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CUTR Advisory Board

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The Wilson Company
Chairman

Chester Co/By
Metro-Dade Transit Agency

Don Crane
Floridians for Better Transportation

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Ben Watts
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Virginia Bass Wetherell
Secretary, Florida Department of Environmental Protection

Linda Loomis Shelley
Secretary, Florida Department of Community Affairs
Message from the University President

Even before becoming president of the University of South Florida in 1993, I was aware of CUTR's excellent reputation and dedication to solving transportation problems through research and education. It is easy to understand why the Center is such a source of pride for the College of Engineering, the University of South Florida, and the State of Florida.

The selection of CUTR by the Florida Legislature to conduct the State Transportation Policy Initiative and its designation by Congress as a National Urban Transit Institute are affirmations of the reputation CUTR has earned both locally and nationally.

Equally significant are the contributions CUTR has made to USF in terms of collegiate exchange, education, diversity, community service, and research opportunities for students and faculty. USF is fortunate indeed to have such an outstanding center of research on our own campus. I look forward to following CUTR's continued success.

Betty Castor
President, University of South Florida

Message from the Engineering College Dean

Each year, the achievements of the Center for Urban Transportation Research continue to be more impressive. This year, CUTR's growth and success have been confirmed by the Board of Regents' approval of a permanent CUTR facility which will be built adjacent to the College of Engineering complex.

CUTR continues to be a valuable part of the College of Engineering. Through CUTR, our students and faculty are offered excellent opportunities for learning and application. Undergraduate and graduate students are made an integral part of CUTR at every level. CUTR's work is particularly valuable now as traditional engineering disciplines move in new directions and major companies traditionally dependent on defense contracts diversify.

As CUTR's projects increasingly extend beyond the boundaries of Florida, so does the reputation of the College and University to students and faculty nationwide. I congratulate CUTR on its accomplishments during 1993 and commend its continued commitment to excellence.

Michael G. Kovac
Dean, College of Engineering
During graduate school, majoring in economics, I would have never dreamed that transportation research would provide such a fascinating, challenging, and rewarding career. All of us at CUTR take great pride in providing real solutions to a wide variety of real problems. Even when we get our much-needed new building, there will still be no “ivory tower” at CUTR.

CUTR’s research program continues to be diverse. Our expertise includes intelligent vehicle-highway systems (IVHS), transportation demand management, specialized transportation, growth management, and access management, in addition to public transportation, innovative financing, total quality management, transportation economics, and maintenance and safety, among others. A few of the questions our research addressed last year include:

- Should the Florida Turnpike invest millions of dollars in new high-tech toll collection equipment to improve efficiency, effectiveness, and user satisfaction? Or is this technology too new, unproven, unreliable, and unnecessary?
- What should be the relationship between new, public, real-time traffic information centers and private, eye-in-the-sky traffic reporters?
- How should we decide which roads should be a part of a state system and which should be a local responsibility?
- Since many different agencies provide mobility for people who are transportation disadvantaged (TD) such as the elderly and disabled, how can we coordinate these services to reduce cost or improve service?
- Are transportation demand management (TDM) programs that promote such things as carpooling, vanpooling, and staggered work hours really cost effective? How can we improve communication among people involved in these programs to learn from each other’s experiences, not reinvent programs, learn from others’ mistakes, and duplicate successes?
- How can transit agencies use geographic information systems (GIS) to determine if service is being provided equitably throughout their area?
- How well are Florida’s transit systems doing their job? How do we “judge” performance?
- How does the state and how do local agencies determine future transit “needs”?
- Should seat belts be installed in school buses?
- Is there a way to better coordinate transportation and land use? Transit and development incentives? Parking policies and transit policies?

These questions represent just a few of the research projects we have completed this past year, as described in this annual report.

We are pleased with our contributions in 1993 and look forward to addressing new problems. All of us at CUTR remain dedicated to proving our worth and earning our keep every day. We will continue the pursuit of excellence in the coming years.

Gary L. Brosch
Director
State Transportation Policy Initiative

Recent legislation and fiscal trends in the state of Florida and nationwide have created a unique combination of constraints and opportunities, providing an impetus for examining the way Florida conducts transportation planning. In response to these challenges, the Florida Legislature and the Governor’s Office directed CUTR to undertake the State Transportation Policy Initiative (STPI) as part of its base-funded research.

STPI is a multi-phase, multi-task study that addresses several important policy issues. These include a comprehensive evaluation of the state and local level transportation planning processes as they relate to the implementation of Florida’s growth management laws. In response to the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, STPI is reevaluating the way transportation infrastructure and services are planned and developed at the state and local levels and formulating options for implementing ISTEA requirements. Of particular importance is the potential for linking transportation modes together for a more efficient system. The project will follow up policy areas identified by the Environmental Land Management Study (ELMS).

Phase I tasks include the following:

- a comprehensive review of local and regional planning in Florida in the context of State growth management requirements and federal legislation, culminating in a publication titled Transportation and Growth Management: A Planning and Policy Agenda
- preparation of a land use map of the state, depicting forecasted land use approved in the 458 local government comprehensive plans
- an examination of the air quality planning process in Florida, resulting in a publication titled A Review of Mobile Source Air Quality Practices in Florida
- a review of comprehensive transportation planning for state purposes, which focuses on the attainment of programs and projects of major state importance within the framework of Florida growth management and comprehensive planning statutes
- a study of demographic and travel-related characteristics and trends, resulting in a publication titled Trends and Forecast of Florida’s Transportation Needs
- a comprehensive literature review of transportation elements related to sprawl, resulting in a publication titled The Transportation Costs of Urban Sprawl
- an examination of the effect of different land use mixes and community design on transportation needs, resulting in a publication titled Impact of Community Design on Transportation
- production of a symposium held in September titled “Transportation, Land Use & Urban Form: Managing Florida’s Growth”
- a study of congestion management, resulting in publications titled The Role of Level of Service Standards in Florida’s Growth Management Goals and Moving People in Florida: Transit, TDM and Congestion

Phase II is currently under way and consists of four additional tasks:

- an examination of passenger and freight transportation needs at both the state and local levels of government in Florida and estimation of the costs of meeting transportation needs under different scenarios
- the development of a new strategic transportation planning process for Florida and recommendation of modifications to state process guidelines to
incorporate the explicit recognition of uncertainty into the transportation planning process now carried out by MPOs.

- an examination of the relationship between planning policy and regulatory practice, identification of inconsistencies, and development of guidelines to assist local governments in promoting conformity between land development regulations and local comprehensive plans.

- further study of information gathered in Phase I and elaboration upon the principles of sustainability to create an initial set of guidelines for sustainable community design.

**Sponsoring Agency:**
Florida Legislature

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**National Urban Transit Institute**

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, a $151-billion, six-year highway and mass transit bill, established a National Urban Transit Institute at CUTR. The bill authorizes annual funding from 1992 to 1997 to CUTR and a consortium of Florida A&M University, Florida State University, and Florida International University to conduct research in rapidly growing urban areas.

The objective of the Institute is to combine academic research, educational programs, and real world experience to develop innovative, pragmatic approaches that will enable public transportation to better meet the evolving needs of U.S. citizens. The Institute's focus is on issues critical to the future success of transit such as integration of transportation and land use, adoption and utilization of high technology to solve transit problems, coordination of the multiple jurisdictions and entities involved in providing transportation services, development of methods to carry out multimodal and intermodal planning, and changes to the transit industry to reflect the evolving social and demographic changes taking place in this country.

Specific areas of study by CUTR during the first year include:

- **The Journal of Public Transportation**—this project will fill a national need for a high-quality refereed transportation journal dedicated specifically to public transportation. The journal will be produced on a quarterly basis and will focus on the identification of innovative solutions to transportation problems.

