CUTR
First Annual Report 1988-89

Center for Urban Transportation Research
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In one year, the Center for Urban Transportation Research (CUTR) has built a program of projects centered on creative transportation financing, suburban mobility, and growth management. CUTR's goal is to be a leader in sound transportation research, innovative planning and financing with an emphasis on creating public-private partnerships.

The center was created by the Florida Legislature and the University of South Florida (USF) in 1988 to bring together the benefits of education and research to find solutions to current and future transportation needs. The Legislature provided a base funding of $3.2-million for the first three years plus CUTR has been awarded $1 million more in contracts by federal, state, and local governmental agencies and the private sector.
During our first year, we have built a multi-disciplinary professional research staff, which is supported by affiliated faculty at USF. The center has successfully brought together experts in finance, engineering, planning, safety, statistics, public policy, and the environment to develop comprehensive solutions for all modes of transportation. This has enabled us to advance the state of the art and to keep abreast of additional innovative research, technology, legislation, and regulations being implemented around the world.

CUTR's staff is unique in its integration of analytical capabilities with "real world" experience gained through years of working with public agencies and private firms.

In addition to the professional staff, CUTR employs graduate students with research assistant appointments and other support positions. CUTR also participates in supporting two joint faculty appointments within the College of Engineering.

Fourteen members of the USF faculty are associated with the center, adding their expertise in diverse engineering fields, economics, public administration, and communications. They serve to broaden our range of specialized skills.

Since CUTR's inception, we have concentrated on developing this multi-disciplinary staff while rapidly expanding the number of projects on which we are working to find creative solutions. We also have established strong contacts with local, state and national public and private agencies.

This report describes the progress in our first year and the qualified individuals who will continue to build CUTR's reputation for excellence and broaden the diversity of the program.
GARY L. BROSCH
Director

Mr. Brosch is responsible for directing the center's work, maintaining ongoing client relations, and developing new research projects. In high demand as a speaker during his first year with CUTR, he delivered numerous speeches around the nation on innovative financing and the future of transportation.

Mr. Brosch is the former director of the Joint Center for Urban Mobility Research and vice president of the Rice Center at Rice University in Houston, Texas. His experience includes being special economic advisor to the Urban Mass Transportation Administration and staff director of the Committee on Tourism and Economic Development for the Florida House of Representatives. He also worked as a senior research economist for the State of Florida.

He obtained an M.S. in economics from Florida State University, and a B.S. in economics from the University of South Florida.
Mr. Ball is responsible for assisting in the establishment of the Tampa Bay Area Commuter Assistance Program, for analysis of the Factors Related to Transit Use study conducted for UMTA, and for economic research and analysis. He is the co-author of a paper to be presented to the Institute of Transportation Engineers.

He is a recent graduate of the USF economics master's program. He was previously a management trainee with Barnett Bank of Highlands County and a graduate teaching assistant for the USF Economics Department.

Mr. Ball holds an M.A. in economics from USF and a B.S. in economics and political science from Florida Southern College.

Dean Emeritus of the USF College of Engineering, Dr. Burdick is the director of CUTR's Railroad Safety Program.

He served as dean of USF's Engineering Department from 1979 to 1986 and as a professor and engineering consultant for the past 25 years. During this time, he appeared as an engineering consultant for the CBS 60 Minutes program, and served on many committees. He also was chairman of the Regional Transportation Summit and vice chairman of the National Society of Professional Engineers.

Dr. Burdick holds a Ph.D. from the Massachusetts Institute of Technology and an M.S. from the Georgia Institute of Technology in physics.
Ms. Edwards is responsible for developing a transportation management association for the Tampa Palms Development Corporation, CUTR's newsletter, and all public relations activities. She also is assisting in the development of the Transportation Demand Management report for the Florida Governor's Task Force on Urban Growth Patterns.

Ms. Edwards joined CUTR from Pasco County, Florida, where she established a new bus system. Prior to that time, she worked as a free lance writer and has over 10 years of experience in transportation planning, transit, and communications.

She holds a B.S. in regional planning with a double major in psychology from the Indiana University of Pennsylvania.

Dr. Jones is responsible for transportation planning activities at CUTR. He is overseeing the Public Transit Systems Study for the Florida Legislature and the Transportation Demand Management Report for the Florida Governor's Task Force on Urban Growth Patterns.

