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Center for Urban Transportation Research

Civic Center TMO Commuter Characteristics Study – Executive Summary

Prepared for:

Miami Urbanized Area Metropolitan
Planning Organization (MPO), and

the Miami Civic Center Transportation
Management Organization (CCTMO)



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Prepared by:

*Center for Urban Transportation Research
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Executive Summary

Introduction

This research project was undertaken to assist the Civic Center Transportation Management Organization (CCTMO) in the development and selection of potential TDM strategies for commuters within the TMO boundaries. The Civic Center is a major employment and activity center located in Greater Miami with many prestigious medical teaching, research, and treatment facilities; educational institutes; and government offices. The project consisted of:

- collecting data on commuter travel characteristics and attitudes toward alternative commute options,
- developing a commuter characteristics data file,
- assimilating employer, employee, and transportation data from various sources,
- identifying potential TDM strategies, and
- developing a plan to implement the recommended strategies.

The study builds on previous work conducted by the CCTMO, Gold Coast Commuter Services (GCCS) and several consultants and was funded by the Miami Urbanized Metropolitan Planning Organization (MPO), hereafter referred to as the MPO. The Center for Urban Transportation Research (CUTR) conducted the study which was accomplished through the collaborative efforts of various agencies and individuals including the CCTMO, Gold Coast Commuter Services (GCCS), the MPO, the Florida Department of Transportation (FDOT), and CCTMO member representatives.

This research accomplished several objectives. One objective was to obtain a better understanding of the travel characteristics of employees, students, and visitors in the CCTMO service boundaries, and determine factors that may encourage commuters to consider alternative transportation modes. This objective was accomplished through on-site surveys.

A second objective was to collect data on CCTMO member employers, such as employee counts, employer provided transportation benefits, and employee zip codes, and the Civic Center area such as available service facilities and existing transportation facilities. This objective was accomplished by assimilating previous data collected, and information provided by CCTMO employer representatives, the MPO, and the CCTMO.

A third research objective was to develop a commuter characteristics data file that can be used to target future TDM measures for CCTMO members. This objective was accomplished by entering survey data into a computer database software program. This computer file provides baseline data for future commuter survey comparisons.

A final research objective was to prepare an action plan to implement short and long-term TDM strategies targeted toward commuters traveling to the Civic Center area. This plan includes goals and objectives of TDM strategies and an evaluation procedure to measure overall effectiveness of the recommended strategies. This objective was accomplished using the results of the literature review and survey in conjunction with other pertinent transportation data collected during the study. The complete study results is contained in the report titled, *Civic Center TMO Commuter Characteristics Study*, and can be obtained through the MPO.

Literature Review

The literature review consisted of examining previous Civic Center transportation related studies, literature pertaining to TDM plan development, and previous Civic Center surveys.

The literature review provided valuable information concerning existing transportation issues in the Civic Center area. This information includes pedestrian issues, traffic volumes, transit availability, parking availability, and vehicle occupancy rates. In addition, review of literature pertaining to TDM provided an important basis for developing the action plan. This basis included an existing TDM plan and TDM guidelines. It is important to note that the literature review showed that no trip reduction program or TDM plan has been developed for the Civic Center area.

Data Collection

Data were collected on the CCTMO, TMO member organizations, employee counts, employee locations, parking, service, and transit facilities, and vehicle occupancy rates. These data were obtained from information provided by the CCTMO, the MPO, CCTMO member representatives, and previous data collection efforts.