- **Commute Alternatives Educational Outreach**—this project will introduce and enhance knowledge of transportation demand management strategies to individuals responsible for implementing these concepts.
nationwide. Educational materials will be produced, and workshops will be conducted.

- Paratransit and Land Use: Facility Siting Considerations—using ten to fifteen local-area case studies, this study will identify practices that result in more efficient integration of paratransit routes and placement of the facilities used by paratransit customers. Including these practices in the decisionmaking process and classifying facilities according to their dependence on paratransit services is also part of the study.

- State Transportation Policy Initiative Data Support—this study is developing a database of travel and journey-to-work information to assist transportation planners and decisionmakers in the state of Florida. Specific issues selected for detailed study in this project include minority and elderly demographics and travel behavior issues.

- National Transportation Data—this study is analyzing the Nationwide Personal Transportation Study and the Census Journey-to-Work databases to evaluate current trends in household demographics, land use, and travel behavior in the U.S. The results will be used to assist transportation planners and decisionmakers throughout the country.

- Economics and Policy Considerations of IVHS Transit Applications—this project is investigating the economic benefits and costs of adapting various IVHS technologies for use by fixed-route and demand-responsive transit systems. The project is designed to assist transit properties in comparing the benefits and costs of APTS investments versus conventional investments in public transit improvements.

Studies being conducted by consortium members include:

- evaluation of an urban transportation model for small to medium size transit systems and the development of a decision support system for urban transit systems management (Florida A&M University)

- evaluation of the impact of the national demographic and technological trends on future transit efficiency (Florida International University)

- assessment of the environmental effects of urban transit systems, the evaluation of financing strategies for high speed rail and magnetic levitation systems, evaluation of land use patterns that influence travel behavior, and analysis of transit marketing materials by the Florida Institute for Marketing Alternative Transportation (Florida State University).

Sponsoring Agency: U.S. Department of Transportation
Advanced Public Transportation Systems (APTS)

This three-phase project determined the applicability of intelligent vehicle-highway system (IVHS) technologies to Metro-Dade Transit Agency operations. Phase I culminated in the preparation and submittal of a demonstration grant proposal to the Federal Transit Administration. Phase II will evaluate the demonstration project, and Phase III will include the actual implementation of selected APTS projects.

Metro-Dade Transit Survey Design

In this project, CUTR designed survey instruments for an on-board survey of Metro-Dade Transit patrons and an urban area travel survey. On-site data were collected and objectives of the survey were reviewed. The final report details the process of selecting the survey methods and instruments chosen, including assessments of various approaches and the rationale for choosing the final methods and forms.

Metro-Dade Transit Joint Use Policy Review

CUTR reviewed the Metro-Dade Transit Joint Use Policy, expanded it to include all modes, and prepared a work program for joint development master planning. Key administrative participants in the joint use arena were interviewed, and current and planned transit facilities were reviewed. Representative samples of joint use efforts were reviewed and elements that may be applicable to Dade County were identified.

Transportation Utility Fee Feasibility Study

CUTR researched the legal and economic implications of adopting a transportation utility fee in Dade County to fund transportation infrastructure investment, maintenance, and operations. Such a fee may have broader statewide applications if statutory and legal issues are successfully resolved. This effort is unique in that it involved a fee that would support both roadway and public transit investments.

Bus Operators’ Procedures Manual Review

CUTR prepared a bus operators’ procedures manual for Metro-Dade Transit Agency bus operators. This included establishing goals and objectives for the manual, reviewing preliminary work prepared by MDTA staff, interviewing key managers, and analyzing pertinent literature applicable to federal, state, and local requirements.

Congestion Mitigation

CUTR studied the potential of promoting increased use of public transportation in downtown Miami and enhancing pedestrian movements between the Metromover College/Bayside and College North stations, Miami-Dade Community College, and Bayside Marketplace. A final report was produced that includes recommendations for the development of an integrated transportation/campus plan, land use and transportation improvements, and project phasing, schedules, and costs. This project was done in conjunction with Miami-Dade Community College and the local private sector.

Fare Cross-Elasticities

CUTR obtained information on the usage patterns and behavior/motivations of Metro-Dade Transit Agency patrons who purchase monthly passes. From this, cash fare and pass fare cross-elasticities and methodologies for forecasting the impact of fare structure changes on method of fare payment were developed. In addition, this information will be used to review allocation of pass revenues to bus and rail modes. A model to allocate pass revenues among modes will be revised, and a second model to forecast pass use and revenues as a result of changes in fare structure will be developed.
Tri-Rail Service Extension Study

CUTR is providing technical and research support to Dade County in the analysis and development of a proposal for expansion of Tri-Rail services and facilities to better serve the patrons in southeast Florida. Options being evaluated include southern extensions in Dade County and a spur to Joe Robbie Stadium. This will involve coordinating a project team of local agencies, compiling cost and revenue information into a conceptual financial plan that identifies funding scenarios, and developing a preliminary financial plan.

Special Transportation Service Brokerage Implementation Plan

CUTR will provide technical assistance to Dade County during the phase-in of the new Special Transportation Services brokerage program to determine the method the broker will use to distribute paratransit trips to service providers by defining the options, the method by which Dade County can function as contract administrator and service provider, and how cost, availability, and service quality issues will be balanced.

MDTA Metromover Extensions Transfer Analysis

Unlike Metrorail to metromover transfers, the current MDTA fare policy does not address a bus to mover or mover to bus transfer. CUTR will analyze the impacts on existing riders for both travel time and cost introduced by the transfers from bus to mover upon the opening of the new extensions, recommend an equitable fare transfer policy, and develop an alternative bus routing and implementation/phasing plan.

MDTA Productivity and Efficiency Analysis

Overtime is often viewed to be the result of poor management or scheduling practices, but it may actually be a more efficient way of meeting the labor requirements of transit than hiring additional employees. State-of-the-art practices in the transit industry with regard to overtime and productivity will be reviewed to determine which factors most strongly affect the choice between authorizing more overtime and hiring additional labor at MDTA.

Jitney Enforcement Strategies

CUTR will review various strategies adopted at transit agencies around the country to combat the problems posed by illegal jitneys and private vans. Metro-Dade Transit Agency has faced a loss in ridership and revenue from these operations. The busiest bus routes are often the focus of competing jitney service, resulting in the most profitable areas of public transit ridership being drastically reduced. CUTR will summarize the effectiveness of various enforcement strategies and recommend a course of action to address the problem in Dade County.

Fare Policy

Long-term fare policy for the MDTA transit system will be developed under this work order, taking into account existing and historical fare structure in Dade County, fare policies at other multimodal transit agencies nationwide, transfer policies, treatment of intermodal fares, discounts for multi-trip purchases, time of day differentials, and distance-based fares.

On-Board Survey

Under this work order, an on-board survey of transit riders in metropolitan Dade County was conducted and then analyzed. Information obtained included origin-destination data, mode of access, ridership by time of day, and ridership demographics. These data will be used in a long-range plan update, alternatives analyses, and project planning.

Sponsoring Agency:
Dade County
Electronic Toll Collection Field Performance Evaluations

CUTR was selected by the Florida Turnpike Office to serve as field manager for performance evaluations of AVI/ETTM systems. The primary purpose of the evaluations was to provide first-hand knowledge and insight of technology characteristics to FDOT in its development of an AVI/ETTM technology performance specification. Five vendor teams participated in the examination of "read-write" technologies, each being subjected to 24 hours of evaluation over a three-day period. Ten different types of vehicles operating at different speeds and in various configurations were utilized in the evaluations. Violation enforcement sub-components also were examined. CUTR developed and maintained a performance evaluation diary, coordinated electronic verification measurements, andcatalogued the evaluations on videotape. Findings were documented in a final report.