He came to CUTR from the Tampa Metropolitan Planning Organization where he served as staff administrator. He was previously the director of the transportation consulting program at Stanford Research Institute and chief executive officer of Adirondack Transit Lines. He taught public finance and policy analysis at the University of Illinois in Chicago.

Dr. Jones has a Ph.D. in urban planning and economics from the Massachusetts Institute of Technology and an M.C.P. in transportation planning from the University of California at Berkeley.
Dr. Kaub is in charge of transportation academic programs. Additionally, he is analyzing congestion measures through computer modeling.

His preceding post was assistant professor at the University of Wisconsin. He has over 20 years of experience in transportation engineering, design, surveying, construction, teaching, and research. This varied work experience includes highway and bridge design, computerized timing and traffic simulation plans, transportation planning, surveying, signal design and budgeting.

As associate and assistant professor, he instructed most of these subjects as well as pavement and signal design, construction materials, and traffic.

Dr. Kaub obtained his M.S. and Ph.D. in civil engineering from the University of Wisconsin.

Mr. Mierzejewski is responsible for transportation engineering activities. He heads the urban mobility studies, the Tampa Bay Area Commuter Assistance Program, the Suburban Mobility project, and Florida High Speed Rail programs. Mr. Mierzejewski also has made several presentations and has organized seminars.

Mr. Mierzejewski was recently appointed to the Ridesharing Committee of the Transportation Research Board.

Prior to joining CUTR, he was the district manager of transportation services for Post, Buckley, Schuh, and Jernigan in Tampa. He is a registered engineer with over 18 years of experience in transportation planning and design.

Mr. Mierzejewski has a M.S. in civil engineering from the Massachusetts Institute of Technology and a B.S. in that same field from Worcester Polytechnic Institute.
Dr. Miller handles administration and CUTR's transportation safety program.

He is responsible for budgeting, developing a drug interdiction program to assist Florida transit operators with their drug safety programs, and the State University System program, which is providing transportation research grants to other Florida universities.

Before joining CUTR, Dr. Miller was director of safety for Smalley Transportation Company. He is the former director of the Office of Research and Sponsored Programs at the University of Arkansas at Little Rock and has over 12 years of experience in transportation safety and research administration.

Dr. Miller earned a Ph.D. from Michigan State University and his M.S. from Miami University of Ohio, both in transportation safety.

Dr. Polzin is in charge of CUTR's Florida Public Transportation Investment Strategy study, the Tampa Mayor's Mobility Initiative, and is providing technical support on transit to the Florida Governor's Task Force on Urban Growth Patterns. He also has made presentations on transit planning.

Dr. Polzin is the former manager of systems planning at Dallas Area Rapid Transit. Prior to joining DART, he was a transportation planning specialist for the Greater Cleveland Regional Transit Authority and comes to CUTR as a registered engineer with 12 years of experience in transportation planning, management, research and evaluation.

He has a Ph.D. and an M.S. in civil engineering from Northwestern University.
CIVIL ENGINEERING

MELVIN W. ANDERSON, P.E., has served as a member of the Tampa Citizens Interstate Advisory Committee and the Tampa Bay Regional Planning Council. He specializes in hydraulics, culverts, water resources, systems analysis, and fluid mechanics. Ph.D., Carnegie-Mellon University.


J. THOMAS FRANQUES, P.E., specializes in hydraulics, drainage, water resources, transportation surveying and systems analysis. Ph.D., Louisiana State University.

STANLEY C. KRANC, P.E., specializes in bridges, fuel combustion, aerodynamics, and fluid dynamics. Ph.D., Northwestern University.

ROBERT J. MURPHY, P.E., specializes in air pollution control and hazardous waste disposal. Ph.D., University of Oklahoma.

LARRY W. OLINE, P.E., specializes in bridge inspections, shock and vibration and computer aided design of structures. Ph.D., Georgia Institute of Technology.


ALBERTO A. SAGUES, P.E., is conducting materials research for the FDOT. He specializes in metallic and high temperature corrosion, mechanical wear, embrittlement of alloys and aqueous environments. Ph.D., Case Western Reserve University.

RAJAN SEN, P.E., specializes in bridge design, testing and analysis, dynamic response of structures, prestress concrete and dynamic behavior of piles. Ph.D., State University of New York.