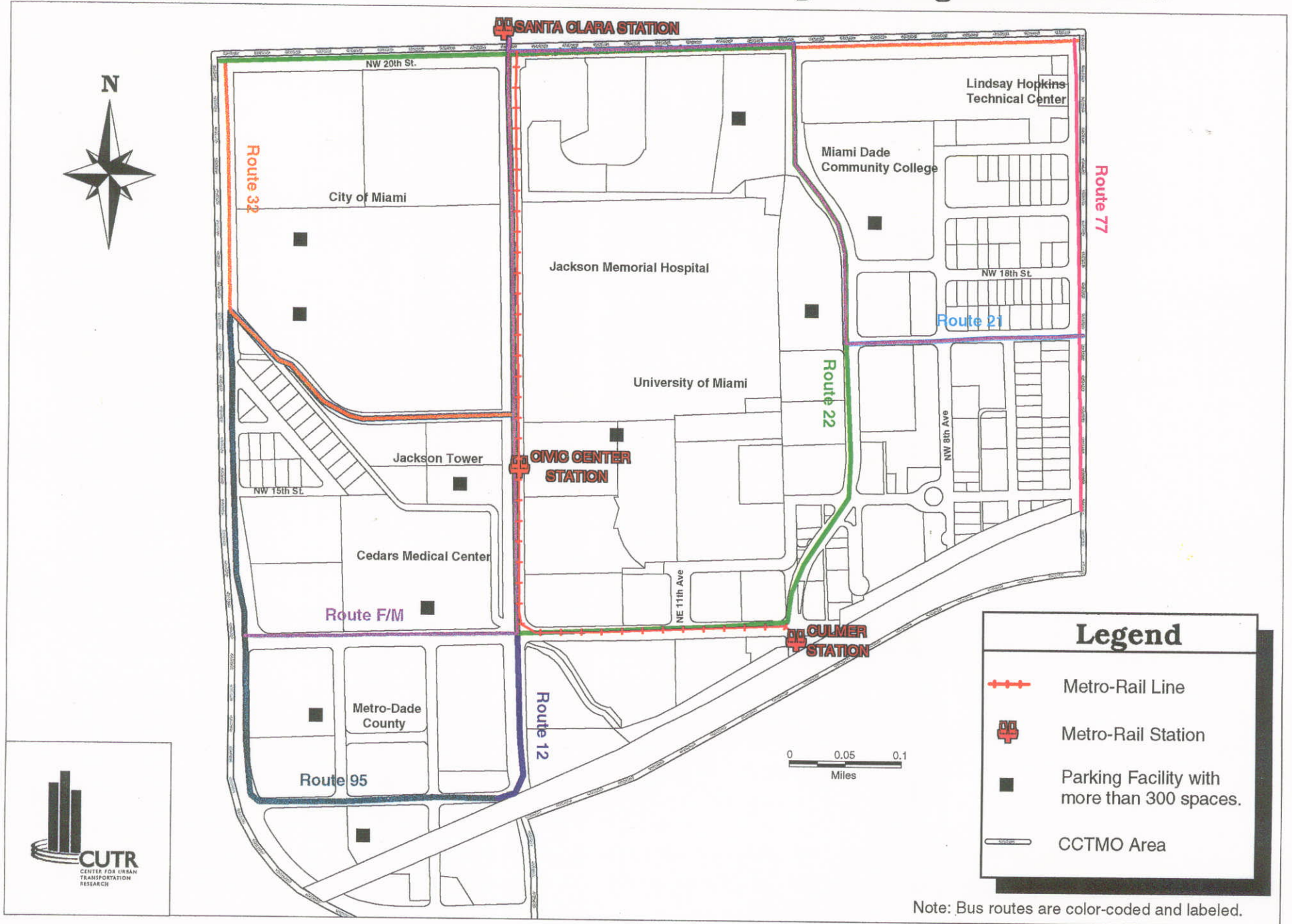
CCTMO Boundaries

Located in Dade County, Florida, the CCTMO service boundaries include State Road 836 (Dolphin Expressway) to the south, N.W. 20th Street to the north, N.W. 7th Avenue to the east, and N.W. 17th Avenue to the west. The perimeter of the service area totals 3.4 miles and the total area is 0.7 square miles. Figure 1 shows the CCTMO area, the location of CCTMO members within the TMO boundaries, and existing transit and parking facilities.

CCTMO Member Organizations and Employee Counts

The CCTMO is composed of seven employers with a combined employment of nearly 25,000. The largest employer in the Civic Center area is Jackson Memorial Hospital, which employs 8,000 persons. Lindsey Hopkins Technical Educational Center and the University of Miami Medical Center each employ another 5,000 persons. Two TMO members did not participate in the data collection and survey efforts, namely, Cedars Medical Center, and Lindsey Hopkins Technical Educational Center.

Figure 1: Civic Center Transportation Management Organization Area



Note: Bus routes are color-coded and labeled.

Figures and Tables Derived from Data Collection

The following figures and tables were derived from the data collection efforts. Please note that the table and figure numbers are not in sequence as they were taken directly from the final report. Table 2 presents information on the distance employees travel from home to the worksite for each employer and was derived using zip code data provided by the employers. Nearly 75 percent of the employees live within 5 to 20 miles of the Civic Center area. The largest percent of commuters (42 percent) live within 10 to 20 miles.