Sponsoring Agency: Florida Department of Transportation, Florida Turnpike Office

Integrated Transportation Information Center

An early deployment plan for the implementation of an Integrated Transportation Information Center for the Tampa Bay area was developed. The project analyzed different methods of gathering real-time traffic information, evaluated methods of disseminating that information, and catalogued existing traffic control centers and other resources in the Tampa Bay area. Site visits were made to existing systems in the U.S. as possible models for the recommended system. Public perceptions were solicited through focus groups and a project advisory committee. A final recommendation was made for the implementation of a real-time traffic information center, including a staged implementation plan, an order-of-magnitude cost estimate, and options for cost-sharing partnerships.

Sponsoring Agency: Federal Highway Administration, Florida Department of Transportation, District VII

SunPass Marketing Analysis

SunPass is Florida's program of electronic toll collections. In this project, CUTR reviewed and made recommendations on a patron survey designed for SunPass. In addition, a detailed review of the statistical analysis methodology and findings of the survey was conducted. This review assessed the completeness and rigor of the overall analysis and made recommendations for improvement. Additional marketing information was collected by CUTR by means of telephone interviews with other toll agencies around the country to learn of their experiences with marketing activities and patron surveys regarding electronic toll collection. A one-day presentation was made to the SunPass working group to report the study findings.

Sponsoring Agency: Office of Florida's Turnpike
Functional Classification of Florida’s Roadways

The Florida Legislature commissioned CUTR to develop a new system for classifying Florida’s roads and for determining jurisdictional responsibility. CUTR developed classification criteria and recommended appropriate level of service and access standards for roads of different classes. Seven ownership criteria were determined and recommended, as were four classification criteria. Implementation of CUTR’s recommendations is under review. The fiscal impacts of the proposed classification system were analyzed and are being reviewed. The fiscal impacts being considered include the additional fiscal responsibility incurred by local governments associated with state roads that transfer to local control, as well as additional state fiscal responsibility for local roads transferred to the state.

Sponsoring Agency: Florida Legislature, Florida Transportation Commission

Electronic Toll and Traffic Management (ETTM) Systems

CUTR was selected by the Transportation Research Board to prepare a synthesis report on Electronic Toll and Traffic Management (ETTM) systems. The report was prepared for the primary purpose of sharing general information regarding ETTM systems, such that the evaluation and decision-making process may be more enhanced and productive. The synthesis report discusses the role of ETTM in transportation, alternative technologies, system design considerations, institutional and implementation issues, traffic management applications, traveler information services, status of major ETTM projects, the results of CUTR’s operator and vendor survey, and future directions for ETTM systems. A final report was published by TRB in December 1993.

Sponsoring Agency: The National Academy of Sciences, Transportation Research Board

IVHS Applications for Measurement of Corridor Level of Service

CUTR will develop and test new methodologies for determining roadway level of service using actual automobile travel speeds measured by an Automatic Vehicle Location (AVL) system. This contract is a three-phase project and Phase I consists of determining the scope of services for future work. Phase II will consist of gathering vehicle travel speeds on Miami’s transportation network and developing a methodology that classifies roadway level of service using the data gathered. During Phase III, CUTR will evaluate performance of Automatic Vehicle Location in the application. A private vendor has agreed to donate the use of its AVL system for a 60-day demonstration test. This work is being performed in conjunction with the Florida Atlantic University-Florida International University Joint Center for Urban and Environmental Problems.

Sponsoring Agency: City of Miami
Hernando County TD Services

CUTR will serve as a consultant to the Spring Hill/Hernando Metropolitan Planning Organization on two tasks associated with Hernando County’s transportation disadvantaged transportation program. An examination of the current coordinated transportation system will be made, which will include an evaluation of the Medicaid transportation system and the current Community Transportation Coordinator system. Potential options for regulating public transportation providers operating in Hernando County will also be reviewed. This will involve the review of public transportation regulations in other counties to identify potential options for Hernando County.

Sponsoring Agency:
Tindale-Oliver & Associates

Community Transportation Coordinator Advanced Training

CUTR will conduct six one-day advanced training workshops for community transportation coordinators throughout Florida. The workshops will stress the importance of performance evaluations and teach participants to conduct self evaluations. A video highlighting the “best practices” of CTCs in Florida also will be produced and will be shown during the workshops. The workshops will be based on the “Evaluation Workbook for Florida’s Community Transportation Coordinators and Providers,” prepared by CUTR. Prior to the workshops, a field test of the evaluation model and workbook will be conducted, the results of which will be included in the final version of the workbook.

Sponsoring Agency: Florida Transportation Disadvantaged Commission

TRB Paratransit Newsletter

At the request of the Transportation Research Board, CUTR will publish a newsletter for the TRB Paratransit Committee. The newsletter will be produced quarterly and distributed nationally and will report on the latest research in transportation for senior citizens, persons with disabilities, and others who are transportation disadvantaged. Information will be gathered from a variety of sources, including TRB committees and professionals in the field throughout the country and internationally. The first issue will be produced in Spring 1994.

Sponsoring Agency:
Florida Legislature
TD Research Services

CUTR worked with the Florida Transportation Disadvantaged (TD) Commission on several contracts to assist in accomplishing a variety of research and training activities in 1993:

ADA Impacts Study: This project examined the initial impacts of ADA complementary paratransit services on the Florida Coordinated Transportation System.

Cost Allocation and Fare Structure Development: For this project, a handbook for community transportation coordinators (CTCs) on using fully allocated costs and fare structure development was developed and produced.

CTC Cost Comparison Study: CUTR provided a comprehensive analysis of various CTC structures in an attempt to identify whether any CTC structure was more cost-effective than another.

CTC Evaluation Model: A model for conducting comprehensive evaluations of CTCs and service providers was developed. The model may become the standard evaluation tool used by CTCs.

Statewide Operations Report: In this project, data contained in the CTCs' 1991, 1992, and 1993 annual operating reports were verified and compiled into statewide reports for each fiscal year. The report includes performance measures for each CTC and peer group analyses.

Trip Prioritization Procedures: CUTR surveyed TD operators in Florida regarding the use of trip priorities for paratransit operations. Based on the survey and research about other trip priority procedures used throughout the country, CUTR developed a process for developing and implementing trip priority procedures.

Workshops: Several workshops were developed, organized, and conducted to provide training to local coordinating board members and on scheduling and dispatching procedures for paratransit services.

Ongoing TD Commission projects include:

TD Commission Long Range/Strategic Plan: CUTR is working with the TD Commission on preparation of the new five- and twenty-year strategic plan for the TD program. This is a two-year project that will be completed in 1995.

Evaluation Workshops: CUTR continues to teach workshops throughout the state to introduce CTCs and designated official planning agency staff to the evaluation model.

Video: A video is being developed and produced that will highlight exemplary TD programs throughout the state.

Sponsoring Agency: Florida Transportation Disadvantaged Commission

Transportation Disadvantaged Passenger Trips by Trip Purpose

- Shopping
- Employment
- Educational
- Medical
- Nutritional, Social and Recreational
TMA Clearinghouse

The Florida Department of Transportation and the Florida Energy Office contracted with CUTR in 1991 to establish the TMA Clearinghouse, a service developed to foster the formation of transportation management associations (TMAs) in Florida and across the nation. Now beginning its third year, Clearinghouse activities include maintenance of a resource center of TDM materials; production of a national newsletter, the TMA Clearinghouse Quarterly, which details current events and information in the TDM area; provision of assistance upon request to district FDOT offices with the formation of TMAs or assistance to existing TMAs and to the Florida Commuter Assistance Program; and development of formal evaluation criteria to be used by FDOT to monitor the performance of Florida TMAs.