INDUSTRIAL ENGINEERING

CHAIRMAN PAUL GIVENS specializes in management, small business development, and productivity and quality enhancement. Ph.D., University of Texas.

S.K. KHATOR, P.E., conducted CUTR's transportation CPM/PERT seminar. He specializes in simulation, computer applications and facilities design. Ph.D., Purdue University.
ECONOMICS

JOSEPH S. DeSALVO specializes in urban and regional economic analysis, and the economic perspective of regional transportation. Ph.D., economics, Northwestern University.

GREGORY L. MILLER is the director of the Center for Economic and Management Research at USF. He has assisted CUTR in reviewing several rail transit studies. Mr. Miller holds a master’s degree in economics from Florida State University.

COMMUNICATIONS

MICHAEL G. GARKO conducted CUTR’s Mass Transit Corridor Alternatives Analysis Usage Survey for Hillsborough County. He specializes in survey research and communications theory. Ph.D., Florida State University.

LOYD PETTEGREW conducted CUTR’s Mass Transit Corridor Alternatives Analysis Usage Survey for Hillsborough County. He earned a Ph.D. in speech communications/psychology from the University of Michigan and specializes in organizational communications.

PUBLIC ADMINISTRATION

SUSAN MacMANUS specializes in public administration and political science. Ph.D., political science, Florida State University.

GEOGRAPHY

JAMES EFLIN specializes in urban and economic geography. He has a Ph.D. in geography from the University of Washington.

ANTHROPOLOGY

DONALD C. MENZEL specializes in environmental public administration and growth management and has a Ph.D. in political science from Pennsylvania State University.

ALVIN W. WOLFE specializes in applied anthropology, urban anthropology, and interorganizational networks. He earned a Ph.D. at Northwestern University in anthropology.
D. SCOT LEFTWICH, of the University of Central Florida, Orlando, is currently collaborating on the Relative Congestion Analysis with CUTR. He is an associate professor for the College of Engineering at UCF. Dr. Leftwich holds a Ph.D. in civil engineering from North Carolina State University.

L. DAVID SHEN, of Florida International University, is reviewing the downtown people mover system in downtown Miami. As a result of this research, Dr. Shen will develop a proposal for funding to the Urban Mass Transportation Administration for further study of automated people movers. Dr. Shen is an assistant professor at FIU. He holds a Ph.D. in civil engineering from Clemson University.

ANDREW A. DZURIK, of Florida State University, is conducting CUTR’s “Evaluation of the Process Used to Estimate the Effects of Developments of Regional Impact.” He is a professor at FSU. Dr. Dzurik holds a Ph.D. in regional planning from Cornell University.
CUTR INNOVATIONS
The Florida Transportation Commission was requested by the Florida Legislature to evaluate funding sources and methods of allocation to public transit systems that are operating in the state. The Commission, in turn, asked CUTR to serve as staff in preparing the reports, briefing papers and in advising the Commission during deliberations.

Part I: Capital and Operating Requirements

This report presents the 10-year projection of transit needs contained in the state’s Strategic Transportation Plan and a five-year projection prepared by CUTR that is based on data from Florida’s metropolitan planning organizations (MPOs), transit agencies, and the FDOT. Alternative methods of distributing the cost of transit among the various funding sources are also outlined.

The study begins by summarizing the services and funding sources of the 19 public transit systems in the state’s urban areas and the specialized transit systems for the “transportation disadvantaged.” It then projects several funding scenarios based on different levels of state commitment to transit.
Part II: Allocation of State Financial Assistance

This report describes methods of allocating state financial assistance among transit systems. It outlines different approaches to allocating state aid and describes variables, such as efficiency, that can be used in allocation formulas, which distribute the funds among the local areas.

Questions of how to equitably and most efficiently spend state money are raised and potential alternatives are suggested.

TRANSPORTATION DEMAND MANAGEMENT IN FLORIDA
Sponsor: Florida Governor’s Task Force on Urban Growth Patterns

The Governor’s Task Force on Urban Growth Patterns is charged with developing recommendations to the Governor and the Florida Legislature that will ultimately result in an efficient and well-planned urban development pattern. The Task Force is considering a range of measures to manage growth including the techniques discussed in the Transportation Demand Management (TDM) report.