Table 2. Distance from Employee Home to the Civic Center by Employer

Distance from Home to Work	Employer									
	Jackson Memorial Hospital		State Attorney's Office		University of Miami Medical Center		Miami-Dade Community College		All Employees	
	#	(%)	#	(%)	#	(%)	#	(%)	#	(%)
0 to .99 mile	300	3.7	7	0.5	100	2.1	28	1.2	436	2.6
1 to 4.99 miles	1,645	20.2	112	8.5	892	18.7	429	18.6	3,078	18.6
5 to 9.99 miles	2,266	27.9	501	38.2	1,552	32.5	831	36.1	5,150	31.2
10 to 19.99 miles	3,416	42.0	657	50.1	1,977	41.4	897	39.0	6,947	42.0
20 to 29.99 miles	439	5.4	30	2.2	227	4.7	106	4.6	801	4.8
30+ miles	61	0.8	4	0.3	33	0.7	11	0.5	109	0.7
Total	8,127	100.0	1,311	100.0	4,781	100.0	2,302	100.0	16,521	100.0

Source: Civic Center TMO members.

Table 3 displays the 1996 parking supply and demand for the University of Miami, Jackson Memorial Hospital, Cedars Medical Center, Veterans Administration Medical Center, Miami-Dade Community College, Professional Arts Center, and Dominion Tower.

Table 3. Parking Supply and Demand – Civic Center Area

Institution	Peak Hour Demand	Actual Parking Supply	Recom. Parking Supply	Deficiency per Actual Supply	Deficiency per Recom. Supply
University of Miami/Jackson Memorial Hospital	8775	7228	9328	1547	2100
Cedars Medical Center	1372	1002	1462	370	460
Veterans Administration Medical Center	1683	1288	1780	395	492
Miami-Dade Community College	930	550	977	380	427
Professional Arts Center	311	272	311	39	39
Dominion Tower	219	219	219	0	0
Total	13290	10559	14077	2731	3518

Source: Desman and Associates. Miami Medical Center Parking Study. (1992)

Survey Results

Obtaining data on how employees, students, and visitors travel into and out of the Civic Center area was essential for the development of the Civic Center TDM plan. The data were collected through on-site surveys administered to employees and students who work and attend school in the Civic Center area. The purpose of the surveys was to gather information about commuter travel behavior, employer-based TDM programs, and attitudes toward using alternative transportation modes.

Figures and Tables Derived from Survey Results

Demographic Information

A number of questions were asked in order to establish demographic profiles of Civic Center commuters.

Age, Gender, and Occupation

Figure 9 contains a demographic profile of all survey respondents. As indicated, a plurality of commuters falls into the 25 to 34 age group (30.8 percent) and the 35 to 44 age group (29.9 percent). Approximately three-fourths of all respondents (76.8 percent) were female. A majority of respondents indicated working in a professional capacity (34.7 percent), with clerical (32.7 percent) and students (9.5 percent) representing the second and third largest occupational groups respectively.

Trip Origin

Respondents were asked to indicate their home zip codes on the survey form. Figure 10 illustrates the distribution of trip origins among survey respondents. Zip code zones shaded red have the greatest concentration of survey respondents while white zones indicate no survey respondents. As the figure indicates, the majority of survey respondents are dispersed throughout Dade and Broward counties.

Distanced Traveled in Daily Commute (One-Way)

Respondents were asked, "On a typical day, how many miles do you travel (one way) from your home to work?" Survey responses were recoded into seven categories and are presented in Figure 11. The mean number of one-way miles traveled to work is 17.1 miles. The majority of respondents (57.1 percent) travel 15 miles or less to work. However, 43 percent commute over 15 miles one way each day making these commuters excellent candidates for carpool and vanpool programs.

