of Public Transportation.

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*new in 2006/07

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.
Website

In addition to the netconferences and on-demand streaming presentations, NCTR provides links to 87 completed research reports in HTML and pdf formats. As the following table shows, most NCTR websites are found at or near the top of major search engines when using key search terms reflecting NCTR priorities.

<table>
<thead>
<tr>
<th>Search Term</th>
<th>Google</th>
<th>Yahoo</th>
<th>Ask</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Transit Research”</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>“Bus Rapid Transit”</td>
<td>8</td>
<td>16</td>
<td>6</td>
</tr>
<tr>
<td>“Transportation Demand Management”</td>
<td>4</td>
<td>27</td>
<td>5</td>
</tr>
</tbody>
</table>

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 the topics that 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.

Conclusion

At the completion of its 8th 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 transportation authorities 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.
Factors affecting students walking or biking to school

Traffic congestion and delays continue to be a problem for cities large and small. Studies show that as much as 25% of morning rush-hour traffic can be school-related as the primary mode of travel to school for the majority of students is by automobile. In 2005, the U.S. Congress designated $612 million toward developing the National Safe Routes to School (SRTS) Program, which provides funds to states to improve the ability of primary and middle school students to walk and bike to school safely through engineering and educational measures.

As part of the Florida SRTS program, CUTR was contracted by the Florida Department of Transportation to conduct a pilot survey of students and parents to investigate characteristics of student travel behaviors before implementation of the SRTS education program and engineering improvements. Influential factors that affect the number of children who walk or bike to schools were identified and ranked.

Methodology

Two surveys, one of parents and one of students, were conducted for this study. The student survey was conducted in the classroom by teachers who tallied how students arrived and departed from the school over a five-day period (Monday through Friday). The parent survey was distributed by teachers to each student as a homework assignment; parents were asked to identify their child(ren)’s travel modes to school and factors that affect their decisions.

The survey used a standard multiple choice form and a data input tool designed by the National SRTS Council. Two types of questions were asked in the parent survey. The first focused on demographic characteristics of their child(ren), such as age, gender, number of children in the family, and distance from home to the school. The second surveyed parents’ subjective feelings or opinions about their child(ren) walking or biking to school.

Survey Results

The surveys were conducted in Hillsborough County (Florida); 27 schools were selected, and 14 schools completed the survey. For the student survey, 489 classrooms were surveyed and 416 tally sheets were returned, a student response rate of 84%. For the parent survey, 12,318 survey forms were distributed and 3,213 were returned, a response rate of 26%.

In the survey, five primary modes of travel to school for students were identified: walking, biking, carpooling, travel by family vehicle, and travel by school bus. Two additional options were included in the student survey form—travel by transit and Other. The survey results indicated that the percentage of students walking or biking to school is relatively low in the 14 schools: 10.9% for walking, and 2.3% for biking. For the remainder, 39.6% travel by family vehicle, 37.7% travel by school bus, and 9.5% travel by carpool.

Parent Survey. To attract more students to walk or bike to school, it is necessary to determine the factors that prevent children from walking or biking to school and their relative importance. Proper measures can then be designed and implemented to improve the student travel environment to school. Factors presented to parents as potential barriers to children walking or biking to school include distance, convenience, time, extracurricular activities, speed and amount of traffic along route, adult co-walker, sidewalks or pathways, safety of intersections and crossings, presence of crossing guards, violence, and weather.

Parents were asked two types of questions regarding these factors. The first was whether these factors affect their current decision to allow their child(ren) to walk or bike to school; the second was if they would allow their child(ren) to walk or bike to school if the conditions were improved. In total, 3,213 parents were surveyed on this issue.

For some factors, such as traffic volume and speed along route, only a small percentage of parents would allow their children to walk or bike to school even after improvements. For other factors, such as the presence of crossing
guards or an adult co-walker, a significant percentage of parents would make allowances after improvements. Clearly, parent concerns about safety could be changed after improvements to some factors. Factors such as distance, intersection safety, sidewalks or pathways, convenience of driving, traffic volume, and traffic speed along route can be improved through engineering methods such as pathway connections, traffic sign/signal installation, etc. Education and enforcement could provide improvement to factors such as adult co-walker, crossing guards, violence, or crime.

**Student Survey.** The survey of students showed that student demographic characteristics such as grade level, gender, number of children in the family, and distance from home to school affect their travel mode to school.

- With increasing grade level, student travel modes to school shifted from carpool and family vehicle to walking, biking, and family vehicle. Students in grade 7 had the highest levels of walking and biking: 35% walk to school and 9.4% bike to school.

- When the distance from home to school is short, walking is the prevailing travel mode to school for students. Of students who live less than ¼ mile from school, more than 51% walk to school. With increasing distance from home to school, student travel modes shift from walking and biking to family vehicle, carpool, and school bus.