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

TDM Certification and Training Program

As an extension of the "Integration of Commute Alternatives into the Growth Management Process" project completed in 1992, CUTR researched and designed a TDM certification and training program. This program will provide intensive training in TDM to state and local decisionmakers, employers, developers, and others to facilitate the implementation of TDM across the state and to ensure that qualified personnel are available for staffing of the programs. Working with a Steering Committee comprised of TDM professionals, State agency representatives, and others, CUTR researched existing TDM training programs across the country, developed an intensive curriculum and training materials, and will offer the weeklong course in early 1994.

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

Capital City Transportation Management Association

CUTR continues to provide technical assistance in the development and implementation of a commuter assistance program and demonstration transportation management association (TMA) for the Capital Center area of Tallahassee. Initially a cooperative effort among CUTR, the Florida Department of Transportation, and Florida State University, the Capital City TMA was established in 1992. Under contract with Florida State University, CUTR assisted the TMA in developing an organizational structure and bylaws, determining appropriate fee structures, and making provisions for legal arrangements and program design. Additional assistance includes development of a program budget and support and assistance with ridesharing software.

Sponsoring Agency: Florida State University
Virginia TDM Workshops

In cooperation with the Virginia Department of Rail and Public Transportation (VDRPT), CUTR designed and conducted a two-day training seminar on how to develop successful transportation demand management (TDM) programs. The intent was to provide experienced TDM professionals with the latest information on those TDM components that are proving to be the most successful. The focus was on how to encourage employers and employees to implement TDM programs. Modules taught in the seminar included information on trip reduction ordinances, alternative work hours, telecommuting, transportation management organizations, transit and ridesharing, HOV lanes, and land use. Also included were modules on parking, funding, and customer satisfaction, with an emphasis on Total Quality Management. Pre-test and post-test scores demonstrated a significant increase in comprehension.

Sponsoring Agency: Virginia Department of Rail and Public Transportation

Cost Effectiveness of Travel Demand Management Strategies

This project is designed to assist in the development of information and tools to advance the knowledge and implementation of transportation demand management (TDM) strategies, particularly resulting in guidance materials that will assist employers and public agencies in assessing the benefits and costs of alternative programs of TDM strategies. Specifically, CUTR, as part of a team with COMSIS, will perform an extensive data collection effort to establish design factors of employer-based TDM programs; assess the information on benefits and costs related to these programs and determine if and how this information was used to make program decisions; develop a benefit-cost methodology that synthesizes the findings into a set of procedures; and obtain information from public agencies on their roles and expectations related to employer-based TDM programs and their needs for information. A handbook for employers will be produced to assist them in performing benefit-cost analyses.

Sponsoring Agency: Transit Cooperative Research Program, Transportation Research Board

Maine TDM Training Seminars

At the request of the National Resources Council of Maine, based on a referral by the Public/Private Transportation Network (PPTN), two one-day workshops were conducted in Augusta and Portland, Maine. The first training session, held in Augusta, served as an introduction to transportation demand management (TDM) and instruction focused on defining TDM, determining the effectiveness of TDM, and reviewing TDM strategies. The second training session, held in Portland, focused on how to develop successful TDM workshops. Both seminars were attended by planners, rideshare coordinators, and state agency personnel. Pre-test and post-test comparisons of all participants and program evaluations were conducted. Post-test results indicated a significant increase in TDM knowledge.

Sponsoring Agency: National Resources Council of Maine
Key West Transit Development Plan

Through a contract with the Florida Department of Transportation, CUTR assisted the City of Key West in the preparation of a transit development plan, as required by Florida Statutes. The plan assessed transit needs, developed a staged implementation program to meet the identified needs, and integrated transit goals and objectives with those of other adopted plans, including local comprehensive plans. Efforts included establishing a review committee, compiling demographic, economic, and transportation data, analyzing institutional alternatives, assessing the feasibility of contracting of system elements, and conducting demand estimations and needs assessments for transit ridership.

Sponsoring Agency: Florida Department of Transportation, District VI

Privatization in Public Transit

In an effort to examine transit privatization issues in Florida, the Florida Department of Transportation contracted with CUTR to provide a better understanding of transit privatization's history and evolution, the conditions that lead to its use, and how it has been applied and promoted in Florida and the U.S. Research efforts included a review and assessment of privatization initiatives across the country and identification of contracting activities among Section 9 transit operators in Florida. Issues identified as a result of the research were noted, including contract design and enforcement and labor issues, and two technical memoranda were prepared. The project culminated in the development and production of a handbook, "Transit Service Contracting: A Handbook for Florida's Transit Systems," aimed at assisting agencies in Florida that are interested in pursuing competitive contracting of services.

Sponsoring Agency: Florida Department of Transportation

Cocoa Beach/A1A Mobility Study

At the request of members of the Brevard County legislative delegation, CUTR assisted the City of Cocoa Beach in developing a solution to the mobility problems on State Road A1A. The study evaluated the transportation demands in the corridor and reviewed the potential for transit as an option for meeting community transportation needs. Current transit usage and service in the Cocoa Beach area were reviewed, and a survey of employee zip codes was administered for work locations in Cocoa Beach and Cape Canaveral as well as at the Kennedy Space Center. The types of transit options identified include express bus service, local fixed-route bus service, specialized fixed-route bus service, and a combination thereof.

Sponsoring Agency: Florida Legislature

| Number & Percent of Systems Purchasing Bus Service in the United States, 1990 |
|-----------------------------|----------|-------------------|-------------------|-------------------|-------------------|-------------------|
| 1000 or more vehicles | 2 of 6, 33% | 1 of 3, 33% | 1 of 3, 33% | 1 of 3, 33% | 1 of 3, 33% | 1 of 3, 33% |
| 500-999 vehicles | 5 of 15, 33% | 2 of 6, 33% | 2 of 6, 33% | 2 of 6, 33% | 2 of 6, 33% | 2 of 6, 33% |
| 250-499 vehicles | 1 of 3, 33% | 1 of 3, 33% | 1 of 3, 33% | 1 of 3, 33% | 1 of 3, 33% | 1 of 3, 33% |
| 100-249 vehicles | 3 of 10, 30% | 3 of 10, 30% | 3 of 10, 30% | 3 of 10, 30% | 3 of 10, 30% | 3 of 10, 30% |
| 50-99 vehicles | 1 of 2, 50% | 1 of 2, 50% | 1 of 2, 50% | 1 of 2, 50% | 1 of 2, 50% | 1 of 2, 50% |
| 25-49 vehicles | 1 of 3, 33% | 1 of 3, 33% | 1 of 3, 33% | 1 of 3, 33% | 1 of 3, 33% | 1 of 3, 33% |
| 10-24 vehicles | 1 of 3, 33% | 1 of 3, 33% | 1 of 3, 33% | 1 of 3, 33% | 1 of 3, 33% | 1 of 3, 33% |
| 5-19 vehicles | 1 of 3, 33% | 1 of 3, 33% | 1 of 3, 33% | 1 of 3, 33% | 1 of 3, 33% | 1 of 3, 33% |
| Under 5 vehicles | 1 of 3, 33% | 1 of 3, 33% | 1 of 3, 33% | 1 of 3, 33% | 1 of 3, 33% | 1 of 3, 33% |

Number Purchasing Some Bus Service
Number of Systems
LYNX CTC Transition/Five-Year TD Plan

Tri-County Transit (LYNX) in the Orlando area retained CUTR to provide technical assistance to LYNX in assuming the role of community transportation coordinator (CTC) in the provision of transportation services to transportation disadvantaged persons. Assistance also was provided in the preparation of the county's Five-Year Transportation Disadvantaged Plan. Specifically, CUTR provided information on methods for handling the distribution of funds for the transportation disadvantaged by agencies such as Medicaid and the United Way, and assisting with the actions necessary for providing a smooth transition between the current CTC and LYNX. CUTR also reviewed the proposed transportation disadvantaged program design, including the development of a five-year transportation disadvantaged plan. In addition, CUTR assisted LYNX in complying with Title VI program requirements by using a geographic information system (GIS) to show that service is equitably provided throughout the service area.