Figure 9. Demographic Profile: All Survey Respondents

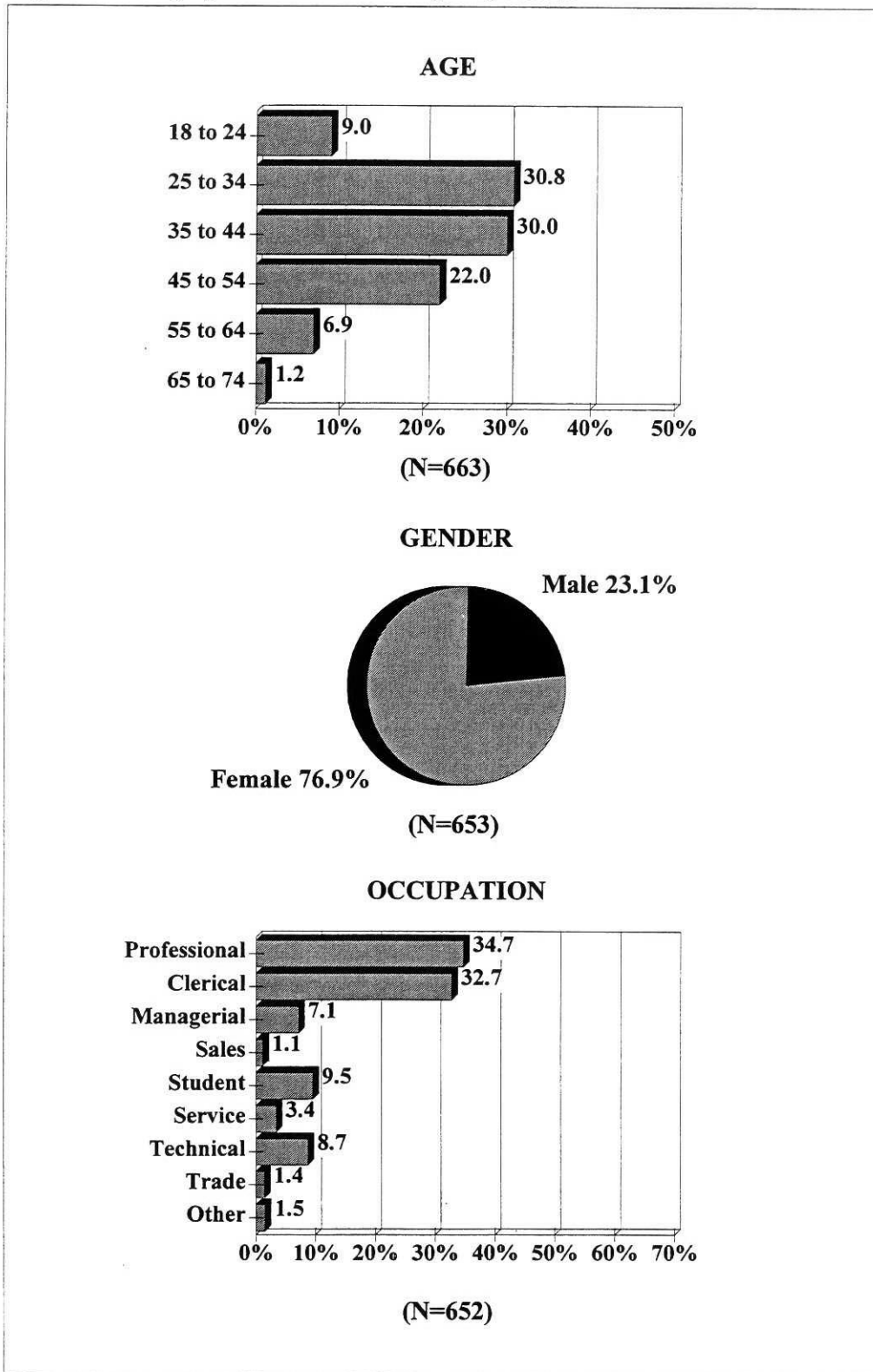
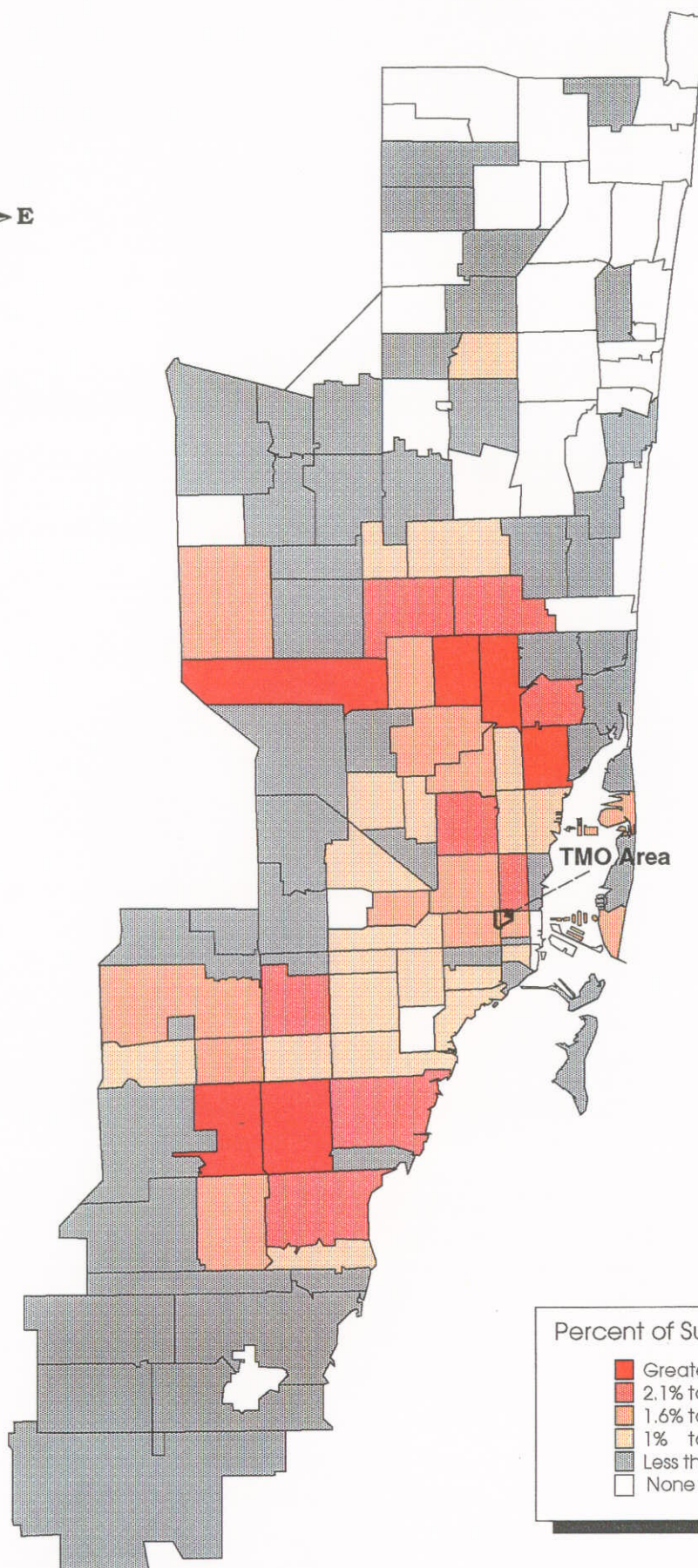