This report reviews TDM techniques being used across the nation and state, pointing out methods of implementation and degrees of effectiveness. The techniques outlined are parking management, ridesharing, park and ride services, shuttle services, high-occupancy vehicle lanes, vehicle restrictions, alternative work hours, pedestrian access to transit, and employer subsidies to transit riders.

The report concludes by suggesting what TDM techniques could best be implemented in Florida. Demonstration projects are also suggested as potential pilot programs around the state.

The Task Force has considered the proposals in this report while formulating recommendations to the Governor and Legislature.
As growth continues to strain Florida's budget and already congested highways, officials are investigating alternative transportation modes and funding techniques through incentives to private industry. The proposed Florida High Speed Rail is one project for which two firms have made proposals to privately fund and operate a partially elevated rail system from Miami to Orlando to Tampa.

The Environmental Planning and Advisory Committee (EPAC) was established to review environmental issues related to the applicants' proposals and to advise the Commission of its concerns. CUTR is providing organizational and staff assistance. EPAC members are formulating their comments and have held public meetings in Tampa, Orlando, and Hialeah to obtain citizens' opinions and to answer questions on the project.
Factors Related To Transit Use
Sponsor: Urban Mass Transportation Administration

Attitudes Toward Public Transportation

Major Advantage of Going to Work by Car
- Can Leave Anytime: 42.0%
- Takes Less Time: 32.2%
- No Waiting: 7.1%
- Costs Less: 9.8%
- Other: 8.9%

Major Advantage of Taking Public Transportation
- Costs Less: 17.9%
- No Advantage: 23.5%
- Reduces Congestion: 14.0%
- No Parking Worries: 13.8%
- Don’t Need Car: 8.4%
- Less Time: 8.4%
- Other: 16.2%

People’s attitudes toward using mass transit are important to consider when implementing improvements to an existing service or starting a new one. Especially during times of dwindling federal assistance to mass transit systems, state and local planners, and decision makers must become more responsive to the public’s wishes in order to make their dollars count.

A telephone survey of 4,000 people who have access to transit in 17 U.S. metropolitan areas was analyzed by CUTR. The 86 “attitude” questions were designed to establish which variables make transit attractive or undesirable, and what makes driving a vehicle alone more or less attractive than transit.

Approximately 42 percent of those who drive to work alone reported they do so because of the flexibility this allows in their schedules. Still, half of those people said they would consider switching to mass transit if it were made flexible and convenient enough to meet their needs.

Of those who choose to ride public transportation, 82 percent work in central cities. Parking considerations played the most important role for choosing transit. Close to 27.5 percent of the people responding, who own cars but do not drive them, said they do so because the cost of parking is too high, while 23.9 percent reported no place to park.

Major implications from the study indicate that either schedule flexibility or time savings are seen as the major advantages and disadvantages of both private vehicles and the bus. Clearly, these areas should be concentrated on by planners and marketing experts when trying to improve ridership on public transportation.
A regional ridesharing brokerage service is being established by CUTR for Hillsborough, Pinellas, Pasco and Hernando counties under the Florida Department of Transportation’s (FDOT) Commuter Assistance Program. The purpose of creating a regional ridesharing system is to promote various alternative transportation services under one umbrella. The Tampa Bay Commuter Assistance Program (TCAP) is one of the three brokerage systems being developed in Florida’s major urban areas.

The four counties, the FDOT and CUTR began meeting in October of 1988 to discuss the structure of the organization, how it would be implemented and funded. Seven alternative organizational structures have been analyzed. With input from local governments, a decision on organizational structure will be made shortly.

The three organizational alternatives currently being considered are:

A Private Non-profit Commuter Assistance Office - A private non-profit organization would be established with the sole purpose being to organize and operate a regional commuter assistance program. Guided by a board of directors consisting of representatives from the public agencies and the private sectors, a staff dedicated solely to this program would implement the project.

Contracting Services Out to a Private Company - The private firm would be responsible to either a board representing each of the local agencies or directly to the FDOT.