Sponsoring Agency: LYNX-OSOTA

Assessing Saturation of Men's Travel

CUTR is reviewing the Nationwide Personal Transportation Study (NPTS) survey data that indicate that males 25 to 55, the highest travel group, seem to be showing signs of stability in overall travel growth. Through a literature review and further evaluation of NPTS data, several key questions will be addressed, such as: Are there significantly different trends in male/female travel and travel by age group that support the idea of lesser growth by the highest travel propensity travel groups? Is there some maximum amount of time that people are willing to spend on travel? Does this trend signal some kind of upper limit on travel propensity? A final report will be prepared in Spring 1994.

Sponsoring Agency: Federal Transit Administration

Lee County Five-Year Transit Development Plan

In this project, a five-year transit development plan (TDP) for Lee County will be prepared. Initially, demographic, economic and transportation data on Lee County will be collected by CUTR. Additional information on the current Lee County transit system will be gained through the analysis of surveys of patrons and bus operators. Focus groups of non-users will be used to identify issues and opportunities, and interviews with key local officials and community leaders will identify policy issues of greatest concern. After data collection, CUTR will assist in the identification of goals, objectives, and policies, the identification and evaluation of existing transit services, an estimation of demand and assessment of needs, and the identification and evaluation of alternatives for transit operation in Lee County.

Sponsoring Agency: Lee County Department of Public Services

Average Daily Person Trips for Men (Age 5+) by Race

<table>
<thead>
<tr>
<th>Race</th>
<th>1983</th>
<th>1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>White, Non-Hispanic</td>
<td>3.11</td>
<td>3.15</td>
</tr>
<tr>
<td>Black, Non-Hispanic</td>
<td>2.34</td>
<td>2.30</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1.35</td>
<td>2.60</td>
</tr>
<tr>
<td>Other, Non-Hispanic</td>
<td>2.64</td>
<td>2.62</td>
</tr>
</tbody>
</table>
Tri-Rail On-Board Survey

CUTR compiled and analyzed the results of a comprehensive on-board survey of southeast Florida’s Tri-Rail riders, which was administered by Tri-Rail staff. The survey was conducted to determine current patrons’ demographic information, travel behavior, and general satisfaction with the system. A primary objective of the analysis was to compare the results of this on-board survey with the results of CUTR’s 1991 Tri-Rail on-board survey to identify trends and relationships over time. In addition to the comprehensive survey analysis, CUTR also analyzed the survey results in relation to the impacts of Hurricane Andrew on Tri-Rail ridership. Two separate reports were written that detailed the results and analysis of these efforts.

Sponsoring Agency: Tri-County Commuter Rail Authority

Performance Evaluation of Florida’s Transit Systems

As a result of Florida legislation requiring that the Florida Department of Transportation and each transit system develop and report on transit system performance, CUTR conducted performance evaluations of Florida’s urban fixed-route transit systems using 1991 and 1992 data. Following previous evaluations conducted by CUTR, these studies consisted of two parts: a trend analysis and a peer review analysis. In the trend analysis, performance indicators and measures for the previous five years were reviewed to determine how individual systems and the state as a whole have performed over time. In the peer analysis, performance measures of Florida’s transit systems were compared with similar systems across the country.

Sponsoring Agency: Florida Department of Transportation

Manual on Transit Development Plans

CUTR produced a manual to assist in the development of transit development plans (TDPs) as required by Florida Statutes. The manual serves as a guide for transit agencies and MPOs in preparing and updating TDPs. It outlines the role of the TDP in the overall planning process and emphasizes the application of strategic planning concepts to the transit planning process. In addition, the manual outlines other requirements, recommended approaches, methodologies, organization, and content.

Sponsoring Agency: Florida Department of Transportation
Brevard County Five-Year Transit Development Plan

In response to new FDOT requirements and guidelines for transit development plans, CUTR was asked to research and prepare a new TDP for Brevard County. CUTR's work will begin with the establishment of a review committee made up of eight to ten local citizens. Base data on the current transit system will be compiled through the collection of demographic, economic, and transportation data, an on-board survey of users, surveys of operators and non-users, and interviews with key local officials and community leaders. CUTR also will assist in the identification of goals, objectives, and policies. The remaining tasks of identification and evaluation of existing transit services, an estimation of demand and assessment of needs, and the identification and evaluation of alternatives for transit operation in Brevard will lead to the formulation of a five-year transit development plan.

Sponsoring Agency: Space Coast Area Transit, Brevard County MPO

Five-Year Statewide Transit Development Plan

CUTR is preparing a five-year statewide urban transit development plan for Florida for fiscal years 1993/94 through 1998/99. Several scenarios will be presented that indicate the level of transit investment needed to provide different levels of service. These scenarios include: incorporation of existing local transit plans and transit elements of local comprehensive plans; establishment of goals based on geographic coverage of transit networks and service related to population density; examination of the level of transit investment needed to increase transit mode share to certain target levels; identification of equipment and service needed to raise Florida transit services to levels attained in a set of peer cities and states; and exploration of transit funding needs if recent Florida service and ridership trends continue into the future.

Sponsoring Agency: Florida Department of Transportation

Tri-Rail TDP

As the first new commuter rail system in the United States in over 20 years, the Tri-County Commuter Rail Authority is the latest addition to South Florida's regional public transportation network. Tri-Rail began operating as a temporary highway construction mitigation measure in 1989, but has since been granted permanent status. This TDP describes various scenarios for Tri-Rail over the next five years and develops a list of needed improvements, based on interviews with key local officials, focus groups with non-users, and evaluation of existing conditions. These improvements, oriented toward increased reliability, frequency, and access, are prioritized over the five-year period.

Sponsoring Agency: Tri-County Commuter Rail Authority
Analysis of NPTS & Census Journey-to-Work Data

CUTR conducted an analysis of the 1990 Nationwide Personal Transportation Study (NPTS), a national survey sponsored by the Federal Highway Administration. A publication entitled *NPTS Demographics and Travel Behavior: A Comparison of Florida and the United States* was produced in which comparisons are made to determine similarities and differences in various demographic and travel behavior characteristics. A second publication was also produced, *Florida Demographics & Journey to Work: A County Data Book*, which focuses on the results of the 1990 Census Journey-to-Work information. These publications were distributed to planning organizations, transit systems, decisionmakers, and others throughout the state of Florida to assist in transportation planning and decisionmaking.

*Sponsoring Agency: Florida Legislature*

Long-Range Transit Operations Planning Study

This research effort involves investigating long-range transit operations planning. The intention is to develop guidance that will support improved methods for developing long-range service plans. Operations planning processes and techniques that support operations planning efforts are being identified. The guidance should support improved long-range operations planning and assist urban areas as they evaluate various transit service plans as part of their long-range planning efforts.