Figure 10--Survey Respondent Trip Origins

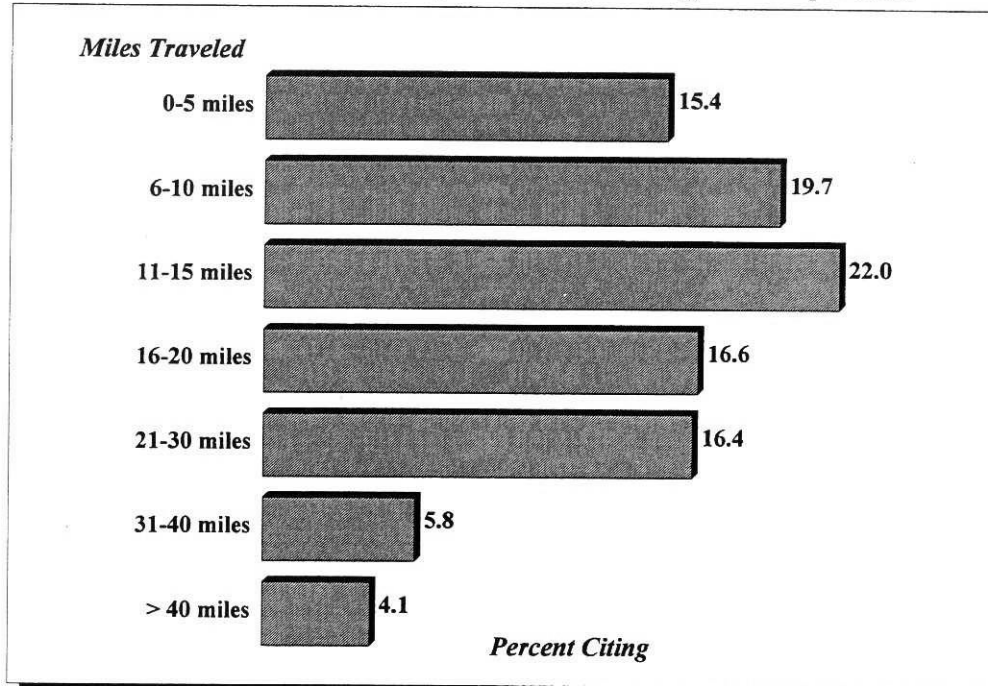


Percent of Survey Respondents

Greater than 2.6%	(6)
2.1% to 2.5%	(8)
1.6% to 2%	(12)
1% to 1.5%	(20)
Less than 1%	(51)
None	



Figure 11. Distance Traveled in Daily Commute (One Way): All Respondents



Note: Respondents were asked: "On a typical day, how many miles do you travel (one way) from your home to work?"