Regional Program Housed within the Hillsborough Regional Transit Authority (HART) - If this alternative is chosen, the rideshare director would be responsible to a board of directors, consisting of the involved public agencies and representatives of the private sector. The program would be housed at HART, utilizing its facilities, while maintaining some of its autonomy by being responsible to a separate board from that of the transit agency.
Santa Rosa Entrepreneurial Transit
Sponsors: Santa Rosa Transit, Inc.
Urban Mass Transportation Administration

The objective of Santa Rosa Transit, Inc., which was recently awarded an UMTA Entrepreneurial Services Challenge Grant, is to be self sufficient within one year of implementing a new bus service in the Milton area. This project may serve as a statewide model in promoting private transit operations under the Florida Intrastate Entrepreneurial Services Technical Assistance Program (FIESTA) once it is operating in the summer of 1989.

CUTR provided technical assistance to
Santa Rosa County Transit, a private firm, in developing and obtaining the Section 3 grant, which will help the company defray the start-up costs of leasing four vans for the service. The vans will be operated on a demand-responsive system.

The four 19-passenger, radio equipped vehicles will be leased for the initial pilot program. Once established, Santa Rosa Transit plans to expand service to include four fixed routes and one demand-responsive passenger van.

Orlando Park and Play
Sponsor: City of Orlando

As congestion during Orlando’s peak period continues to intensify and a parking shortfall of 2,000 central business district (CBD) spaces is projected by 1990, the city is developing innovative transportation demand management techniques to help alleviate the problem. The Orlando Park and Play garage, or “Meter Eater II,” was designed to meet the waiting list of people who have requested parking in the “Meter Eater I” park and ride lot located on the northwest fringe of the business district.

Since convenience is one of the major factors in encouraging commuters to rideshare or take a bus, this proposed $8.3 million garage will also house a day care center so parents do not have to make an extra stop on their way to and from work. CUTR assisted the city in applying for a $6.2 million Section 3 UMTA Grant to build the 1,000 vehicle garage immediately adjacent to “Meter Eater I.” Shuttle service between the garages and the downtown area, which currently operate full during peak hours, will be expanded by the Tri-County Transit Authority.
Developers and employers are becoming more aware that they will need to share the responsibility of solving the transportation problems in Florida. Tampa Palms Development Corporation is creating a Transportation Management Association (TMA) to further its goal of building a well-planned community with a high quality of life for residents and businesses.

At the beginning stages of development, Tampa Palms currently has approximately 775 dwelling units and one office building but plans to eventually rival the size of downtown Tampa with housing, office, hotel and light industrial development. Since the TMA will grow with Tampa Palms, this will allow time for careful planning to find the organization and funding mechanisms best suited for preventing future traffic problems in the north Tampa area.

Plans for the Tampa Palms TMA are beginning to get underway with meetings to establish the developer’s goals, potential funding and membership organization. A commuter survey of Tampa Palms’ residents has been conducted and analyzed as a basis for the planning process.
The newly formed Westshore Alliance, an association of businesses in the dense office concentration of southwest Tampa, has named transportation as one of its main priorities. Congestion in the Westshore area is one of the major reasons the Alliance re-formulated its primary goal to improving the quality of working in the area with public-private partnerships. The Alliance is looking toward company-sponsored car and van pools, alternative work hours, day care, improving mass transit, pedestrian amenities and other transportation demand management measures which will be developed under the TMA.

Meetings between the Westshore Alliance and CUTR are underway to further establish goals, funding and organization of the TMA.

Lufthansa Airlines is interested in expanding its service in Florida to either the Orlando or Tampa area. This report outlined data on international, European, and West German arrivals in the U.S., and in the Tampa and Orlando regions. Information on how further data can be gathered to assist Lufthansa in making this decision and the problems associated with this undertaking were discussed.

A brief overview on what European tourists consider desirable in a vacation location and a list of factors affecting their travel to the U.S. and Florida were presented.
In order to assess efficiency of transit systems, a group of other systems of similar size and characteristics can be compared along a range of performance indicators. The "Peer Review" of the Hillsborough Area Regional Transit Authority (HART) consisted of 16 peer agencies whose performance were compared according to 18 indicators. This evaluation may serve as the state model for future peer group reviews.

The number of vehicles the other agencies operated ranged from 48 to 198 in 1985, while HART had 135. The 18 indicators were chosen from nine different categories, from describing the efficiency (cost-related performance) to the effectiveness (service-related performance) of HART and the other agencies.

