1995-1996
Annual Report

Center for Urban Transportation Research
College of Engineering
University of South Florida
1995-1996
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CUTR
Center for Urban Transportation Research
College of Engineering
University of South Florida
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"To serve as a resource for policymakers, transportation professionals, the education system, and the public by providing high quality, objective transportation research."

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As USF celebrates its 40th anniversary, we continue to work toward our vision of being "the university of first choice for those seeking a nationally-recognized learning community." USF has become the nation's 13th largest university, drawing students from all over the globe. A long-awaited football team has become a reality. New degree programs are being created, with more on the way. New construction abounds across the campus, including the new building for CUTR.

As we work toward the 21st century, we will continue to value excellence in teaching, research, service, and support activities; promote the free exchange of ideas in the spirit of academic freedom and professional responsibility; and contribute to the greater understanding and resolution of societal problems. CUTR continues to be an important and active partner in helping to achieve these goals.

Betty Castor
President, University of South Florida

USF has emerged not only as a rich resource for strengthening the financial base of our region but as a catalyst to improve the quality of life for its citizens. A vast opportunity exists for the USF College of Engineering to be the engine for regional economic development in Florida. CUTR's role in that development will be crucial in the years to come. Good transportation and infrastructure underpin all economic expansion. CUTR's dedication to developing useful solutions to current problems and to providing students and faculty with skills and perspectives needed to ensure needed technological leadership will aid us in our mission to provide technical assistance and technology transfer to the region, state, and nation. I congratulate CUTR on another successful year and look forward to a continued partnership in working toward improving the quality of life for all.

Michael Kovac
Dean, USF College of Engineering
CUTR continues to enhance its growing state and national reputation for conducting innovative research that translates directly into benefits for its project sponsors. With nearly 40 full-time researchers, 20 graduate assistants, and 20 support staff, we conduct more than $5 million in sponsored research annually. Since our establishment in 1988, we have completed in excess of 200 projects, valued at nearly $30 million. Our success is the result of the broad diversity of skills, education, experience, and backgrounds of our researchers; the multidisciplinary approach of our research program; the strong partnerships we have formed with our project sponsors; the common vision of conducting meaningful, high-quality research shared by all our employees; and our dedication to the pursuit of excellence.

We achieved several milestones in 1995-96. Construction of our new building began (see front cover), with an expected occupancy in March 1997. This new facility will allow us greater opportunities for technology transfer and research activities with its labs, lecture halls, and state-of-the-art teleconferencing capabilities.

The State Transportation Policy Initiative, a multi-phase examination of how Florida plans its transportation system and spends its transportation dollars, was completed, resulting in 13 widely-distributed and highly-acclaimed research reports.

The first issue of the *Journal of Public Transportation* was recently published. This represents nearly three years of hard work in establishing a distinguished Editorial Board, soliciting and receiving papers, identifying and working with paper reviewers, and designing, printing, and determining proper distribution for the Journal. Funded through our designation as a National Urban Institute, the journal is being distributed free of charge for the first year to 5,000 transportation professionals and academicians, transportation organizations, and others across the U.S. and was formally introduced at the 1996 National Conference of the American Public Transit Association in Anaheim.

Technology transfer continues to be a high priority at CUTR. Activities in this area in 1995-96 included development and production of national conferences on the use of geographic information systems (GIS) in transit and on African-American mobility issues; development and presentation of several training programs in the areas of transportation demand management, access management, bus maintenance, and transportation for the elderly and people with disabilities; establishment and maintenance of a site on the World Wide Web; production and distribution of the *Florida Transportation Almanac and Atlas* on CD-ROM; and publication and distribution of numerous transportation-related manuals, reports, guidebooks, and newsletters.

We remain dedicated to training and providing guidance to the next generation of transportation professionals. The USF Graduate Interdisciplinary Transportation Program welcomed its first class of students in Fall 1995, and we also welcomed eight graduate students designated as Fellows of the Southeastern Transportation Center, a consortium of 12 southeastern universities. Additionally, the USF Student Chapter of the Institute of Transportation Engineers remains housed as CUTR.

We continue to increase our knowledge and expertise in a broad range of transportation areas, including transit, intelligent transportation systems, paratransit, geographic information systems, access management, transportation demand management, and safety. New major initiatives for FY 1996-97 include research into future transportation technologies such as alternative fuels, establishment of a national center focusing on research into elder transportation issues, and development of continuing education and distance learning programs.

CUTR’s continued success will be the result of a shared vision, a constantly-renewed dedication, a strong work ethic, and the belief that our research can result in change that will enhance all our lives. We look forward to another year of proving our worth to USF, the state, and nation.

Gary L. Brosch
Director, CUTR

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CUTR Research Program

National Urban Transit Institute
S. Polzin, G. Brosch

In 1991, a National Urban Transit Institute was established at CUTR by the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. From 1992-1997, the bill awards $1 million annually to a consortium of Florida universities that includes the University of South Florida, Florida A&M University, Florida State University, and Florida International University. Each university is conducting research projects to address issues critical to the transit industry as part of this program. Projects being conducted by CUTR in the third year of the program include:

- Improving Paratransit Productivity: Automatic Vehicle Locator Applications—assessed the potential benefits of AVL technology to determine whether paratransit providers would benefit from using AVL systems.
- Timing Considerations in Planning Major Transit Investment Projects—examined whether and when investment timing should be considered and how it might be considered in current processes.
- Conference on GIS in Transit—developed and produced a national conference addressing issues related to the use of geographic information systems in the transit industry.
- GIS as a Tool for Examining Environmental Equity Issues in Public Transportation—demonstrated how GIS can be applied to identify adverse impacts of transit on minority and low income populations.

Studies currently under way in the fourth year of the program include:

- Impacts of ADA on Public Transportation
- NPTS Travel Data Analysis
- Perspectives on the Future of Public Transport
- Opportunities for the Coordination of General Public Transit and School Bus Transportation
- Public Involvement Handbook for Transit Agencies
- Modeling Transit Captive and Choice Rider Behavior

Sponsoring Agency: U.S. Department of Transportation, Research and Special Programs Administration (RSPA)

RSPA Administrator Dr. Dave Sharma presents USF President Betty Castor & CUTR Director Gary Brosch with an award for the National Urban Transit Institute.
State Transportation Policy Initiative (STPI)

E. Mierzejewski

In response to the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, the Florida Governor's Office and the Florida Legislature requested in 1992 that CUTR conduct research to reevaluate the way transportation infrastructure and services are planned and developed at the state and local levels and to formulate options for implementing ISTEA requirements. STPI is a multi-phase study that addresses several important policy issues, including a comprehensive evaluation of the state and local level transportation planning processes as they relate to the implementation of Florida's growth management laws; an evaluation of the impact of community design on transportation; a study of transit, transportation demand management, level of service, and concurrency issues and of congestion management and urban mobility planning; and recommendations for a new strategic planning process for Florida that recognizes uncertainty. The comprehensive study resulted in 13 publications, which have received widespread distribution within the state and at the national level:

- "Trends and Forecast of Florida's Transportation Needs"
- "The Role of Level of Service Standards in Florida's Growth Management Goals"
- "Impact of Community Design on Transportation"
- "Transportation Costs of Urban Sprawl"
- "A Review of Mobile Source Air Quality Practices in Florida"
- "Transportation and Growth Management"
- "Moving People in Florida: Transit, TDM, and Congestion"
- "Transportation Planning for State Purposes"
- "Transportation, Land Use, and Sustainability"
- "Analysis of the Statewide Future Land Use Map"
- "Statewide Transportation Needs and Funding Study"
- "A New Strategic Urban Transportation Planning Process"
- "Planning, Zoning, and the Consistency Doctrine: The Florida Experience"

An Executive Summary and a video highlighting findings and recommendations were produced and widely distributed to legislators, transportation professionals, and policymakers throughout the state.