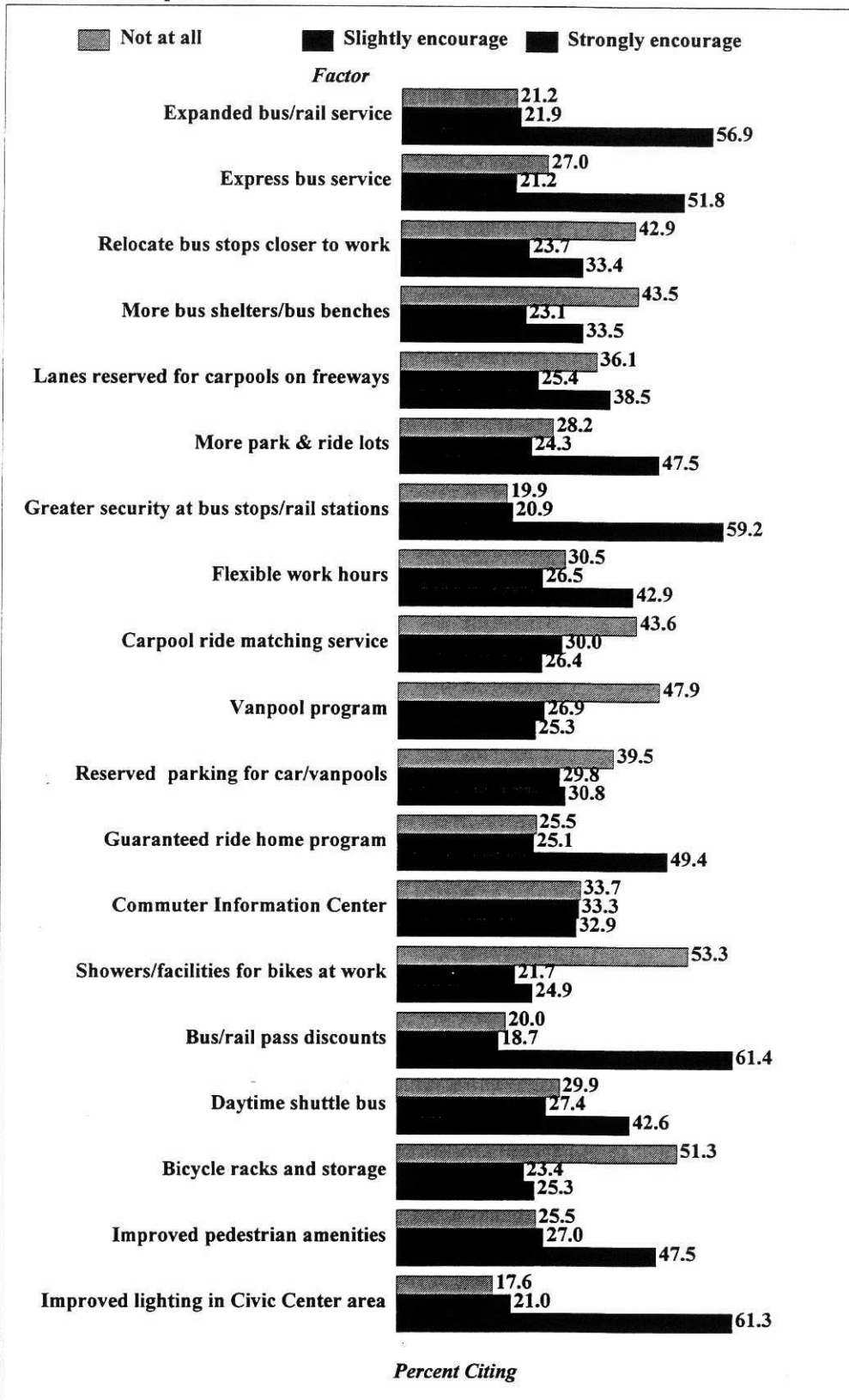
Extent Factors Encourage Use of Alternative Transportation Modes