HART scored high in efficiency for vehicles operated in maximum service, average speed, system efficiency, labor utilization, vehicle utilization, maintenance effectiveness, and administration effectiveness.
This two-part Technical Outreach Program (TOP) is being set up to provide technical assistance to Florida transit agencies in implementing transit drug safety programs and to educate professionals and decision makers on innovative methods of improving suburban mobility.

The purpose of the Drug Safety Program portion of the project will be to create a system which maximizes the state’s investment in transit by providing transit professionals with an up to date information source to improve knowledge, expertise and training for implementation and management of drug programs for transit agencies. A two-day seminar will be held in Tallahassee to discuss the scope and requirements of federal drug safety laws with UMTA, FDOT and Florida transit managers.

The Drug Safety Program will also establish two regional comprehensive anti-drug abuse pilot programs for transit agencies. These models will be set up in two large transit agencies which will be trained to provide assistance, in turn, to smaller transit operators in that geographic region. FDOT will use the results of these two projects to implement other regional and rural programs around the state on an ongoing basis, continuously disseminating information on legislation, policy, and training materials.

Under the “Suburban Mobility” portion of the TOP program, conferences will be held around the state to educate professionals and decisions makers on innovative ways to solve transportation problems. The purpose of these sessions is to stimulate dialogue between the groups with the aim of eventually solving their problems.
The purpose of the Suburban Mobility Initiative Strategic Planning Grant is to find multi-modal solutions to suburban mobility problems. As in most of the country over the past 20 years, Tampa Bay area suburbs have emerged not only as bedroom communities but also as major employment centers with over 70 percent of the region’s office space now located outside of the downtown. This renders the traditional hub and spoke transportation service model invalid.

To find answers to the new problems brought about by suburbanization, CUTR and the Hillsborough Regional Transit Authority (HART) are teaming up to develop innovative solutions. The program will be developed under the following steps.

* Establishment of the Tampa Bay Area SMI - Members of an advisory team will be selected from suburban areas to create a forum for an exchange of ideas between the public and private sectors to identify problems and develop solutions.
* Educate the private and public sector decision makers about the problems the area is facing and possible solutions.

* Identify the potential for private entrepreneurial services to meet specialized market demands.

* Plan transportation demand management strategies, such as ridesharing, parking management, and alternative work hours, with the emphasis on long term answers. These area-wide and site specific solutions will be targeted toward the best utilization of the public and private sectors to implement these strategies.

* Build a consensus in the community regarding methods of implementation based on feasibility studies, which evaluate the potential success of each transportation demand management strategy.

* Develop and disseminate model plans for employers or retailers to put the feasible measures into practice.

* Provide technical assistance for Tampa Bay area employers and developers to enact these measures.

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**Investment In Fixed Guideways**

*Sponsor: Florida Department of Transportation*

This report provides analysis and recommendations on key issues for the FDOT to consider in establishing a policy for future investments in fixed guideway projects. Working in conjunction with the FDOT staff, this effort will provide technical support in the development of a policy to determine the State's role in providing financial resources for fixed guideway projects as outlined in the following steps.

* Defining fixed guideway project types
* Developing evaluation criteria
* Specifying required planning process steps and the decision sequence
* Determining how coordination with UMTA procedures should be handled and suggesting funding allocation procedures
* Possibly using the federal funding selection process as a model
* Rethinking the role of the transportation systems planning process.
The public’s perception and preferences toward the rail transit technologies now under study in Hillsborough County, Florida, are vital to consider while weighing the alternatives and making a decision to choose one. A survey team made up of CUTR and Bechtel Civil, Inc., telephoned 865 randomly selected residents of Hillsborough County (519 responded) to determine their opinions and gather information on:

* Transportation problems and rail transit in the county.
* Elevated and ground transit.
* Demographic information concerning where the respondents live and work, their income, their age, and the number of vehicles they own.

Hillsborough County residents showed an unquestionable preference toward elevated rail as opposed to a ground system. The study did reveal somewhat of a demographic gap between mode preferences. Those preferring the elevated system were significantly more likely to be males, 45 years of age and older, earning $20,000 or more annually, and having more than a high school education. On the other hand, those preferring a ground system were significantly likely to be females, between the ages of 17 and 44, earning from $9,999 up to $19,999, and having 12 or less years of formal education.
The downtown people mover (DPM) system is an innovative new technology in urban public transportation. The purpose of this research grant on Miami's DPM experience is to lay the groundwork for a more detailed report that will determine how Automated People Movers can best be utilized to solve ground transportation problems within major airports.