Sponsoring Agency: Florida Legislature

Guideway Transit and Intermodalism: Function and Effectiveness

S. Polzin, R. Shock

CUTR is engaged in a collaborative three-year project with the Lehman Center for Transportation Research at Florida International University in Miami to look at factors leading to successful implementation of intermodal guideway public transit systems. A major goal of this project is to provide a framework to aid transit agencies, local planning organizations, the Federal Transit Administration, state departments of transportation, and the transportation community in the planning, design, and implementation of such systems. The research effort is examining ways to facilitate intermodal connections, remove transfer barriers, and increase ridership for transit.

Several publications are being produced as part of the project. Six case studies have been prepared on urban area intermodal systems and facilities across the country, including:

- the San Francisco Bay area
- South Florida
- the Los Angeles Basin
- Atlanta
- Portland (OR)
- New Orleans

In addition, a series of data publications has been produced, as well as two research reports, "Guideway Transit and Intermodalism: Evaluation of Complementary Policies" and "Integrated Planning and Design of Intermodal Systems." A guidebook that addresses key factors in the planning and implementation of guideway and intermodal facilities will be produced in 1997.

Sponsoring Agency: Federal Transit Administration
Dade County Technical Assistance
J. Volinski, S. Polzin

In 1993, Metropolitan Dade County selected CUTR to address a variety of transportation problems. More than 25 task orders were completed, including:

Fare Cross-Elasticities—analyzed usage patterns and behavior motivations of monthly pass purchasers and developed fare cross-elasticities and forecasting methodologies.

Advanced Public Transportation Systems (APTS)—determined the applicability of intelligent transportation systems technologies to MDTA operations.

Joint Development Implementation
Support—reviewed joint development projects at U.S. transit properties and existing Dade County requests for proposals for joint development projects and produced a workshop.

Transportation Utility Fee (TUF) Feasibility Study—reviewed and assessed legal and economic implications of adopting a TUF in Dade County.

Pedestrian Promenade for Downtown Miami—studied promotion of increased public transportation use in downtown Miami and enhancement of pedestrian movements.

Metromover Extensions Transfer Analysis—addressed MDTA’s transfer and fare policy and recommended an equitable fare transfer policy.

MDTA On-Board Survey—surveyed MDTA passengers and analyzed results to provide ridership demographics and travel behavior characteristics.

Jitney Enforcement Strategies—analyzed strategies adopted at U.S. transit agencies to combat problems posed by illegal jitneys and private vans.

Special Transportation Service Brokerage—provided technical assistance to determine methods of paratransit trip distribution and balancing of cost, availability, and service quality issues.

Sponsoring Agency: Dade County

Performance Evaluation of Florida’s Transit Systems
J. Rey, V. Perk

As a result of Florida legislation requiring that FDOT and each transit system develop and report on transit system performance, CUTR conducted performance evaluations of Florida’s urban fixed-route transit systems using 1993 and 1994 data. Following five previous annual evaluations conducted by CUTR, these studies consisted of a trend analysis, in which performance indicators and measures for the previous six years were reviewed to determine how individual systems and the state as a whole have performed over time, and a peer analysis, in which performance measures of Florida’s transit systems were compared with similar systems across the country.

Sponsoring Agency: Florida Department of Transportation

Passenger Trips Per Revenue Mile
50-200 Motorbus Vehicle Category

Palm Beach
Pine Rock
Jacksonville
Norfolk
Orlando
Hampton
N. Kentucky
Hillsborough
Memphis
Broward
Charlotte
El Paso

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General Planning for Pinellas Suncoast Transit Authority
D. Hinebaugh

CUTR is performing general planning tasks related to Pinellas County Census data, specifically, the geographical representation of this data. This entails route analysis using Census data; bus stop inventory data collection, input and retrieval of data; and other planning tasks as requested by PSTA.

Sponsoring Agency: PSTA

PSTA System-Wide Ride-Check
D. Hinebaugh

As part of the PSTA’s Five-Year Transit Development Plan Update, CUTR collected ridership and schedule information for PSTA’s fixed route system and tabulated it for inclusion in a comprehensive report. This information included passenger activity, actual arrival time at each time point, scheduled arrival time at each time point, difference between scheduled and actual arrival times with notation of location, and reason for any delay.

Sponsoring Agency: Parsons Brinckerhoff

PSTA Bus Stop Inventory
D. Hinebaugh

CUTR conducted a bus stop inventory in an effort to develop a database file. This will enable PSTA to decide whether a particular paratransit trip can be made using a fully accessible fixed route service in lieu of paratransit service. The database also will assist in responding to customer inquiries as to the amenities and configuration of a particular bus stop. The database was created using geographic information, background road network, and jurisdictional boundaries. Color maps of the county including bus routes were provided.

Sponsoring Agency: PSTA

Florida Maintenance Training Program
R. Mathias, V. Zambito

In 1991, CUTR and the Florida Department of Transportation entered into a joint participation agreement to provide maintenance training resources to public transit agencies throughout Florida. Now in its fourth year, the project includes CUTR brokering the delivery of classroom and laboratory maintenance training for transit mechanics; maintaining a resource center; conducting advisory committee meetings; producing and distributing a quarterly newsletter, Transit Training, which provides information on maintenance training activities, training tips, and new training programs; and supervising and evaluating training sessions.

Sponsoring Agency: Florida Department of Transportation

Southeast Florida Regional Transit Fare Coordination Study
J. Volinski

The goal of this project was the recommendation of a long-range interagency fare agreement between Broward County Transit, Co-TRAN, Metro-Dade Transit Agency, and Tri-Rail—all south Florida transit operators. The project began with documentation of the fare policies and administration activities of participating agencies, an assessment of existing and potential interagency transit travel in South Florida, and an inventory of fare reciprocity arrangements in other metropolitan areas. Fare reciprocity alternatives were developed, critiqued, and presented to the participating transit representatives in a workshop. The final report included an implementation plan for the selected proposal.

Sponsoring Agency: Florida Legislature
Transit Development Plans  
D. Hinebaugh, J. Rey, R. Mathias, V. Perk, J. Hardin, L. Lachance, D. Rudge

CUTR has produced many transit development plans (TDPs), including those for LeeTran, the transit division of the Lee County Department of Public Services; Space Coast Area Transit in Brevard County; the Tri-County Commuter Rail Authority in Ft. Lauderdale; Winter Haven Urbanized Area; and the Florida counties of Manatee, Okaloosa, Hernando, Volusia, Bay, and Charlotte. A similar approach was followed in each of the plans, focusing on demographic and economic data; perceptions of the transit system held by key local officials, riders, and non-users; transit-related goals and objectives; an evaluation of existing services; an assessment of demand for transit and mobility needs within the community; identification and evaluation of future alternatives for the transit system; and a prioritized list of recommendations. Although the approach was similar in all TDPs, the findings and recommendations differed considerably by system. For example, key recommendations for LeeTran included a vehicle replacement program and a pilot program to increase frequency of service on selected routes. For Space Coast Area Transit, it was recommended that the existing mix of services be maintained but that the agency be willing to provide different types of service to different areas of the county.

Sponsoring Agencies: Lee County; Brevard County; Tri-County Commuter Rail Authority; Manatee County; Okaloosa County; Hernando County; Volusia County; Bay County; Charlotte County; City of Winter Haven

Lessons Learned in Transit Efficiencies, Savings, and Revenue  
J. Volinski

This project identified the methods transit agencies in North America are using to reduce costs and generate new revenues without losing customers. This information is increasingly important during these times of federal cutbacks and resistance to new taxes. A report was produced that was distributed to transit agencies throughout the U.S.

Sponsoring Agency: Florida Legislature

Measuring Transit Performance in Florida: An Indexing Approach  
X. Chu

Transit performance is measured largely for two purposes: transit systems measure it to diagnose and correct problems that limit their efficiency and effectiveness; auditing agencies measure it to track the performance of transit systems they audit. Multiple indicators that are used present a variety of problems, including failure to provide a single measure to track transit performance. In this project, a methodology for measuring transit performance in Florida was developed that overcomes these drawbacks of multiple indicators.

Sponsoring Agency: Florida Legislature

Deerfield Beach Transit Options  
E. Hill, J. Volinski

Solving the problem of limited access from the mainland to the beaches in the City of Deerfield Beach was the focus of this project. A statewide survey of Florida beach communities was conducted, and an evaluation of existing transportation capacity and demand for City of Deerfield Beach beaches was made. Transit service options that mitigate traffic to the beaches and help meet travel demands were developed. Service options, costs, and financing options were evaluated, and the final report offered improvement options to the City of Deerfield Beach and generalized findings applicable to other barrier island communities in Florida.