*Sponsoring Agency: Federal Transit Administration*

Intermodal Guideway Public Transit Systems

CUTR is engaged in a collaborative three-year project with Florida International University to look at factors influencing successful implementation of intermodal guideway public transit systems. Nearly $3 billion of federal, state, and local dollars will be invested annually over the next decade in guideway transit projects in U.S. cities. This project will examine complementary policies that support intermodal guideway investment; examine how to preserve the competitiveness of guideway systems as automobile technologies improve; evaluate integrated planning and design of intermodal guideway transit systems; and explore alternative means of evaluating guideway investments. Transportation/land use relationships, system operating and performance characteristics, and the integration of guideway transit and other modes in the urban environment also will be focal points. The study will identify strategies and approaches to assist in making guideway investment successful.

*Sponsoring Agency: Federal Transit Administration*
**Development Incentives that Support Transit**

This study identifies regulatory barriers to the appropriate development of land surrounding transit nodes and determines ways to overcome these barriers and increase the attractiveness of development opportunities at transit stations and surrounding properties. The concurrency management systems of Metro-Dade County, Broward County, and Palm Beach County are being reviewed, and methods to improve incentives and remove disincentives for appropriate development near transit stations are being investigated. The evaluation will include a review of county and municipal land development regulations. Local planning and zoning officials and transit officials will be interviewed, and alternative approaches used by other urban areas are being investigated. The final report will make recommendations for improving existing ordinances and will recommend new mechanisms for implementation.

*Sponsoring Agency: Tri-County Commuter Rail Authority*

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**Parking and Local Transit Policies**

CUTR conducted a study to investigate the relationship between local parking policies and local transit policies. Approaches for coordinating these policies to increase transit use and increase the cost effectiveness of public investments in parking and transit were identified. Factors affecting mode choice decisions as well as the impacts of current parking and transit policies in four selected Florida urban areas and urban areas in other states were evaluated. From this evaluation, a range of actions that would support complementary transit and parking policy were outlined. Finally, specific recommendations for implementation by appropriate levels of government were developed. Findings of the study are included in a final report.

*Sponsoring Agency: Florida Department of Transportation*

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**Florida Travel Data Analysis**

CUTR developed a database of travel and journey-to-work information for Florida and the United States to assist transportation planners and decision-makers in the state of Florida. The database also will be used to enhance the current and future research efforts of CUTR. Data were collected from the 1990 and previous Censuses, the Nationwide Personal Transportation Study, newly-released Census data, literature review, and local observation of commuter flows. Trends in demographic and journey-to-work data for Florida and the United States were compiled and analyzed. The project will culminate in the production of a resource publication on trends in Florida demographics and journey-to-work behavior in Florida and the United States.

*Sponsoring Agency: Florida Legislature*
Feasibility of Safety Restraints in School Buses

At the request of the Florida Legislature, CUTR researched the feasibility of installing safety restraints in large school buses to determine the safety of the restraints, assess the benefits compared to the costs, and identify legal, liability, and enforcement issues. Phase I of the project included a comprehensive literature review of crash and sled tests, review of the safety records of school buses in the U.S., and assessment of the findings. Phase II consisted of a descriptive analysis of Florida school bus accident data, a summary of professional, expert, and interest group opinions and related issues, a detailed safety cost-benefit analysis, and identification of future actions and recommendations. A comprehensive final report was issued upon completion of the study.

Sponsoring Agency: Florida Legislature

Assessment of Fund Allocation for Florida’s Pupil Transportation

The Florida Department of Education contracted with CUTR to conduct an in-depth review and assessment of the formula used to allocate funds for student transportation in Florida. CUTR is working in conjunction with a Transportation Formula Study Group (FSG) established by the Commissioner of Education in September 1993 that found the funding formula substantially deficient and in need of intense review. Numerous analyses to attain a better funding formula were conducted, and a mathematical non-linear regression-based allocation model was selected for its ability to support all of the goals established by the FSG. Revisions to Subsection (4)f of F.S. 236.082 were proposed that incorporate the new formula.

Recommendations will be made to consider improved data collection and the implementation of a statewide automatic transportation routing system.

Sponsoring Agency: Florida Department of Education

Access Management Advisory Service

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 include technical assistance on the application of access management standards and criteria, advice on access permit and classification cases going to administrative hearings, and review and commentary on access permit denials that involve complex cases. Other services include advice on proposed changes to access management standards or highway classifications research on median treatments for retrofitting major roadways to assist FDOT in selecting appropriate retrofit actions.

Sponsoring Agency: Florida Department of Transportation
<table>
<thead>
<tr>
<th>Florida Maintenance Training Program</th>
<th>Analysis of Compliance with Florida’s Motorcycle Helmet Laws</th>
<th>Florida Fake Helmet Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>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 third year, the project includes CUTR acting as a broker in delivering classroom and laboratory maintenance training for transit mechanics; establishing a resource center that provides training programs, audiovisual materials, and reference materials to Florida transit agencies on a free-loan basis; 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.</td>
<td>Because Florida had no baseline data on helmet use by motorcyclists, CUTR was asked to conduct a survey to help establish the data. Data from the 1990 Florida Traffic Accident Report suggest that the actual helmet usage rate by motorcyclists may be below 80 percent. In addition, some Florida motorcyclists are using helmets that do not conform to federal standards. To establish the baseline data, a statewide observational survey was conducted to estimate the number of motorcycle operators and passengers wearing helmets that meet federal standards. The study was conducted using a probability-based survey design with a stratified sampling plan pre-approved by the National Highway Traffic Safety Administration. This study provided baseline helmet use data for use when evaluating the effectiveness of future projects to encourage the use of motorcycle helmets.</td>
<td>The objective of this project was to collect data on the number of non-standard (fake) helmets being worn by Florida motorcyclists. Tasks included (1) submitting a detailed work plan detailing the schedule of observational surveys, including a time schedule, when and how the persons hired to perform the surveys were to be trained, and how the use of non-standard helmets will be recorded; (2) conducting survey personnel training, including teaching classes, providing materials, and utilizing NHTSA training videos and brochures; (3) collecting data, including development of the data collection instrument; and (4) reporting data, including the number of motorcyclists observed at each observation site, the number wearing helmets of any kind, and the number wearing non-standard helmets. The results of the survey were presented in a final report produced in November 1993.</td>
</tr>
</tbody>
</table>

Sponsoring Agency: Florida Department of Transportation

Sponsoring Agency: Florida Department of Transportation-State Safety Office, National Highway Transportation Safety Administration

Sponsoring Agency: Florida Department of Transportation, State Safety Office
Community Corridor Safety Improvement Plans

CUTR developed and implemented evaluation plans for two community corridor safety improvement programs (CCSIPs) in central Florida. CCSIPs are innovative programs with goals of reducing the number of motor vehicle crashes and their associated deaths and injuries. Project countermeasures being evaluated include increased law enforcement efforts, engineering improvements, improved emergency medical response times, and public information and education campaigns. CUTR performed both process and impact evaluations of the two CCSIPs, which will result in an implementation manual to be produced in Spring 1994. The impact evaluation data will be reported as effectiveness measures of the project in reducing crashes, deaths, and injuries.

Sponsoring Agency: Florida Department of Transportation
State Safety Office, National Highway Transportation Safety Administration

African-American Mobility Symposium

CUTR, USF, and the Florida Department of Transportation will present a symposium on African-American Mobility issues in March 1994 in Tampa to examine the problems and issues related to mobility needs in African-American communities. The symposium will feature speakers and experts from across the United States. Emphasized will be the importance of including the unique socio-economic 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 will be part of the program and will feature a panel of experts. Issues include decentralization of urban areas, modal bias (and neglect), and growth in travel demand.