This current grant from CUTR supported FIU's presentation, "Evaluation of the Impact of an Automated People Mover System in a Downtown Environment," at the Second International Conference on Automated People Movers in Miami in March of 1989. The final report is scheduled for completion by June 30, 1989.

One attempt the State of Florida has made to deal with overwhelming growth-related problems is the Land and Water Management Act, which mandates that large scale developments undergo a review process based on detailed impact statements prepared by developers. A key section requires a detailed transportation analysis which is reviewed by the FDOT and local planning agencies.

The focus of this grant from CUTR is to identify the procedures and criteria used by these agencies and relationships between large scale land developments and public transportation systems. The analysis is being conducted by reviewing state guidelines, surveying urban area planning departments, and following up through phone calls and personal interviews. A final report is expected during the summer of 1989.

This preliminary study will be applied in developing procedures for evaluating impacts of proposed projects and to pursue funding for a major joint research project between CUTR and FSU.
Relative Congestion Analysis
Conducted With the University of Central Florida

This project will review data that will be used by agencies in Florida for transportation planning with the Florida Standard Urban Transportation Model Structure (FSUTMS) computer model. The University of Central Florida also will advise CUTR on determining levels of service for roadways and on operating FSUTMS.
The Florida High Speed Transportation Conference, held March 7 and 8, 1989, in Tampa, brought together high speed rail experts from around the world to inform transportation professionals and the public on state of the art technology, financing and legal, environmental and developmental aspects of the Florida rail programs. Over 150 professionals and press attended the two day conference.

Among the speakers were Werner Menden of the German Ministry of Research and Technology, Florida High Speed Rail Commission Chairman Malcolm Kirschenbaum and CUTR Director Gary Brosch. A panel of experts also discussed the opportunities and constraints of the proposal with questions and answers at the conclusion.

The purpose of the event was to bring together all who are interested or will be affected by the projects with the experts to create a dialogue and to answer questions.
Conferences

Suburban Mobility Conferences
Sponsor: Urban Mass Transportation Administration

Conferences have been held in Tampa, Orlando, and Broward counties to bring together decision makers and professionals to "brain storm" on ideas to solve transportation problems in their communities. Hundreds of people participated in each of the three sessions where the emphasis was on creating public/private partnerships. Some of the innovative solutions suggested included establishing transportation management associations, policies to encourage day care centers and lunch facilities near work sites, and creating more pedestrian and bicycling oriented environments. Private sector representatives suggested reducing the number of required parking spaces for new buildings.

Each of these seminars will be followed up with either further meetings, written reports or by implementing projects as a means of spurring on future action and interest.

Short Course on Project Management
Sponsor: Florida Department of Transportation

In conjunction with the Industrial Engineering Department at USF, CUTR assisted in conducting a two-day Project Management course for approximately 20 FDOT managers. Course material covered project scheduling, cost control, cost optimization, resource allocation, project monitoring, network analysis and other strategic management topics.

A detailed breakdown of the seminar topics follows.

* Project Planning: Activities and events, drawing of a network, dummy activities.
* Project Scheduling: Time estimation, earliest/latest completion time, project duration, slack computation, critical paths identification.
* Cost Control and Optimization: Direct/indirect costs, time/cost trade off, work breakdown structure, cost control.
* Case Exercise.
* Resource Allocation and Leveling: Allocation of manpower and equipment to minimize project duration, resource leveling, multi-project scheduling.
* Case Exercise Computer Packages.
* Project Monitoring and Control.
* Strategic Management: Implementation of project, management techniques, information systems.
Innovative Financing Seminar
Sponsor: Federal Highway Administration

In response to current budget constraints, many issues are being raised on how to find alternative funding for highways and mass transit projects. The Federal Highway Administration (FHWA) sponsored a workshop in Sacramento, California, where CUTR instructed professionals on non-traditional techniques for funding transit and urban highway services.

This seminar was designed to present state-of-the-art funding to public officials and to facilitate their efforts in determining whether these sources will be useful in meeting their transportation needs through the following methods:

* Use of non-traditional revenue sources
* Strong involvement of private sector
* Measures being used for the first time in transportation
* Innovative public/private partnerships

The Innovative Financing Seminar is summarized in the following categories.