Sponsoring Agencies: City of Deerfield Beach, Florida Legislature

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*Projected
1994 Tri-Rail On-Board Survey & Analysis
J. Rey, M. Baltes

CUTR designed and administered a third on-board survey of Tri-County Commuter Rail Authority (Tri-Rail) passengers and performed an analysis of the results. The purpose of the survey was to ascertain demographics, travel behavior, and the satisfaction of the users with the system service. CUTR began with review and refinement of the survey instrument. After the survey was administered, the data were coded and entered, then processed, reviewed, and analyzed. Finally, results were compared with 1991 and 1993 survey results and a final report was completed.

Sponsoring Agency: Tri-County Commuter Rail Authority

LYNX On-Board Survey
J. Rey, M. Baltes

This research effort implemented and analyzed the results of the on-board survey of Central Florida Regional Transportation Authority (LYNX) passengers. The point of the on-board survey was to ascertain demographics, travel behavior, and the satisfaction of the users with the service provided by the system on preselected routes. Identification of these characteristics of passengers will contribute to existing and future planning efforts of the system. A final report detailing the methodology and findings of the survey effort was produced and provided to LYNX staff for review.

Sponsoring Agency: Central Florida Regional Transportation Authority

Data Assistance for LYNX's 1996 TDP Update
J. Rey, M. Baltes

The purpose of this project was to assist LYNX Transit with the updating of the system's state-required transit development plan for 1996 by providing necessary Census, Section 15, and other related data. This constituted obtaining and documenting, in a tabular format, information on the major private transportation providers including fixed route service and demand response service, taxi, etc., in the LYNX area. CUTR also illustrated in map format the 1995 population and employment densities by census tracts.

Sponsoring Agency: Central Florida Regional Transportation Authority

Space Coast Area Transit Trip Priorities and Eligibility Workshop
R. Mathias

The goals of this workshop were to allow all of the Local Coordinating Board (LCB) members to hear the possibilities related to the type of demand management tools that exist; hear the legal possibilities that the

Florida Statutes and Administrative Code allow; and understand the techniques to manage the system and the current users of the system and how enaunty parameters might impact the current services. An effort was made to reach a consensus on the desired direction, and a written account of the workshop was presented to the Board of County Commissioners, the Florida TD commission, and other CTCs around the state for reference.

Sponsoring Agency: Space Coast Area Transit

Hillsborough County-Wide Data Collection and Analysis
D. Hinebaugh

In this research effort, CUTR acted as a subcontractor in assisting Tindale-Oliver and the Hillsborough County Metropolitan Planning Organization in identifying, collecting, and analyzing data required by Federal (ISTEA) and State regulations. This entailed research and documentation and data collection on or off the State Highway System and/or use of existing data, including automated traffic counts, vehicle classification counts, vehicle accident records, and transportation surveys and questionnaires, as well as roadway and transit characteristics.

Sponsoring Agency: Tindale-Oliver and Associates, Inc.
Geographic Information Systems (GIS) Applications in Transit Planning and Analysis

W. Ball

To help Florida’s transportation planning organizations realize the full potential of GIS, CUTR researched GIS applications in transit planning and analysis. Work included the identification of national applications of GIS in transit planning, and an inventory of transportation-related GIS systems, databases, and applications in Florida was made. GIS applications to transit planning were documented, and those with value for Florida’s transit systems were recommended by CUTR for pursuit in more detail. Applications chosen by FDOT will be pursued and developed by CUTR.

Sponsoring Agency: Florida Department of Transportation

Florida Intrastate Highway System Decision Support System

R. Stasiak

This project encompasses the further development of a computer Decision Support System (DSS) to prioritize highway projects and to draw maps. CUTR is using Geographic Information Systems (GIS) technology to determine and code geographic locations and enhance this system to allow operation on lower powered computer systems while adding the capability of managing encapsulated plotting data as it makes other calculations. CUTR will also install the system, prepare revised versions of all DSS documentation, and provide training in each of the FDOT District Offices.

Sponsoring Agency: Florida Department of Transportation

National Conference on GIS in Transit

R. Sheck, W. Ball

CUTR hosted the first National Conference on GIS in Transit in Tampa on August 13-15, 1995, which brought together participants from the transit community, planning agencies, federal and state governments, academic institutions, and the software industry. The conference included presentations, panels, workshops, and vendor demonstrations and provided an interactive format for the 150 attendees from across the country to focus on GIS applications to improve the cost effectiveness of transit system planning, management, operations and marketing. The published conference proceedings include a series of case studies and an annotated bibliography on GIS applications in transit.

Sponsoring Agency: American Public Transit Association

American Public Transit Association (APTA) Member Survey

F. Cleland

APTA asked CUTR to conduct a survey of its members to determine their attitudes and opinions about APTA’s programs, activities, and functions. Data collected from the survey helped to determine what programs and functions needed to be added and which should be modified, continued, and/or discontinued. A presentation of the findings and recommendations was made at APTA’s conference in Reno.

Sponsoring Agency: American Public Transit Association

ECAT Transit Network & Transit Dependent Tracts
Key West Service Plan for South Roosevelt Boulevard Bus Route
D. Hinebaugh

In the City of Key West Transit Development Plan, CUTR recommended a transit route that would connect Old Town and Key West International Airport and serve hotels along the route. This project involved the investigation and design of such a route. CUTR began with site visits to examine and discuss various routing options and interviews with city, county, hotel/motel, and airport representatives. CUTR proposed and designed a route along South Roosevelt Boulevard. Bus stops, shelters, service frequency, use of existing bus fleet, load factors related to vehicle capacity, connection to existing transit service, coordination with airline schedules, fare policy, marketing strategies, and estimated operating costs were all considered. An implementation schedule was also included.

Sponsoring Agencies: City of Key West, Florida Department of Transportation

Key West Park-n-Ride Project
D. Hinebaugh

In cooperation with Tindle-Oliver and Associates, Inc., CUTR reviewed and coordinated plans for the proposed transit shuttle services from the Grinnell/Caroline parking facility to the Old Town area. This review included refining operating costs for the proposed shuttle service and assuring coordination of its service and fares with existing Key West Department of Transportation (KWDOT) routes and between KWDOT and private operators. Additionally, operational considerations were reassessed to enhance the attractiveness of the system to residents, employees, and tourists.

Sponsoring Agency: City of Key West

Palm Beach County MPO Year 2015 Long Range Transportation Plan Update
D. Hinebaugh

The primary objective of this project is to identify the transit needs and meet the transit demand of Palm Beach County to prepare and verify various transit goals, strategies, and requirements in the year 2015 with and without financial constraints. This is being coordinated with the MPO’s approved set of goals, objectives, and policies. In the accomplishment of this, CUTR is acting as subconsultant to Leftwich Consulting Engineers, Inc.

Sponsoring Agency: Leftwich Consulting Engineers, Inc.

Volusia County 2020 Long Range Plan Update
D. Hinebaugh

CUTR staff worked as team members in the development of the 2020 Long Range Transportation Plan Update for Volusia County. CUTR’s involvement on the project focused on the analysis of land use related to transit usage, evaluation of model runs estimating transit ridership, future bus route development, and participation in the public involvement process.

Sponsoring Agency: Tindle-Oliver and Associates, Inc.
Birmingham Area Rideshare Program Evaluation
P. Winters, D. Rudge

The Alabama Department of Transportation (ALDOT) has identified "full service" rideshare activities as a high priority in managing congestion and reducing air pollution in the region. CUTR conducted interviews to evaluate historic and current activities leading to the development of an analysis of potential improvements to the ridesharing program in the Birmingham area. Based upon this analysis, recommendations on program activities that will satisfy demand estimates, including personnel and budget items, were made.


