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**Urban Mass
Transportation
Administration**

A Corridor Route Simplification Demonstration in Miami, Florida

UMTA/TSC Evaluation Series

Final Report
September 1985

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16. Abstract The Miami Corridor Route Simplification Demonstration was aimed at improved level of service and operational efficiency through the restructuring of bus routes. The project initially targeted a series of overlapping parallel routes in Miami Beach. The Metro-Dade Transportation Administration (MDTA) proposed to replace the duplicative services with a single direct trunk service and a number of neighborhood feeders. After partial implementation of this concept and some public meetings, MDTA terminated the experiment, convinced that the concept would not be successful in Miami Beach, largely due to the resistance of the largely elderly ridership. MDTA subsequently shifted the project to South Dade, a rapidly growing suburban area, which had several circuitous routes, as a result of numerous bus route extensions. There MDTA attempted to implement its suburban service concept, in which express service to downtown is complemented by long local routes, while off-peak service is oriented to local shopping needs. The service changes actually implemented were only a portion of the total concept as originally planned. The changes that were implemented caused inconvenience to some passengers who would have to transfer, while others benefited from more direct service. Passenger complaints about the service changes and low ridership on most of the new express service caused MDTA to restore the old service and eliminate all but one express run. Thus, the project was not successful in meeting its aim. The suburban service concept never received a full test, although it appears that it needs to be modified to take into account the inconvenience that transferring may cause some passengers. As the South Dade corridor phase of the project was being completed, MDTA planners were restructuring most South Dade routes to feed the new Metrorail service. The demonstration project is continuing with a study of passenger responses to this restructuring of the bus system.					
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PREFACE

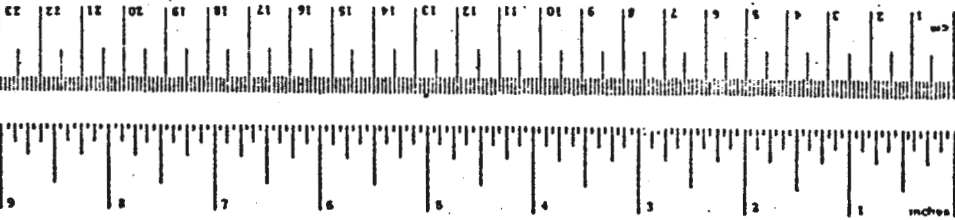
The Metro-Dade Transportation Authority (MDTA) received a grant from the Urban Mass Transportation Administration under its Service and Methods Demonstration Program to experiment with route restructuring to improve efficiency and service quality. As a service to UMTA, the Transportation Systems Center of the U.S. Department of Transportation took responsibility for the evaluation and contracted with Multisystems to carry out evaluation activities and prepare this report.

Multisystems used counts and surveys conducted by the MDTA as sources of information for the evaluation. The authors wish to thank Ms. Suzanne LaPlant of the MDTA, Mr. Robert Waksman of TSC and Mr. Joseph Goodman of UMTA for their assistance.

METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

Symbol	What You Know	Multiply by	To Find	Symbol
LENGTH				
in	inches	2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
AREA				
in ²	square inches	6.5	square centimeters	cm ²
ft ²	square feet	0.09	square meters	m ²
yd ²	square yards	0.8	square meters	m ²
mi ²	square miles	2.5	square kilometers	km ²
	acres	0.4	hectares	ha
MASS (weight)				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
VOLUME				
tblsp	tablespoons	5	milliliters	ml
tsup	teaspoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft ³	cubic feet	0.03	cubic meters	m ³
yd ³	cubic yards	0.76	cubic meters	m ³
TEMPERATURE (exact)				
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C



Approximate Conversions from Metric Measures

Symbol	What You Know	Multiply by	To Find	Symbol
LENGTH				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
AREA				
cm ²	square centimeters	0.16	square inches	in ²
m ²	square meters	1.2	square yards	yd ²
km ²	square kilometers	0.4	square miles	mi ²
ha	hectares (10,000 m ²)	2.5	acres	ac
MASS (weight)				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	st
VOLUME				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m ³	cubic meters	35	cubic feet	ft ³
m ³	cubic meters	1.3	cubic yards	yd ³
TEMPERATURE (exact)				
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



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EXECUTIVE SUMMARY

INTRODUCTION

Beginning in 1980, Miami's Metro Dade Transportation Administration (MDTA) undertook a "Corridor Route Simplification Demonstration" project, using an UMTA Service and Methods Demonstration Program grant, to experiment with ways to simplify its complicated route structure. Although the initial test corridor was in Miami Beach, the project shifted its focus during a second phase to suburban south Dade County. This report concentrates on the South Dade portion of the demonstration, but summarizes the Miami Beach phase briefly as well.