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

Beach Park Traffic Intrusion Study

CUTR is performing a study of the problems associated with traffic intrusion into the Beach Park neighborhood of southwest Tampa to evaluate possible solutions. Comprehensive field traffic studies have included origin-destination studies and vehicular speed studies through the neighborhood. Solutions will be developed for discouraging through-traffic and high-speed traffic. Alternatives being considered include speed humps, four-way stop signs, and one-way street systems, as well as converting streets to cul-de-sacs. A final report will include summaries of the field traffic studies, presentation of the findings, and recommendations for solutions and implementation.

Sponsoring Agency: City of Tampa

From the Back of the Bus to...Deep Space Nine?
A Symposium on AFRICAN-AMERICAN MOBILITY ISSUES
March 23-25, 1994
Tampa Marriott Westshore
Tampa, Florida
Sponsored by the Center for Urban Transportation Research and the Florida Department of Transportation
## Technical Support Activities

CUTR is regularly called on by federal, state, and local agencies, the private sector, the media, and citizens for information, technical assistance, and materials relating to a variety of transportation subjects and projects. Also, CUTR researchers frequently are invited to speak at meetings of various agencies and groups relative to its work program and to regularly participate in conferences, workshops, and strategy meetings concerning transportation matters.

Examples of technical assistance provided in the past year include:

- preparing public transit statistics on Florida's transit systems
- providing information about Florida MPO coordination
- providing information on design requirements for parking spaces, AASHTO design vehicle dimensions, parking stall striping details
- providing information on automatic vehicle identification technology
- assisting with conference/ workshop coordination
- providing information on setting trip priorities
- providing information on market opportunities for defense conversion
- providing information on Census journey-to-work flows
- providing information on development regulations of Florida communities regarding parking facility design and specifications

Organizations receiving this assistance in 1993 included:

- Florida Chamber of Commerce
- Florida Energy Office
- Floridians for Better Transportation
- Glottina Jarkson
- Good Wheels, Inc.
- HDR Engineering
- HARTline
- Healthy Start Coalition
- Hercules Defense Electronic Systems, Inc.
- Hillsborough County Social Services
- Jacksonville Planning and Development Department
- Lakeland/Winter Haven Metropolitan Planning Organization
- Lawley Publications
- LYNX
- Manatee County Transit
- Martin County Council on Aging
- Miller-Sellen Associates
- National Association of State Directors for Pupil Transportation
- Nissan Motor Corporation
- Palm Beach Metropolitan Planning Organization
- Pinellas Department of Environmental Management
- Pinellas Suncoast Transit Authority
- Regional Economic Information Network
- Representative Jim Davis
- St. Lucie County MPO
- Sarasota Chamber of Commerce
- Sierra Club
- South Florida Regional Planning Council
- Southern California Air Quality Management District
- Tampa Tribune
- WFLA-Channel 8
- Wall Street Journal TV
- West Florida Air Quality Coordinating Committee
- Westshore Alliance
- Wilbur Smith Associates
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 student organizations and activities, serving as thesis advisers, assisting students with job placement, teaching transportation and related courses, and working toward the development of 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.

In 1993, positions as research assistants were awarded to 24 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 attending and making presentations at local, state, and national conferences and meetings and maintaining involvement in professional organizations and societies.

Two graduate research assistants were awarded one-year appointments as CUTR Post-Graduate Research Fellows in 1993. Several of CUTR's research assistants attended the annual meetings of the Transportation Research Board, the Florida Transit Association, and the Institute of Transportation Engineers, and USF's ITE student chapter brought several speakers on transportation and related issues to the campus.

1993 Student Research Assistants
Terry Agee, Mechanical Engineering
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Suzi Dieringer, Economics
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Ba Pham, Civil Engineering
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MS, Economics, Florida State University, 1973; BS, Economics, University of South Florida, 1971. Research interests: urban community economic analysis, innovative financing, urban mobility, transportation innovations, total quality management.

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Richard McHugh, PhD, Syracuse University. Specialties: public finance, forecasting, regional economic development.

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Tracey Newsome, PhD, The Ohio State University. Specialties: location theory, applied
Public Administration

John L. Daly, PhD, Indiana University. Specialties: public administration, public personnel policy, organizational theory and behavior, substance abuse policy, and information technology.

Ann Kath, PhD, Purdue University. Specialties: environmental politics, comparative public administration.

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

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

William Same, PhD, University of Oklahoma. Specialties: public administration, public finance, quantitative analysis.

Diane Rahm, PhD, Syracuse University. Specialties: science & technology policy, information systems and computer applications, policy analysis and program evaluation.

Platon N. Rig, PhD, Michigan State University. Specialties: urban management and planning, metropolitan reorganization and interlocal urban cooperation.

Florida A&M University

Addis C. Taylor, PhD, Florida State University. Specialties: transportation management training, paratransit marketing.

Charles Wright, PE, PhD, Vanderbilt University. Specialties: intermodal transportation assessment, alternative modes of transportation, paratransit, hazardous materials transportation risk assessment, transportation modeling, commodity movement.

Florida International University


David Shen, PhD, Clemson University. Specialties: mass transit planning, guideway transit technology, transit system design, airport planning and design, transportation policy, urban mobility research, land use/transit planning.

Yihua Xiong, PhD, University of Washington. Specialties: transportation planning and modeling, land use and travel demand forecasting, computer modeling, GIS.

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

Florida State University

Joe 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 problems.

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

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

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

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

Melvin Stith, PhD, Syracuse University. Specialties: market data, management, social psychology.