"Design and Application of TDM Techniques Including Telecommuting" Training
P. Winters, D. Rudge

This project offers training to individuals in the public and private sectors who are responsible for implementing TDM and/or telecommuting projects. This will be achieved through the development and presentation of two courses: a three-day course that focuses on the development, design, operation and evaluation of TDM programs for the public and private sectors; and a one-day course that focuses on the development and implementation of a telecommuting plan on a worksite basis as an employer/employee program.

Sponsoring Agencies: National Highway Institute and Federal Highway Administration

P. Winters, F. Cleland, D. Rudge

To assist Florida's commuter assistance program (CAP), CUTR is developing a CAP Evaluation Manual. Included are a literature review, interviews with representative from other states, reviews of available policy and implementation options, and definitions of quantitative and qualitative measures of effectiveness in CAP programs.

Sponsoring Agency: Florida Department of Education

Illegal Passing of School Buses
M. Baltes

In response to the growing danger to public school children regarding private motorists who do not stop for stopped school buses with stop-arms extended and red lights flashing, CUTR devised a research method to document occurrences and other information including time of occurrence, number of students, type and direction of vehicle, urban or rural locale, paved or unpaved roadway, and whether the white roof-mounted strobe light was in use at the time of the pass. The findings resulted in a number of recommendations to be utilized as countermeasures.

Sponsoring Agency: Florida Department of Education

Fund Allocation for Florida's Pupil Transportation
M. Baltes

An in-depth review and assessment of the formula used to allocate funds for student transportation in Florida was conducted. Numerous analyses to attain a better funding formula were conducted, and a mathematical non-linear, regression-based allocation model was selected. Revisions to Subsection 41 of FS 236.082 were proposed that incorporate the new formula. Recommendations were made to consider improved data collection and the implementation of a statewide automatic transportation routing system.

Sponsoring Agency: Florida Department of Education

Florida Pupil Transportation Expenditures

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Neural Network Technology Application for Employer Trip Reduction
P. Winters, R. Perez, M. Pietrzyk, F. Cleland

This project applies research to develop neural network technology to streamline the development of Congestion Management Systems (CMS) plans and trip reduction plans for MPOs, employers, and developers and provides a basis for consistent review by the regulating agencies. This application is expected to improve cost-effectiveness of trip reduction programs and reduce administrative costs.

Sponsoring Agency: Florida Department of Transportation

FDOT Performance Evaluation
F. Cleland, E. Mierzewski

This study was commissioned by the Florida Transportation Commission to measure the performance of the FDOT through a mail survey of clients, vendors, and partners. Information requested on the survey included respondent activity and satisfaction with FDOT. Responses were analyzed by FDOT district and by respondent type. The results of the evaluation were presented to the FTC’s Working Group on Performance Measures, and were used in the FTC’s year-end evaluation of FDOT.

Sponsoring Agency: Florida Transportation Commission

Transportation Demand Management Clearinghouse
D. Rudge, P. Winters

FDOT and the Florida Energy Office contracted with CUTR in 1991 to establish the TDM Clearinghouse, a service developed to foster the development of effective transportation demand management programs around the state. Now in its fifth year, activities include maintenance of a resource center of TDM materials; production of a national newsletter, the TMA Clearinghouse Quarterly; provision of technical assistance to a variety of agencies; and educational outreach.

Sponsoring Agency: Florida Department of Transportation

Telecommuting: Moving Information as Well as Vehicles
P. Winters, R. Pendyala

To meet the goals of reducing traffic congestion and air pollution, decreasing overhead expenses, improving productivity, and enhancing employee job satisfaction, the use of telecommuting must be integrated with business objectives. This research project assessed and quantified the transportation impacts of telecommuting by means of identifying business needs, conducting a baseline assessment, surveying and interviewing telecommuters and their supervisors, and measuring the results.

Sponsoring Agency: Florida Legislature

High Occupancy Vehicle Marketing and Positioning Research Study
P. Winters, F. Cleland

This project is a component of an HOV Marketing/Education and Enforcement Plan for South Florida. Based on results from a comprehensive survey, recommendations were made regarding generating awareness, educating the public on the benefits of ridesharing, removing barriers such as perceived enforcement problems, and targeting efforts towards groups identified as those who are most likely to benefit from and use HOV lanes.

Sponsoring Agencies: Florida Department of Transportation, Gold Coast Commuter Services
Transportation Demand Management Certification
P. Winters, D. Rudge

This program provides intensive training in TDM to state and local decisionmakers, employers, developers, and others to facilitate the implementation of TDM across the state. CUTR researched existing TDM training programs throughout the U.S., developed an intensive curriculum and training materials, and offered the course at locations across the state.

Sponsoring Agency: Florida Department of Transportation

Transportation Demand Management in Virginia
P. Winters, D. Rudge

This project consisted of the design and presentation of a training course entitled “Making TDM Work in Your Community,” which focused on the development, design, operation and evaluation of TDM programs. The two-day course was designed to assist individuals in the public and private sectors responsible for implementing TDM projects.

Sponsoring Agency: Virginia DOT

University Commuter Center
P. Winters, S. Hendricks

In an effort to reduce single-occupant vehicle (SOV) travel to improve air quality, CUTR is working to establish a University Commuter Center. The Center likely will promote alternatives such as using bus service, ridesharing, bicycling, and walking. Initially, the Center is assisting with the identification of commute options; processing applications for carpool matchlists; preparing and distributing orientation packets; and preparing information materials to promote the Center’s objectives.

Sponsoring Agency: Florida Department of Transportation

University North Transportation Initiative
S. Hendricks

To address air quality, growth management, traffic congestion, and safety issues in the rapidly developing area in Tampa known as University North, a public/private partnership called University North Transportation Initiative (UNTI) has been developed. UNTI is identifying transportation problems in the area and has developed a forum for public/private dialogue among community and business representatives. Strategies considered for increasing area mobility include improving transit service to the USF campus and other area destinations, employing strategies such as telecommuting and staggered work and class hours, arranging ridesharing opportunities, and providing a safer environment for biking and walking.

Sponsoring Agencies: Florida Department of Transportation, City of Tampa, Hillsborough County, USF

St. Lucie County Bicycle and Pedestrian Plan
S. Hendricks

CUTR served as a subcontractor to Sprinkle Consulting Engineers, Inc., in the preparation of a Bicycle/Pedestrian Plan for St. Lucie County. Existing plans and policies affecting bicyclists and pedestrians were inventoried, and potential project funding sources were investigated. Estimates of current bicycle/pedestrian usage were provided, bicycle/pedestrian crash data were analyzed, and recommendations for plan implementation were made.

Sponsoring Agency: Sprinkle Consulting Engineers, Inc.

Total Employees by Company Size
University North Area

<table>
<thead>
<tr>
<th>No. of Employees*</th>
<th>No. of Companies</th>
<th>Total Companies</th>
<th>No. of Commuters</th>
<th>% Total Commuters</th>
<th>Cumulative Total %</th>
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*Includes USF employees and student commuters. All others are employees only.
Source: American Business Lists, May 1994

1995-1996 Annual Report 19
Hillsborough County MPO Transportation Disadvantaged Five-Year Plan
R. Mathias

CUTR assisted with the analysis of the consumer choice options for providing specialized transportation service, and reviewed the potential for providing back-up transportation service. CUTR also evaluated fare/pricing structure strategies available to the CTC as part of the Transportation Disadvantaged (TD) five-year plan. CUTR will present its findings at two LCB meetings, and a final report will be provided to the MPO.

Sponsoring Agency: Hillsborough County Metropolitan Planning Organization

Transportation Disadvantaged Research
R. Mathias, S. Maas, P. Turner

CUTR has undertaken a diverse set of projects that consists of setting up an MIS system using the Florida Department of Education’s FIRM Internet utilities and training participants to use these systems, studying school bus utilization by Community Transportation Coordinators (CTCs), and studying the use of volunteers by CTCs.

Sponsoring Agency: Florida Commission for the Transportation Disadvantaged

Rural Transit Assistance Program Trainers Network
R. Mathias

CUTR has developed a network of 27 trainers qualified to teach the Rider Sensitivity and Assistance Methods (RSAM) course, developed by the Ketron Division of The Bionetics Corp. The course covers techniques for safely assisting passengers with disabilities and senior citizens including classroom and hands-on instruction, as well as opportunities to teach segments of the course to ensure adequate understanding of the materials. In return, the trainers are expected to teach the RSAM course at least twice during the year and to provide back-up assistance to fellow trainers in the statewide training network.