MIAMI BEACH PHASE

The first phase of the demonstration involved the reorganization of routes in Miami Beach where several north-south routes were interwoven in a complicated and duplicative pattern. The revised configuration, called "zoned-bus", involved providing feeder services within neighborhood zones to access a single high frequency trunk line. Miami Beach was considered an ideal location for the zoned-bus concept since it is a long narrow island that could be served with a single trunk route. MDTA started by adding the new trunk line, planning to remove the duplicative services after the necessary public hearings. However, the "zoned-bus" phase of the project was short-lived as a result of the substantial adverse passenger reaction to the planned changes in service, particularly changes which required increased transferring between routes. MDTA attributed the negative public reaction to characteristics of the local ridership, such as the primarily elderly nature of the Miami Beach population (who presumably are most averse to transfers), and shifted the demonstration to the South Dade area, where the percentage of elderly residents is low. The experience in Miami Beach cannot be considered a valid test of the zoned-bus concept.

SOUTH DADE PHASE

In South Dade, as in Miami Beach, the aim was to simplify route structure and provide better and more efficient service. Due to the different characteristics of South Dade, the demonstration concept was modified as well.

In recent years as South Dade developed rapidly as a suburb of Miami's center city, bus route extensions and piecemeal modifications were common, resulting in a rather circuitous pattern of routes. MDTA reviewed the needs of the area and proposed a new service concept, dubbed "the suburban service concept," which included a wide variety of service modifications including the following key elements:

1. Peak Period Service - Direct express service to downtown and other workplaces
 - Longer radial routes to serve local trips
 - Express shuttle service from distant neighborhoods to the trunk expresses
2. Off-peak Service - Short direct local services
3. Late evening Service - Services tailored to outbound drop-off (e.g., route-deviation)

These were eventually reduced in scope as a result of both public input and internal review at the MDTA. MDTA proceeded to implement the remaining elements of the demonstration, which consisted of:

1. Express feeders to downtown expresses
2. More direct peak local routes
3. Shortened off-peak service

The aim of the evaluation was to answer the following questions:

1. Were more riders attracted to transit in the corridor?
2. Have the changes caused inconvenience to many passengers as a result of the need to transfer between routes?
3. Are there particular areas of the corridor that have been positively or negatively impacted?

Although the project never really demonstrated the entire "suburban service concept," as originally proposed, the changes to corridor local routes and the new express bus services were not successful. The express bus feeders achieved little ridership; the only successful run was a run proceeding into downtown Miami. The local route changes were not popular. It

appears that while riders in some neighborhoods gained more direct and faster service, Metrobus underestimated the impact of additional transfers on the residents of one neighborhood. The inconvenience of transfers compounded by a schedule change on another route in the corridor led to vocal protests against the demonstration changes. This led to a decision to restore the original service. Although MDTA estimated that, after 10 months of operation, overall corridor ridership increases of 10% resulted (based on revenue data), actual boarding counts collected during a selected week in the tenth month of the demonstration (November 1983) showed an overall decrease in ridership relative to one year earlier.

Thus, MDTA found that the demonstration resulted in low ridership on new services and significant negative reactions by current riders to the changes in existing routes. Interestingly, once the configured routes were restored to their original configuration, there were complaints by riders who had benefited from the change. These complaints subsided after some time, as had the original complaints regarding the demonstration changes. Thus, we cannot conclude that the demonstration configuration was better or worse than the original route, but it seems clear that one group benefited from the change while another group found the change detrimental.