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

University of Central Florida

D. Scott Leftwich, PhD, North Carolina State University. Specialties: transportation planning, transportation modeling.

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 of transportation.
<table>
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<tr>
<th>Selected 1993 Presentations</th>
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<tr>
<td>• &quot;1990 Nationwide Personal Transportation Survey Results: A Comparison of Florida vs.</td>
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<td>the Nation,&quot; 72nd Annual IRB Meeting, Washington DC (J. Rey).</td>
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<tr>
<td>• &quot;ADA Service Standards: Six Service Criteria and More&quot; Solving ADA Paratransit</td>
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<tr>
<td>Problems—How to Cope with Reality, Phoenix (B. Gribbon).</td>
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<tr>
<td>• &quot;AVI/ETM Field Performance Evaluations: The Florida Turnpike Experience,&quot; ITE</td>
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<tr>
<td>International Conference on Transportation in the ISTEA Era, Orlando (M. Pietrzyk).</td>
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<tr>
<td>• &quot;The Brewood County Publicly Sponsored Vanpool Program,&quot; ACT Annual Meeting,</td>
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<tr>
<td>Scottsdale AZ (P. Mauil).</td>
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<tr>
<td>• &quot;Bus Service Contracting in the United States: A Status Report,&quot; Sixth National Public</td>
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<tr>
<td>Sector Productivity Improvement Conference Scottsdale AZ (W. Ball).</td>
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<tr>
<td>• &quot;The Coordination of Parking and Transit Policies,&quot; FDOT</td>
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<tr>
<td>Executive Committee, Tallahassee (R. Jones).</td>
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<tr>
<td>• &quot;Dealing with Uncertainty in Public Transit Capital Planning,&quot; ASCE Conference on</td>
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<tr>
<td>Infrastructure Management, Denver (S. Polizin).</td>
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<tr>
<td>• &quot;Defining IVHS Standards: Theory and Practice,&quot; ENR National IVHS Conference on</td>
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<tr>
<td>Building America’s Smart Highways, McLean VA (M. Pietrzyk).</td>
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<tr>
<td>• &quot;Developing a Customized Pavement Management System for Port Orange, Florida,&quot; ASCE</td>
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<tr>
<td>Conference on Infrastructure Management, Denver (M. Pietrzyk).</td>
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<tr>
<td>• &quot;Electronic Toll Collection: Field Performance Evaluations for the Florida Turnpike,&quot;</td>
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<td>IVHS America Third Annual Meeting, Washington DC (M. Pietrzyk).</td>
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<td>• &quot;ELMS III in Florida: Breakthrough for Transportation and Land Use?,&quot; ITE International Conference on Transportation in the ISTEA Era, Orlando (E. Mierzejewski).</td>
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<tr>
<td>• &quot;Evaluating Community Safety Improvement Programs,&quot; Statewide FDOT Safety Engineer's Meeting, Tampa (T. Miller).</td>
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<tr>
<td>• &quot;Florida Mechanic's Training Program,&quot; FTA Mid-Year Meeting, Daytona Beach (T. Miller).</td>
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<tr>
<td>• &quot;Florida's TMA Clearinghouse,&quot; Florida's TDM Summit, Tampa (D. Rudge).</td>
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<tr>
<td>• &quot;Florida Demographics and Travel Behavior: Where Are We Now?&quot; Tampa Bay Regional Economic Information Network (W. Ball, J. Rey).</td>
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<td>• &quot;The Florida Transportation Disadvantaged Program,&quot; Transportation Association of South Carolina Annual Meeting, Myrtle Beach (P. Mauil).</td>
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<td>• &quot;Florida’s State Transportation Policy Initiative,&quot; ITE International Conference on Transportation in the ISTEA Era, Orlando (E. Mierzejewski).</td>
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<td>• &quot;Integrating Land Use and Transportation and Dealing with Uncertainty in the</td>
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<tr>
<td>Transportation Planning Process,&quot; Planning Challenges ’93, East Central Florida Regional Planning Council, Orlando (E. Mierzejewski).</td>
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<tr>
<td>• &quot;Integrating Transportation and Land Use to Support Transportation Demand Management&quot; and</td>
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<tr>
<td>• &quot;Methodologies for TD Trip Prioritization,&quot; Florida Transportation Disadvantaged Conference, Orlando (R. Mathias).</td>
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<td>• &quot;Okalosoa County Transit Development Plan,&quot; Workshop for County Commissioners and General Public, Shalimar, Florida (D. Boyle).</td>
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<tr>
<td>• &quot;Older Driver Licensing Restrictions,&quot; TRB Older Driver Meeting, Washington DC (T. Miller).</td>
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<tr>
<td>• &quot;Perspectives on Uncertainty in Planning,&quot; ASCE Conference on Infrastructure Management, Denver (E. Mierzejewski).</td>
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<tr>
<td>• &quot;Planners and ISTEA: Making Transit Work,&quot; Florida</td>
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Selected 1993 Publications and Reports

- M. Pietrzyk (with E. Mierzejewski), *NCHRP Synthesis #194*, "Electronic Toll and Traffic Management (ETM) Systems" (TRB).
- "Guidelines for Developing Trip Priority Procedures for Non-Sponsored Trips Purchased with TD Commission Funds" (June).
- "How Structures Compare: A Cost Comparison of Community Transportation Coordinators in Florida" (September).
- "Fare Policy Alternatives" (December).
- "Metropolitan Dade County General Travel Survey Plan and Sampling Plan" (April).
- "NPTS Demographics and Travel Behavior" (January).
- "Parking and Transit Policy Study" (June).
- "Privatization in Mass Transit: Executive Summary" (December).
- "Review of Regulations Pertaining to Public Transportation Providers, Final Report" (December).
- "State Transportation Policy Initiative: Impact of Community Design on Transportation" (November).
- "State Transportation Policy Initiative: The Role of Level of Service Standards in Florida's Growth Management Goals" (October).

- "ADA Impacts on Florida's TD Programs" (December).
- "Analysis of Insurance Issues for Florida's Providers of Transportation Services for Transportation Disadvantaged Persons" (January).
- "City of Key West Transit Development Plan: Final Report" (June).
- CUTRlines, Vol. 4, Nos. 2 and 3; Vol. 5, Nos. 1 and 2 (1993).
- Electronic Toll Collection: Field Performance Evaluation
- Florida Demographics & Journey to Work: A County Data Book (May).
- Florida Department of Transportation, District 7: Final Draft Report for Tampa Bay Area Integrated Transportation Information System" (August).
- "Florida Motorcycle Helmet Observational Helmet Survey, Final Report" (November).
- "Functional Classification Study: Fiscal Impact Analysis of Proposed Revised Roadway Ownership Criteria" (July).
• State Transportation Policy Initiative: Trends and Forecast of Florida's Transportation Needs (October).
• "Strategic Plan for Advanced Public Transportation Systems for Metro-Dade Transit Agency" (November).
• TMA Clearinghouse Quarterly, Vol. 2, Nos 1, 2, 3 (1993).
• "Tampa Bay Area Integrated Transportation Information System, Final Report" (June).
• "Title VI Program—Specific Requirements, LYNX Transit System" (March).
• "Transit Service Contracting: A Handbook for Florida's Transit Systems" (December).
• "Tri-Rail On Board Survey Analysis, Final Report" (July).
• "What Fare is Fair? Cost/Revenue Allocation and Fare Structure Development" (December).

CUTR Faculty Professional Activities

Ball, William
TRB A1C06, Social and Economic Factors in Transportation; Subcommittee on Strategic Planning (co-chair)
TRB A1E05, Transit Management and Performance

Bicka, Stacey
TRB A1C03, Subcommittee on Urban Transportation Data and Information Services
TRB A1C04, Subcommittee on Survey Methods

Brosch, Gary
TRB, University Representative
IRF, Board Member, Education Foundation

Gribben, Ben
TRB A1E02, Subcommittee on Campus Transportation

Hendricks, Sara
ITE, Transportation Planners Council

Jones, F. Ron
TRB A1E10, Paratransit
TRB A1E09, Specialized Transportation

Mathias, Rosemary
TRB A1E10, Paratransit
TRB A1E09, Specialized Transportation, Subcommittee on International Activities
TRB, Planning Subcommittee on Biannual Rural Conference

Mierzejewski, Edward
ASCE, Urban Transportation Economics (chair)
TRB A1E011, Ridesharing
ITE, Transportation Educators Council, Executive Committee

Miller, Tom
TRB, Human Factors Workshop Planning
TRB A3B03, Operator Education and Regulation

Pietrzyk, Michael
ITE 6F-50, Accommodating the Elderly in Transportation Planning (chair)
IVHS America, Benefits, Evaluations & Costs Committee, IVHS America
IVHS America, ETTM Subcommittee
IVHS Florida, Executive Committee

Polk, Amy
IVHS America, Benefits, Evaluation & Cost Committee

Polzin, Steven
TRB A1E12, Light Rail Transit

Rey, Joel
TRB A1C03, Subcommittee on Urban Transportation Data and Information Services

Rudge, Daniel
American Planning Association, Transportation Research Committee
ACT, Communications Committee
ACT, TMA Council

Shock, Ronald
TRB A1E13, Intercity Rail Passenger Systems, Subcommittee on Intermodal Interface with Transit
Association of American Geographers, Transportation Specialty Group

Ward, Beverly
APTA, Minority Affairs Committee
APTA, Policy and Planning Committee
TCRP, Panel Member, Projects B3 and J7

Winters, Phil
TRB A1E011, Ridesharing (chair)
TRB, TDM Task Force
IVHS America, TDM & Telecommuting Task Force
ITE, TDM Advisory Committee
ACT, 1994 International Conference, Program Committee (chair)
ACT, Subcommittee on Ethics (chair)
"Bring together the benefits of education and research to meet our changing transportation needs."

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Annual Report Editor: Patricia Henderson
Designed by Maria Berlin