Sponsoring Agency: Florida Commission for the Transportation Disadvantaged

Transportation Options for Seniors Who Are Unable to Drive: Use of Golf Carts and Scooters
R. Mathias

The primary focus of this project is the collection and analysis of background information pertaining to the use of golf carts and three- or four-wheel scooters by senior citizens. The goal is to gain an understanding of the conditions under which these vehicles are operated through review of relevant laws, ordinances, and/or rules governing their use to determine how and why each of these modes is chosen. Of particular interest is the use of these devices as a substitute for automobiles.

Sponsoring Agency: University of South Florida Foundation-Institute on Aging
Americans with Disabilities Act (ADA) Technical Services

R. Mathias

CUTR provides staff assistance to state and local entities needing technical assistance in areas related to the ADA, including recommendations and assistance on ways to solve conflict and interpretation among consumers, providers, and advocates. It also will result in guideline development for Community Transportation Coordinators and transit agencies on how to develop an ongoing public participation process that involves communications with people with disabilities.

Sponsoring Agency: Multisystems, Inc.

Passenger Assistance Training

R. Mathias

To help transportation managers and operators improve safety and customer relations among elder patrons and passengers with disabilities, CUTR conducted three passenger assistance and sensitivity training workshops using Transportation Management Associates’ Passenger Assistance Techniques course. Each workshop offered students classroom and practical experience and resulted in a TMA course completion certificate, uniform insignia, and wallet identification card.

Sponsoring Agency: Florida Department of Transportation

Florida Community Opportunity Partnership Center (FCOPC)

K. Williams

Through its partnership with the FCOPC, CUTR has worked to strengthen economic opportunities in disadvantaged minority neighborhoods through technical assistance and outreach on transportation and development planning issues. CUTR spearheaded the development of a neighborhood plan for the Union Academy neighborhood in Tarpon Springs. Early establishment of a residents’ planning committee and a continuing commitment by CUTR has helped unite and empower the residents to devise solutions to neighborhood problems.

Sponsoring Agency: U.S. Department of Housing and Urban Development

Paratransit Productivity Enhancement Through Service Simulation

S. Polzin

This research effort is designed to develop a simulation capability for use as an evaluation tool for paratransit service delivery characteristics and policies. This involves developing a multi-step process using an urban land use and transportation network model as a starting point to determine demand levels. This demand model then will be coupled with a service delivery model. The performance of the system will be evaluated to report service performance results.

Sponsoring Agency: Florida Department of Transportation

Development of Assistance Techniques for Passengers with Service Animals

R. Mathias

CUTR is researching information on training programs and current practices of the assistance provided by vehicle operators to passengers with disabilities using service (assistance) animals such as guide dogs. This includes working with transit systems, paratransit providers, vehicle operators, service animal users, service animal training schools, and paratransit training professionals to develop “best practice” policies and procedures for transporting and assisting passengers with service animals. Resulting materials will be widely distributed.

Sponsoring Agency: Project ACTION/National Easter Seal Society

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Access Management Advisory Services
K. Williams, M. Marshall

CUTR was retained by the Florida Department of Transportation to provide expert advice on access management standards and policies on a task order basis. Services included technical assistance on application of access management standards, advice on access cases going to administrative hearing, and review of access permit denials for complex cases. CUTR also prepared issue papers on median retrofit actions and public involvement for median projects, as well as guidelines and training for involving the public and managing requests for deviations from median opening standards.

Sponsoring Agency: Florida Department of Transportation

Land Development Regulations that Promote Access Management
K. Williams

This NCHRP Synthesis Report (#233) addresses techniques for integrating access management into the local land development process. The synthesis focuses on land development regulations that support access management principles, comprehensive planning considerations, and state and provincial policies that affect local access management practice. It includes case studies on successful access management programs and an analysis of legal considerations in access control.

Sponsoring Agency: Transportation Research Board

Corridor Management Handbook
K. Williams, M. Marshall

This study reviewed best practices on corridor management and synthesized the information into a comprehensive handbook on right-of-way preservation and access management techniques. It draws from practices in Florida and other states, including the findings and recommendations of the recent FDOT study on corridor management. The guidebook includes brief summaries of corridor management techniques, funding alternatives, legal issues, and case studies of successful programs.

Sponsoring Agency: Florida Legislature

Right-of-Way Preservation Policies, Activities, and Strategies
K. Williams

To assist a local transportation consulting firm in devising a strategy to strengthen the right-of-way preservation programs of Pasco, Pinellas, and Hernando counties, CUTR conducted a review of legislation and case law regarding right-of-way protection in Florida, as well as a review of current local practices in Florida and other states. A final technical memorandum was prepared.

Sponsoring Agency: Tindale-Oliver and Associates, Inc.

Access Management Support to Local Government
K. Williams

This project disseminates information contained in CUTR’s “Model Land Development and Subdivision Regulations That Support Access Management.” CUTR refined and expanded the training materials used to educate local governments and conducted specific local government case studies. Several half-day regional workshops were conducted for local governments, MPOs, and others on land development regulations that relate to access management.

Sponsoring Agency: Florida Department of Transportation

Cost Effectiveness of Mobile Source Air Pollution Control Strategies
E. Mierzejewski

CUTR examined the cost effectiveness of motor vehicle inspection programs (MVIP) as an air pollution control measure. Case studies were conducted, based on the specific characteristics of Hillsborough County. Data were assembled reflecting tripmaking characteristics in Hillsborough County, as well as background materials on the characteristics of various MVIP technologies. Estimates were made of the cost effectiveness of various MVIP alternatives. These were compared to the cost effectiveness of alternative transportation control measures.

Sponsoring Agency: Florida Legislature
Metro-Dade County Intelligent Transportation System Comprehensive Plan
M. Pietrzyk, M. Burris

The primary objective of this project was to develop an ITS Comprehensive Plan for the Metro-Dade MPO that coordinates and integrates short-term and long-term ITS activities conducted by state and local agencies. The MPO's purpose for developing an ITS Comprehensive Plan is to provide general policy planning in the area of ITS, act as the Dade County leading public agency in this regard, and, most importantly, create a means for education and accountability for ITS investment to the general public. General responsibilities for all transportation agencies regarding ITS development and deployment were identified, along with a list of high priority ITS projects.
Sponsoring Agency: Metro-Dade MPO

Lee County Congestion Pricing Program
M. Pietrzyk

As part of an FHWA Congestion Pricing Pilot Program grant awarded to Lee County, CUTR will assist the county's transportation department in development of an areawide congestion pricing program for three area toll bridges. CUTR's role will include independent review and assessment of pricing scenarios developed by others and preparation of a concept plan and lane configuration for installation of an electronic toll collection system for the three bridges and perhaps other non-tolled facilities.
Sponsoring Agency: Lee County DOT

ITS Applications to Congestion Management
M. Pietrzyk, M. Burris

CUTR investigated and field demonstrated automated technologies for use in monitoring traffic congestion and obtaining transportation planning data. Using a video-based technology to perform a license plate Origin/Destination and travel time study proved less costly and time consuming than traditional license plate survey methods. Collection of Average Vehicle Occupancies using video also proved highly effective and cost efficient.
Sponsoring Agency: Florida Legislature

Frequency Spectrum Surveys for the Florida Turnpike's SunPass Program
M. Pietrzyk

CUTR conducted field measurements at 30 FDOT-designated sites along the existing Florida Turnpike system. The spectrum survey performed a frequency sweep for the three ISM bands, and a hard copy of each frequency sweep for each site was provided. CUTR and the USF Electrical Engineering Department developed a logistics plan and organized and trained two two-man field survey teams. Field mea-
Florida Vehicle Procurement Program
M. Crittenden, R. Mathias

This program will provide public transportation agencies with technical assistance and guidelines for vehicle procurement and provide public transportation agencies with an opportunity to procure certain transit vehicles at lower prices. Goals include organization and administration of statewide group procurement of certain transit vehicles, assisting in development of vehicle specifications for all types of transit vehicles, and providing technical assistance to individual transit agencies throughout the procurement process.