Respondents were asked to indicate to what extent certain factors would encourage them to use alternative transportation modes (e.g. carpool, transit, bike, and walk). The factors can be largely grouped into three major categories: transit improvements/expansions, employer-sponsored programs and policies, and community-based improvements (i.e., improved pedestrian amenities and lighting, greater security, etc.) Factors that would *strongly* encourage commuters to use alternative transportation modes include (see Figure 19):

- Bus rail discounts (61.4 percent);
- Improved lighting in the Civic Center area (61.3 percent);
- Greater security at bus stops/rail stations (59.2 percent);
- Expanded bus/rail services (56.9 percent);
- Express bus service (51.8 percent); and
- More park and ride lots (47.5 percent)
- Guaranteed ride home in case of emergencies if participating in carpool/vanpool program (49.4 percent).

These results are expected especially considering that very few employers have such programs. However, these types of programs are vital components in the development of an area-wide commuter transportation program and require less capital investment than such strategies as building additional park and ride lots or expanding bus or rail services.

Figure 19. Extent That Factors Would Encourage Use of Alternative Transportation Modes: All Respondents



Note: Respondents were asked: "Here are some factors that influence decisions on how people commute to and from work. For each factor, please check in the box the column that best describes to what extent these factors would encourage you to use alternative transportation modes (e.g. carpool, transit, bike, walk)" Please check, Not at all, Slightly encourage, Strongly encourage.

Civic Center TDM Plan

The purpose of this Plan is to:

- Specify the marketing-related actions that the Civic Center TMO will take to achieve the objectives of Civic Center Transportation Management Organization (CCTMO).
- Provide the logic and rationale for the allocation of resources toward marketing-related activities.

The focus of the first year's action plan is primarily on personalized service through the operation of the CCTMO and, secondarily, employer outreach efforts. By establishing credibility with the ultimate customer -- the commuter -- the CCTMO will have a stable foundation for future employer outreach efforts.

Recommendations

CUTR recommends that the CCTMO develop and deliver the following TDM products to the specified target markets

Rideshare Matching and Carpool/Vanpool Services: The CCTMO services will be directed primarily to persons working in Civic Center area and secondarily to students. Vanpool efforts will be directed to commuters to the area who live more than 20 miles away.

Transit Services and Promotion: The CCTMO will serve to establish employer outlets for employees and students in the area, and, secondarily to County residents and the public.

Employer Outreach: The CCTMO will coordinate and promote TDM services primarily to employers (private and government) in the Civic Center area and, secondarily, to developers and leasing agents in the area. The CCTMO service area has an estimated 10 large (those with 100 or more employees) employers (see Table A-1).

Parking Demand Management: The CCTMO will be directed primarily at office building and corporate management personnel responsible for parking policies, and, secondarily, to commuters.

Program Evaluation and Monitoring

CUTR developed several tables to help the CCTMO relate actions to results. The tables were constructed to help the CCTMO identify actions, performance measures, current benchmarks, suggested targets, and contributing factors. Recommended actions include:

1. Within 2 months, develop overarching theme with a call to action. Use Gold Coast Commuter Service's "Hang Up Your Keys clip art.

2. Within 2 months, customize brochure on options, including transit routes and stations, with a call to action (e.g., ridematching survey and CCTMO phone number).
3. Within 10 months, develop “4-3-2-1 New Start” assistance program to subsidize the cost of up to 4 empty seats for new vanpool groups. Example: subsidize up to 4 empty seats for first month, 3 seats for the second month, etc.
4. Within 10 months, hold presentations with groups of employees who live over 20 miles away from work.
5. Within 2 months, develop “How to Form a Carpool” and “How to Form a Vanpool” guides. Distribute with all ridematching requests.
6. Within 6 months, develop a Civic Center Parking and Transportation Map with an insert on the current costs (update costs monthly). Package map in folder with commute alternatives (e.g., ridematching brochure, transit maps) to attract commuters, expose them to alternatives, and open the door to employers with employees who have “perceived” parking problems.
7. Participate in Gold Coast Commuter Services Guaranteed Ride Home program for existing transit riders, carpoolers, and vanpoolers.
8. Within 9 months, in coordination with transit and vanpool providers, develop employer-provided transit/vanpool subsidy program.
9. Within 6 months, develop customer retention strategy. Focus on personalized service and follow-up. Develop feedback system for commuters (e.g., post-paid return card). Design system and implement to receive, document and act on comments, complaints and compliments.
10. For those individuals who were helped, provide feedback to the employer how the CCTMO helped their employee.
11. Place former customers in an inactive file for future marketing purposes (e.g., new services).
12. Within 12 months, develop commuter recognition program to reward the desired behavior and generate publicity for the CCTMO.
13. Within 12 months, develop a program to encourage employers to offer incentives and support for bicycle and pedestrian programs.
14. Within 3 months, meet with area bike coordinators and obtain marketing materials for distribution through employers (include with Parking & Transportation Map packet)
15. Within 3 months, develop materials on telecommuting. Within 6 months, hold a workshop with on telecommuting.