* Taxes
* Assessments
* Fees
* Negotiated Investments
* Private Donations and Initiatives
* Use of Property and Property Rights
* Private Development and Provision of Facilities and Services
* Toll Financing
* Developing Rapid transit
A transportation concentration for engineering and multi-disciplinary students is being developed to expand the engineering transportation program that began at USF this year. The program offers electives in transportation for undergraduate, master's and doctorate degree candidates. Undergraduate courses include transportation engineering, transportation route and site engineering, and transportation facility design. Graduate offerings for the master's and Ph.D. programs include traffic studies and engineering, urban transportation planning and economics, geometric design, and traffic signal computer and simulation models. Additional graduate level course work is offered.

CUTR's staff also is preparing curriculum to teach urban transportation planning and transportation-related courses as a part of the USF transportation concentration.

As a means of encouraging student interest in transportation, CUTR participated in Engineering Expo at USF by giving a speech on "Being Innovative," and supported other activities.

We are also sponsoring the first USF chapter of the Institute of Transportation Engineers of which CUTR graduate assistant Vicki Ripper is the president. The chapter has taken a field trip to a local engineering firm to hear a report on an interstate project and has had a guest speaker on rail transit. The group meets monthly.

This expansion will allow USF students in other disciplines, such as economics or public administration, to also earn a transportation concentration. This proposal is currently being reviewed by the College of Engineering and university administration.
Community and Professional Involvement

Presentations

* Florida Rideshare Conference, Tampa, Florida, “Public/Private Partnerships in Ridesharing.”
* National Defense Transportation Association, Tampa, Florida, for National Transportation Week, “Advances in Multi-Modal Transportation.”
* City Council Special Workshop, Tampa, Florida, “Innovative Financing for Transportation.”
* Conference on Public Transportation in the Twenty-First Century, San Diego, California, “Innovations in Transportation Service.”
* Inauguration of Francis T. Borkowski as President of USF, Tampa, Florida, “Transportation in the Twenty-first Century.”
* Testimony to the Florida Legislature on “Theory, Methods and Practice of Innovative Financing of Urban Transportation Projects,” Tallahassee, Florida

Seminars

* Sixty-seventh Annual Transportation Research Board, Washington, D.C.
* Fourth Annual Symposium of the Urban Mass Transportation Administration, New Orleans, Louisiana (Expert panel member)
* International Conference of the Institute of Transportation Engineers, Tampa, Florida (Presided at the session, “Managing Traffic Impact from Site Development”).
* Annual Meeting, Council of University Transportation Centers, Research Triangle,
Community and Professional Involvement

North Carolina
* Fifth International Convention on High Speed Rail, High Speed Rail Association, Washington, D.C.
* Opening of Gold Coast Commuter Services, Ft. Lauderdale, Florida
* Transportation Research Board’s joint planning and finance committee meeting, Charlotte, N.C., (Participated in program planning for Transportation Research Board’s annual meeting).
* Transportation Research Board’s meeting, “Transportation in the Twenty- First Century,” Washington, D.C.
* Road extension project, Plant City, Florida
* Chaired Panel Discussion “Issues in Mobility in the Twenty-First Century”, Tampa, Florida
* Tampa Parkway Association Impact Fee Seminar (Panelist)
* Popular Transit Alliance, St. Petersburg, Florida, (Symposium Moderator for St. Petersburg - Pinellas County Guideway Transit Study Technical Symposium)
* American Planning Association Conference, Florida Chapter
* Hillsborough County Governance Conference, Plant City, Florida (Facilitator/discussion leader)
* Florida Coordinating Council on the Transportation Disadvantaged, Tallahassee, Florida

Professional Memberships

Membership in professional and civic organizations also provides staff with visibility in the field and often generates research opportunities. CUTF’s staff is associated with the following organizations:

* Transportation Research Board
* National Society of Professional Engineers
* Tampa and Ybor City Street Railway, Inc.
* Tampa Impact Fee Committee
* Florida Committee of 100
* Hillsborough County Metropolitan Planning Organization’s Study Management Team for the Rail Transit Study
* Institute of Transportation Engineers
* Council of Urban Transportation Centers
* American Society of Civil Engineers
* American Planning Association
* Greater Tampa Chamber of Commerce
* Association for Commuter Transportation
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