Sponsoring Agency: Florida Department of Transportation

Alternative Fuels Implementation Plan for Pinellas County
M. Pietrzyk

To help Pinellas County maintain conformity with the requirements of the 1990 Clean Air Act, CUTR developed an action plan for implementing an alternative fuels program for the Pinellas Suncoast Transit Authority (PSTA). Specifically, the plan facilitated both the fleet purchase/conversion and clean air maintenance requirements. Steps involved in preparing the plan included presenting research and findings to an oversight committee and fielding reactions from various groups, identifying the trends of air pollutants that are the focus of reduction efforts, conducting a nationwide survey of alternative fuel research efforts, and evaluating the advantages and disadvantages of each fuel type.

Sponsoring Agency: Pinellas County

Alternative Fuels Information and Training Center
J. Bradley

In 1994 CUTR established the Alternative Fuels (AF) Center to bridge the knowledge gap regarding alternative fuel vehicles (AFVs)—those using propane, compressed natural gas (CNG), liquefied natural gas (LNG), methanol, ethanol, and electricity. The Center provides technical assistance, answers questions regarding AFVs, hosts workshops, maintains a library of AFV-related information, and publishes a quarterly newsletter.

Sponsoring Agency: Florida Department of Community Affairs-Florida Energy Office

Florida Suncoast Clean Cities Coalition
J. Bradley

At the request of the Florida Energy Office, CUTR assembled and continues to provide technical support for a Clean Cities Coalition for the Suncoast area of West Central Florida (Hillsborough, Manatee, Pasco, Pinellas, Polk and Sarasota counties). The purpose of the Coalition is to expand and accelerate the use of alternative fuel vehicles in urban areas. Tasks included recruiting members from among government representatives, fuel suppliers, conversion companies, local businesses, fleet operators, and elected representatives; organizing planning meetings; recruiting working group members; developing coalition documents such as a program plan; investigating funding opportunities; and preparing grant applications.

Sponsoring Agency: Florida Department of Transportation

Intrastate Air Service Feasibility Study
R. Statak, S. Maas

CUTR studied issues that determine the need for and economic feasibility of commercial air service. The current condition of commercial air service and airport facilities was assessed, and community and service area data were assessed for information on air taxi and commuter air service operations. Factors affecting demand were evaluated. The final report, a handbook, provides guidelines that can be applied to a community's specific air service development criteria and can serve as marketing, promotional, and planning tools.

Sponsoring Agency: Florida Department of Transportation
Economic and Mobility Impact of the Orlando-Orange County Expressway System

M. Pietrzyk

CUTR performed an economic analysis of the role that toll facilities have played and will continue to play in assuring the continued economic prosperity of the greater Orlando area. CUTR determined the savings to the public generated by the expressway system, actual and potential property values, employment and tax base generated by development in service areas, and the importance of the expressway system to the Orlando regional transportation system, in particular the Interstate-4 Master Plan.

Sponsoring Agency: Orlando-Orange County Expressway Authority

Sensor Warning System for Alliant Defense Electronic Systems

M. Pietrzyk, M. Burrus

Alliant Defense Electronic Systems, a defense contractor with over 25 years' experience in millimeter-wave (MMW) radar systems, retained CUTR to examine the state of the art in advanced crash avoidance systems. CUTR examined the commercial market area potential for this type of technology, and, through focus groups, defined system parameters for their proposed crash avoidance device.

Sponsoring Agency: Alliant Defense Electronic Systems

Pavement Management Systems for Local Governments

M. Pietrzyk

In the future, FDOT may require the establishment of local pavement management systems (PMS) as a prerequisite to acquiring state roadway matching funds. To prepare small municipal governments in Florida, CUTR developed an informational brochure that described how pavement management systems can be implemented and "customized" for a municipality's specific needs.

Sponsoring Agency: Florida Legislature

Value Conflict Tables for Florida-Based Traffic Crashes

M. Pietrzyk, M. Burrus

In an effort to resolve the anticipated consequences of hazardous conditions, a series of expected accident values for intersections that reflect conditions in Florida was developed. CUTR surveyed approximately 180 intersections throughout a six-county area surrounding Tampa Bay to observe the frequency of traffic conflicts and develop the relationships (by intersection type, laneage, geographic area, etc.) between conflicts and the frequency of traffic accidents.

Previously established federal/national conflict value tables were modified to reflect Florida conditions.

Sponsoring Agency: Florida Department of Transportation, Safety Office

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Pavement Life Cycle

- Excellent
- Good (40% drop in quality)
- Fair (75% of life)
- Poor (40% drop in quality)
- Very Poor (12% of life)
- Failed

$1.00 for renovation here
Will cost $4.00 to $5.00 here
Valuation of Travel Time Savings and Predictability in Congested Conditions for Highway User-Cost Estimation

X. Chu

The focus of this study was to design a survey sampling methodology to collect stated-preference data of personal travel and the value of travel-time savings and predictability as they apply to freight shippers. All research was conducted in and near the Route 91 corridor in Southern California. CUTR summarized the available data, relationships, and quantitative values that have been produced in both previous and on-going research. A review of theory on congestion effects and how it can influence the value of time and the value of travel time predictability was conducted.

*Sponsoring Agency: Hickling Lewis Brod, Inc.*

Florida Advanced Public Transportation Systems Concepts

E. Hill

The objective of this research was to identify Florida transit systems that are willing to serve as potential operational tests under the Federal Transit Administration’s Operational Test Program. FTA is currently focusing its research efforts in this area and is interested in funding an operational test at a site in Florida. Operational tests serve as the transition between research and development and full scale deployment of APTS technologies. The tests permit an evaluation of how well newly developed technologies perform under real operating conditions and assess the benefits and public support for the project or system.

*Sponsoring Agency: Florida Legislature*

Fuel Intake Monitoring System

M. Pietrzyk, M. Burris

In partnership with Lockheed-Martin Specialty Components and USF’s Technology Deployment Center, CUTR will assist in developing an inductive coupling system prototype to automatically control and monitor fuel consumption at individual pump islands for Shell Europe. CUTR’s primary role is to document the magnitude and extent of potential sources of electromagnetic interference at typical urban, suburban, and rural refueling environments.

*Sponsoring Agency: USF Technology Deployment Center*
Florida Transportation Almanac/Atlas
P. Henderson, R. Sasiak, M. Baltes

To help fulfill its mandate of serving as an information resource to agencies and organizations in Florida, CUTR produced the first Florida Transportation Almanac in 1995. The publication contains a variety of transportation and related information for use by both the public and private sectors and includes state and modal statistics, demographics, travel behavior characteristics and trends, information on state funding, spending, and legislation, directories of government officials and organizations, and a variety of maps. The Almanac was updated in 1996, the Florida Transportation Atlas was added, and both were produced on CD-ROM.

Sponsoring Agency: Florida Legislature

Driver Population Factors in Determining Highway Capacity
M. Pietrzyk

The goal of this project is to construct a mathematical model that relates observed saturation flow rates to known facility and traffic conditions. To accomplish this, CUTR is reviewing technical literature and available data sources, estimating non-commuter traffic, preparing detailed experimental designs, implementing research design, and preparing a final report that fully documents the project activities. The final report will be targeted to an audience of technical practitioners familiar with the methods of the Highway Capacity Manual.

Sponsoring Agency: Florida Department of Transportation

Technical Support to Rails-to-Trails Conference
S. Maas

At the request of the director and host committee of the Rails-to-Trails Conservancy and the Florida Department of Transportation, CUTR supported the Fifth National Rails-to-Trails Conference held in Clearwater in November 1995. Assistance included staff support for logistical arrangements, participation in conference activities, and production of conference proceedings.