16. Within 3 months, develop and distribute information on staggered work hour and flexible work hour programs to employers at the departmental level.
17. Develop schedule of arrivals and departures among employers to determine how to shave the peak period. Reserve opportunity for transit riders and ridersharers to shift schedules to accommodate transit schedules and pool partners.
18. Within 12 months, target a campaign to increase the frequency of alternative mode use to decrease the number of peak period vehicles per 100 commuters in order to increase the number of parking spaces available for visitors, patients, and clients.
19. Within 12 months, reduce traffic congestion in Civic Center area by fostering use of alternative modes to driving alone.
20. Within 6 months, develop a CCTMO task force to investigate the provision of security in and around bus stops/rail stations.
21. Within 12 months, produce "time contour" map showing travel times in 15 minute increments (up to 45 minutes) from various points in South Florida to the Civic Center area
22. Within 3 months, develop and distribute employer outreach marketing materials on TDM strategies and benefits to business.
23. Within 2 months, establish an employer outreach campaign to appoint and train Employee Transportation Coordinators (ETCs) to involve employers in mobility programs.
24. Within 12 months, increase the number of transit pass sells to member employers.
25. Within 6 months, conduct strategic planning/consensus building workshop to describe the problems and relay information of importance to area employers (security issues, pedestrian improvements, etc.)
26. Within 2 months, attend and participate in MPO meetings to provide input and guide development of the CCTMO program and services.
27. Within 12 months, solicit and obtain contributions from members and other employers in support of CCTMO products (e.g., Parking and Transportation Map and Travel Time Map).

■ Appendix A

List of Employers with 100 or More Employees – Civic Center Area

Table A-1 Major Employers in Civic Center Area

Business Name	Address	ZIP Code	Phone #	Contact Name	Employment
American Red Cross	1801 NW 9 th Ave	33136-1132	305/326-8888	Roger Svoboda	100-249
Bascom Palmer Eye Institute**	900 NW 17 th St	33136-1119	305/326-6196	Mary Lou Lewis MD	100-249
Columbia Cedars Medical Ctr*	1400 NW 12th Ave	33136-1003	305/325-5511	Ralph A Aleman	1,000-4,999
Dade County					
Circuit Court-Criminal*	1351 NW 12th St	33125-1644	305/547-4888	Leonard L Arnaiz	250-499
County Dept of Health*	1350 NW 14th St Bldg 7 Fl 3	33125	305/324-2400	Annie R Neasman	500-999
State Attorney*	1350 NW 12th Ave	33136-2102	305/547-0100	Katherine Rundle	500-999
Easter Seal Society	1475 NW 14th Ave	33125-1616	305/325-0470	Joan Bornstein	100-249
Jackson Memorial Hospital*	1611 NW 12th Ave	33136-1096	305/585-1111	Ira C Clark	5,000-9,999
Lindsey Hopkins Technical Ed*	750 NW 20 th St	33127-4692	305/324-6070	John Leavy	250-499
Miami-Dade Community College*	950 NW 20 th St	33127-4622	305/237-4000	Richard Schinoff	250-499
Slyvester Comprehensive Cancer**	1475 NW 12th Ave	33136-1002	305/545-1000	John Clarkson MD	1,000-4,999
United Cerebral Palsy Assn	1411 NW 14th Ave	33125-1616	305/325-1080	Joseph Aniello	250-499
Univ of Miami-Va Medical Ctr*	1201 NW 16th St # Nh207	33125-1624	305/324-3388	Marcelo Bendix MD	1,000-4,999
University Miami Neurological*	1501 NW 9 th Ave	33136-1407	305/547-6946	Roberto C Heros MD	100-249
University of Miami Project*	1600 NW 10th Ave # R48	33136-1015	305/243-6001	Mary Bunge	100-249
Veterans Medical Ctr	1201 NW 16th St	33125-1624	305/324-4455	Thomas C Doherty	1,000-4,999

*Civic Center TMO member.

**TMO member affiliated with the University of Miami