- As the number of children in a family increases, school bus travel increases. Most students from families with more than 3 children choose school bus as their primary travel mode to school.

**Subjective Opinions.** Subjective opinions about health, enjoyment, and encouragement related to walking or biking also can affect the decision regarding travel mode to school. Survey results indicated that most students and parents held positive attitudes towards walking or biking to school.

- Approximately 40% of students consider it fun or very fun to walk or bike to school; less than 10% students consider it boring or very boring.

- Over 57% of students consider it healthy or very healthy to walk or bike to school.

- Nearly 79% students have asked their parents for permission to walk or bike to school.

- Nearly 33% of parents would allow their child(ren) to walk or bike alone, depending on grade level.

**Conclusion**

Statistical test results revealed that student demographic characteristics and subjective opinions are significantly associated with student travel mode to school. Survey results show that, with improvements to some conditions such as distance and intersection safety, parents would considering allowing their child(ren) to walk or bike to school. These are important factors to consider when designing a Safe Routes to School Program.

For further information on this study, contact CUTR Senior Research Associate Dr. Huaguo Zhou at (813) 974-9809, zhou@cutr.usf.edu, or Jiguang Zhao at (813) 974-9795, zhao@cutr.usf.edu.
The Association for Commuter Transportation (ACT) announced that Philip L. Winters, Director of the Transportation Demand Management (TDM) Program at CUTR, is this year’s recipient of the prestigious Bob Owens TDM Champion Award. Winters accepted the award September 11 at ACT’s International Conference in Seattle.

The Bob Owens Award was created to recognize individuals who influence positive local, regional, or national efforts to reduce traffic congestion, decrease pollution, and improve mobility through transportation demand management programs such as carpooling, vanpooling, bicycling to work, flexible work hours, and telework.

“Phil’s contributions to ACT and to the field of TDM have been tremendous,” said Mark Wright, executive director of ACT. “He has devoted his career to finding innovative ways to improve mobility.”

“It was quite a surprise and honor to be recognized by my peers,” said Winters. “Many of the accomplishments wouldn’t have been possible without an excellent team at CUTR and supportive clients like the Florida Department of Transportation.”

Winters joined CUTR in 1993. Prior to that, he served as a consultant and the first president of Ridefinders Inc., in Richmond, Virginia. He shares his research findings regularly through national presentations, papers and published reports, has served in a leadership capacity for several professional organizations including the Transportation Research Board, and has received national recognition for his TDM research.

Each year, ACT recognizes outstanding achievements and significant contributions made by individuals and organizations to commute options and transportation management. The ACT Board of Directors is responsible for selecting the recipient of the Bob Owens TDM Champion.

Also at the conference, CUTR Researcher Julie Bond was recognized with 2nd place in ACT’s Creative Excellence Award competition for the TampaBayCycle campaign that promotes commuting to work by bicycle.

Winters also was recently named a Member Emeritus of the TRB Committee on Transportation Demand Management, a rare honor bestowed on longtime members and contributors worthy of special recognition by their peers.

For more information on these awards, contact Sara Hendricks, hendricks@cutr.usf.edu.

Bond joins CUTR faculty

Alex Bond, AICP, has joined CUTR as a Faculty Research Associate with the Planning and Corridor Management Program. He holds a master’s degree in Urban and Regional Planning from the University of Florida, where he also earned a bachelor’s degree in Geography.

Prior to joining CUTR, he was a Scholar in Residence with the Urban Land Institute and a policy analyst for the National Association of Regional Councils in Washington DC, where he advocated metropolitan planning organization interests to Congress during the SAFETEA-LU adoption and implementation process.

Bond specializes in metropolitan planning, intergovernmental relations, transportation policy and planning, growth management, housing and economic development factors, and geographic information systems.
Award dinner honors Jim Ely

Nearly 300 transportation professionals, legislators, and others affiliated with the Florida transportation industry attended the CUTR Transportation Achievement Award Dinner on November 1 at the Museum of Science & Industry in Tampa. The 2007 honoree was Jim Ely, recognized for his outstanding leadership in transportation. The keynote address for the dinner was made by FDOT Secretary Stephanie Kopelousos.

Ely has served as Executive Director of Florida’s Turnpike Enterprise since 1989. In 2003, the Turnpike was awarded the International Bridge, Tunnel and Turnpike Association (IBTTA) President’s Awards for Innovation and Excellence for the design of the Suncoast Parkway and in 2005 received the JD Powers and Associates Seal of Approval for Excellence in Call Center Operations for its electronic toll collection system called SunPass.

CUTR Advisory Board Chair Kim Deboisier, CUTR Director Ed Mierzejewski, honoree Jim Ely, FDOT Secretary Stephanie Kopelousos

Ely is President of IBTTA and Chair of the Transportation and Expressway Authority Members of Florida. He also serves on the Executive Board of the Florida Department of Transportation.