Sponsoring Agency: Florida Legislature

African-American Mobility Symposium
B. Ward, E. Hill

CUTR, USF, and the Florida Department of Transportation presented a symposium on African-American Mobility issues in 1994, 1995, and 1996 in Tampa to examine the problems and issues related to mobility needs in African-American communities. Each symposium featured speakers and experts from across the United States. Emphasized was the importance of including the unique socioeconomic and cultural experiences of the African-American community in the shaping of transportation policy. An open discussion on the Intermodal Surface Transportation Efficiency Act of 1991 was part of each program.

Sponsoring Agencies: Florida Legislature, University of South Florida, Florida Department of Transportation
Education Program

Contributing to the education of future transportation professionals has been a primary goal of CUTR since its establishment. By working closely with student assistants on research projects and with student organizations and serving as thesis advisers, assisting students with job placement, teaching and coordinating an interdisciplinary transportation program at USF, CUTR faculty are dedicated to the professional and educational development of students in the College of Engineering and throughout USF. CUTR is committed to assisting the state in training Florida's brightest students for successful careers in transportation for the benefit of the citizens of Florida and the nation.

In 1995-96, positions as research assistants were awarded to 29 graduate and undergraduate students from a variety of disciplines. Their skills in research, writing, statistical analysis, database management, and graphics are an important contribution to CUTR's research program. In addition, students are provided with encouragement and assistance in co-authoring papers with CUTR faculty, attending and making presentations at conferences, and maintaining involvement in professional organizations.

The Graduate Interdisciplinary Transportation Program for students in Civil Engineering, Economics, and Public Administration welcomed its first students in Fall Semester 1995. Students in the program enrolled in a common set of core courses to allow them to acquire expertise in all three disciplines. CUTR also welcomed eight Fellows of the Southeastern Transportation Consortium and two Fellows of the International Road Federation.

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<th>1995-1996 Student Research Assistants</th>
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<tr>
<td>Efrain Areizaga</td>
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<td>Public Administration</td>
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<td>Lisa Argyr</td>
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<td>Interdisciplinary Education</td>
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<td>Chris Billingsley</td>
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<td>Shannon Bliss</td>
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<td>Baichan Chen</td>
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<td>Tonya Hepburn</td>
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<td>Weimin Huang</td>
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<td>Conrad Jordan</td>
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<td>Visla McKale</td>
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<td>Sai Mallena</td>
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<td>Mark Mistrutta</td>
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<td>Srikant Rachakonda</td>
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<td>Sheryl Stire</td>
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<td>Sujeeva (Anu) Weerasuriya</td>
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<td>Jason Winoker</td>
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Left to Right: Hepburn, Argyr, Billingsley, Bliss, Areizaga, Mallena, Weerasuriya, Gillett, Huang, Rachakonda, Gomez, Mistrutta.
CUTR Faculty and Staff

Gary L. Brosch
Director. MS, Economics, Florida State University, 1973; BS, Economics, University of South Florida, 1971.
Specialties: urban community economic analysis, innovative financing, urban mobility, transportation innovations.

John Lott Brown

Glenn A. Burdick
Dean Emeritus. PhD, Massachusetts Institute of Technology. Specialties: electrical aspects of transportation, transportation safety, accident reconstruction, electromagnetic field theory.

Francis A. Cleland
Research Associate. MBA, Rice University, 1987; BA, Managerial Studies, 1986.
Specialties: survey design and analysis, statistical modeling techniques, survey sampling methods, transportation demand management, public transportation.

Anthony Arenas

Mike Crittenden
Research Associate. BS, Sociology, Alabama State University, 1979.
Specialties: transportation and logistics management, maintenance management, administrative and human resource management.

Michael R. Baltes
Research Associate. MPA, Organization Management Theory, University of South Florida, 1992; BS, Political Science, University of South Florida, 1989.
Specialties: policy analysis, transportation economics, student transportation, statistical analysis, survey design and analysis, safety.

Mark Burris
Research Associate. MSCE, Transportation Engineering, University of New Brunswick, Canada; BSCE, Technical University of Nova Scotia, Canada. Specialties: computer simulation modeling, crash avoidance systems, intelligent transportation systems, transportation-engineering policy and planning.

Xuehao Chu
Research Associate. PhD, Economics, University of California at Irvine, 1993; MA, Economics, University of California at Irvine, 1991; BS, Mathematics, Hangzhou University, China, 1982. Specialties: transportation economics, urban and regional economics, discrete choice analysis, quantitative methods.

Nevin Labib Georgi
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Computer Science & Engineering

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Rafael Perez, PhD, University of Pittsburgh. Specialties: artificial intelligence & expert systems development.

Electrical Engineering

Larry Dunleavy, PhD, University of Michigan. Specialties: measurement and modeling of microwave & millimeter wave active devices and passive components.

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Industrial Engineering

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S.K. Khator, PE, PhD, Purdue University. Specialties: computer applications.

Geoffrey O. Okogbaa, PhD, University of Cincinnati. Specialties: quality engineering, automated production support systems, human performance in automated systems.

Lee A. Weaver, PhD, University of Florida. Specialties: applied statistics, statistical reliability.

Anthropology

Alvin W. Wolfe, PhD, Northwestern University. Specialties: applied anthropology, urban anthropology.

Architecture

James Moore, PhD, University of Pennsylvania. Specialties: community planning, daylighting architectural technology.


Business

Mark Dummeldinger, MS, University of Florida. Specialties: sampling, design.

Economics

Joseph DeSalvo, PhD, Northwestern University. Specialties: urban and regional economic analysis.

Geography

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Mark Lindberg, PhD, University of Kansas. Specialties: geographic information systems, automated cartography, cartography, computers and automation.

Tracey Newsome, PhD, The Ohio State University. Specialties: location theory, applied locational analysis, transportation geography, urban transportation problems.

Public Administration

John L. Daly, PhD, Indiana University. Specialties: public administration, public personnel policy, organizational theory.

Renu Khator, PhD, Purdue University. Specialties: environmental politics, comparative public administration.

Susan MacManus, PhD, Florida State University. Specialties: public administration, political science.

Donald Menzel, PhD, The Pennsylvania State University. Specialties: environmental public administration.

William Pammer, PhD, University of Oklahoma. Specialties: public administration, public finance, quantitative aids.

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Affiliated University Faculty

**Florida A&M University**


*Timmie Fadiora*, MS, Florida A&M/Florida State University. Specialties: computer modeling & applications in transportation.

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*Soronnadi Nnaji*, PhD, University of Arizona. Specialties: probabilistic design of civil engineering systems, engineering decision analysis and support systems.

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*Charles Wright*, PE, PhD, Vanderbilt University. Specialties: intermodal transportation assessment, alternative modes of transportation, paratransit.

**Florida International University**


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*Jian Huang*, PhD, Tongji University. Specialties: structural stability, vibration and buckling analysis, guideway public transit.

*Sylvan Jolibois*, PhD, University of California at Berkeley. Specialties: transportation technology, policy planning and economic development.

*Young-Kyun Lee*, PhD, The Ohio State University. Specialties: GIS-T, guideway transit, IVHS, network analysis, visualization, neural network application.

*David Shen*, PhD, Clemson University. Specialties: mass transit planning, guideway transit technology, transit system design, airport planning and design.

*Yihua Xiong*, PhD, University of Washington. Specialties: transportation planning & modeling, land use forecasting.

*Fang Zhao*, PhD, Carnegie Mellon University. Specialties: computer-aided design, artificial intelligence, GIS.

**Florida State University**

*Joseph Cronin*, PhD, Ohio State University. Specialties: strategic transportation planning, service quality measurement.

*Andrew Dzurik*, PhD, Cornell University. Specialties: regional planning, policy analysis, systems analysis.

*James E. Frank*, PhD, New York University. Specialties: infrastructure planning, fiscal dimensions of planning.

*Ron Goldsmith*, PhD, University of Alabama. Specialties: consumer behavior, marketing research and strategy.

*Thomas Lynch*, PhD, Florida State University. Specialties: transportation economics, high speed ground & public transportation economics.

**Lloyd Lyday**, JD, University of Florida. Specialties: urban community policy analysis, legal research practices.

**William A. Mustard**, BS, Florida State University. Specialties: transportation planning, air quality, transit/TDM strategic planning, management information systems, grants management.

**W. Virgil Ping**, PhD, University of Texas at Austin. Specialties: transportation engineering, materials engineering.

**Melvin Stith**, PhD, Syracuse University. Specialties: marketing, management, social psychology.

**Gregory L. Thompson**, PhD, University of California at Irvine. Specialties: policy analysis, transportation/land use interaction, public transportation costing and planning, demand and cost modeling.

**University of Central Florida**

*E. Assam Radwan*, PhD, Purdue University. Specialties: traffic operation, highway safety, traffic simulation.

*Roger Wayson*, PhD. Specialties: transportation/environmental interactions, air pollution and noise impacts.

**Texas A&M University**

*Vergil G. Stover*, PE, PhD, Purdue University. Specialties: access management, transportation planning, site circulation design, urban land development, growth management, congestion management.
Selected Presentations


"APTS Florida Concepts," FTA 1995 Annual Conference, Innisbrook (E. Hill)


"AVI Project at Zuni Transportation," Commission for the Transportation Disadvantaged, 3rd Annual Conference, Orlando (J. Hardin)

"Bikes on Buses," Florida Transit Association (FTA) 1995 Annual Conference, Innisbrook (S. Hendricks)

"Changing Rider Profile: Results from Tri-Rail On-Board Surveys," APTA Commuter Rail Conference, Ft. Lauderdale (S. Polzin)


"Community Needs Assessment of Sun City, Florida," 12th National Conference on Rural Public and Intercity Bus Transportation, Des Moines (J. Hardin)

"Considering Build-Later as an Alternative in Major Investment Analyses," 75th Annual TRB Meeting, Washington DC (X. Chi, S. Polzin)

"Crafting Voluntary Proceedings for the Association for Commuter Transportation," 1995 ACT International Conference, Houston (P. Winters, E. Stults)

"Diagnosing Ridership Increases," FTA 1995 Annual Conference, Innisbrook (D. Hinebrugh)


"GIS in Transit," 5th National Transportation Planning Methods Applications Conference, Seattle (B. Ward)

"GIS Mapping of Potential Rail Abandonments," 5th National Rails-to-Trails Conference, Clearwater (S. Matsa)

"Guidelines for Performing Frequency Spectrum Surveys," 3rd Annual International ETM Symposium, New York City (M. Pietrzyk)

"Incorporating Uncertainty in the Long Range Transportation Planning Process," ITE Annual Meeting, Denver (E. Mierzynski)

"Integrating Access Management into the Land Development Process," Florida Section ITE, Sanibel Island, FL (K. Williams)

"Involving the Public in a Local Coordinating Board Workshop," Commission for the Transportation Disadvantaged 3rd Annual Conference, Orlando (R. Mathias)


"ISTEA Flexibility: Opportunities and Future Challenges," TDM Summit, Clearwater (J. Volinski)

"Linking Land Use and Transportation through Access Management," Annual Conference, Florida Chapter America Planning Association, Tampa (K. Williams)


"Mandated vs. Voluntary Coordination of Specialized Transportation Services in the United States," 7th International Conference on Mobility and Transport for Elderly and Disabled People, Reading, England (R. Mathias)

"Metromover Extensions and Downtown Bus Service in Miami," 74th Annual TRB Meeting, Washington, DC (D. Hinebaugh, D. Doyle)


"Overview and Demonstration of the FHWA TDM Model," TDM Summit, Tampa (P. Winters)

"Overview of Transit Performance Reporting," FTA 1995 Annual Conference, Innisbrook (J. Rey)

"Performance Monitoring of Transportation Agencies," Annual Meeting of the International Road Federation, South Africa (G. Bross)

"Political Pitfalls in Parking Pricing Policy," 74th Annual TRB Meeting, Washington, DC (J. Bradley)

"Public Involvement Strategies," 12th National Conference on Rural Public and Intercity Bus Transportation, Des Moines (R. Mathias)

"Public Involvement in Design," Florida Design Conference 1995, Orlando (K. Williams)

"Recognizing Uncertainty in the Transportation Planning Process," ITE Florida Section Meeting, Tallahassee (E. Mierzynski)

"Research Needs for Light Rail Transit," APTA/TRB Light Rail Conference, Baltimore (S. Polzin)

"Simulating Travel Reliability," 75th Annual TRB Meeting, Washington DC (X. Chi)


"TDM and ISTEA: Flexible Funding Strategies," Region II ACT Conference, Belleaire, MI (G. Brosch)

"TDM Certification Programs That Enhance the Profession," 1995 ACT Conference, Houston (D. Ridge)


"Trails are Transportation," 5th National Rails-to-Trails Conference, Clearwater (S. Hendricks)

"TMAs for Non-Traditional Markets," 1995 TMA Summit, Palm Springs, CA (S. Hendricks)

"Using GIS Tools to Identify Abandoned Rail Corridors," FDOT Annual Bicycle/Pedestrian Coordinator Meeting, Clearwater (S. Maas, R. Statski)

"Using Survey Research to Determine Carpool/Transit Incentive Levels," 65th Annual ITE Conference, Denver (E. O'Halloran)
Selected Publications and Reports

- “1995 Regional HOV Marketing & Positioning Research Study for Palm Beach, Broward, and Dade Counties”
- “A Public Involvement Handbook for Median Projects”
- “A Primer on Neural Networks in Transportation: Concepts and Applications”
- “Alternative Fuels Implementation Plan for Pinellas County: Transit Component”
- “An Introduction to Railroad Crossing Technology and Safety”
- “An Objective Approach to the Transit Service Contracting Decision”
- “Bikes on Bus Service Delivery in Dade County: Suitability & Feasibility”
- “Brevard County Local Coordinating Board Trip Priorities & Eligibility Workshops Summary Report”
- “Charlotte County Transit Development Plan”
- “Collier County Transportation Disadvantaged System Evaluation and Enhancement Study”
- “Commute Alternatives Systems Handbook”
- “Commute Alternatives Educational Outreach Transportation Demand Management Resource Program for the Transportation Professional”
- “Deerfield Beach Transit Options Study”
- “Demand Estimation and Needs Assessment”
- “Demonstration of Video-Based Technology for Automation of Traffic Collection”
- “The Economics and Financing of High Speed Rail and Maglev Systems in Europe.”
- “Evaluating Land Use Methods for Altering Travel Behavior”
- “Evaluation of the Role of the MDTA Metrorobus Operations Supervisor”
- “Florida Transportation Almanac”
- “Florida Five-Year Statewide Transit Development Concepts”
- “Guideway Transit and Intermodality: Atlanta Case Study”
- “Guideway Transit and Intermodality: Data Reports 1, 2, & 3”
- “Guideway Transit and Intermodality: Evaluation of Complementary Policies”
- “Guideway Transit and Intermodality: Integrated Planning & Design of Intermodal Systems”
- “Guideway Transit and Intermodality: Los Angeles Case Study”
- “Journal of Public Transportation”
- “Managing Our Way Through Congestion: Florida’s Commute Alternatives System Handbook”
- “Manatee County Area Transit TDP 1995-2000”
- “Metro-Dade Transit Agency Metrobus Availability and the Transit Operating System”
- “Model Land Development & Subdivision Regulations That Support Access Management for Florida Cities and Counties”
- “National Transportation Marketing Survey: An Evaluation of the Role of Marketing in Transit Organizations”
- “On the Move in Metro-Dade County: Executive Summary of the CUTR/Metro-Dade Technical Assistance Project”
- “Paratransit and Land Use: Facility Siting Considerations”
- “Pavement Management Systems for Local Governments”
- “Pensacola Urbanized Area Transit Improvement Strategy”
- “Public Transportation Options”
- “Special Evaluation of the Hillsborough County Community Transportation Coordinator”
- “Status Review and Future Role of the Tampa-Hillsborough County Expressway Authority”
- “State Transportation Policy Initiative (STPI): Statewide Transportation Needs and Funding Study”
- “STPI: Executive Summary” “TMA Evaluation Program” “The Use of GIS in Public Transportation”
Building for the Future

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We invite you to take part in this exciting journey to the future. For information on how you can play a meaningful role, contact Jo-Ann Alessandrini, Director of Development for the USF College of Engineering, (813) 974-9896.