Although never fully tested in its original form by this demonstration, the suburban service concept appears to need substantial refinement. This experiment found the resistance to transfers among all segments of the population to be greater than anticipated, and a likely key factor inhibiting ridership. Any future application of the concept should take this into account. This finding has important implications for MDTA which has been reorganizing the Metrobus route structure to serve as feeders to Metrorail (implemented since the demonstration). As a result, an additional phase of the demonstration is being undertaken, using the remaining funds of the original grant, to examine MDTA bus planners' current focus -- the integration of bus and rail service.

1. BACKGROUND

1.1 INTRODUCTION

Beginning in 1980, Miami's Metro Dade Transportation Administration (MDTA) undertook a "Corridor Route Simplification Demonstration" project, using an UMTA Service and Methods Demonstration Program grant, to experiment with ways to simplify its complicated route structure. Although the initial test corridor was in Miami Beach, the project shifted its focus during a second phase to suburban south Dade County.

The first phase involved the reorganization of routes in Miami Beach where several north-south routes were interwoven in a complicated and duplicative pattern. The revised configuration, called "zoned-bus", involved providing feeder services within neighborhood zones to access a single high frequency trunk line. Miami Beach was considered an ideal location for the zoned-bus concept since it is a long narrow island that could be served with a single trunk route. MDTA started by adding the new trunk line, planning to remove the duplicative services after the necessary public hearings. However, the "zoned-bus" phase of the project was short-lived as a result of the substantial adverse passenger reaction to the planned changes in service, particularly changes which required increased transferring between routes. MDTA attributed the negative public reaction to characteristics of the local ridership, such as the primarily elderly nature of the Miami Beach population, and shifted the demonstration during a second phase to the South Dade area, where the percentage of elderly residents is low. There too, the aim was to simplify route structure and provide better and more efficient service. Due to the different characteristics of South Dade, the demonstration concept was modified as well.

South Dade, an area of several municipalities within southern Metropolitan Dade County, has developed rapidly in recent years as a suburb of Miami. Bus route extensions and piecemeal modifications were common as new residential developments were constructed, resulting in a rather circuitous bus network. MDTA reviewed the needs of the area and proposed a new service concept for the demonstration in South Dade.

The original goals in South Dade included:

1. Decrease the current operating cost of transit service in the South Dade area without cutting service availability; that is:
 - eliminate duplication of service
 - improve productivity
 - tailor service to travel patterns by time of day
2. Simplify the existing route structure to make target area bus service quicker and more direct between major origins and destinations
3. Restructure the South Dade bus network to provide better neighborhood-oriented service to residents
4. Increase the flexibility of transit service to respond to neighborhood transportation needs; that is, a smaller service area for each route
5. Improve transfer point facilities by locating them in activity centers and providing shelters, phones and information
6. Realign the target area bus network to be consistent with the Dade County Transit Development Plan, that is to be direct with limits on the number of transfers needed
7. Reduce impact of transfer cost (by offering free transfers during off-peak hours for one year during which time the need for transfers would be reduced)
8. Simplify route numbering for target area express routes
9. Examine the possibility of implementing several TSM techniques, such as express bus feeders and scheduled route deviation

Metrobus staff developed a comprehensive set of proposals designed to achieve the above objectives in the corridor, originally consisting of the following key elements:

1. Peak Period Service
 - Direct express service to downtown and other workplaces
 - Longer radial routes to serve local trips
 - Express shuttle service from distant neighborhoods to the trunk expresses
2. Off-peak Service
 - Short direct local services
3. Late Evening Service
 - Services tailored to outbound drop-off (e.g., route-deviation)

The proposals collectively dubbed "the suburban service concept," were eventually reduced in scope as a result of both public input and internal review at the MDTA. Some were dropped entirely from the program, while others were modified somewhat. MDTA proceeded to implement the remaining elements of the demonstration, which consisted of express feeders to downtown expresses, more direct peak local routes, and shortened off-peak service, only to find low ridership on new services and negative reaction by current riders to the changes in existing routes.

This report describes the results of the Corridor Route Simplification Demonstration. It focusses on the South Dade phase of the project, after reviewing the Miami Beach phase in Chapter 2.

1.2 SUMMARY OF THE SOUTH DADE EVALUATION

In order to assess the ridership, level of service and travel behavior impacts on travelers in the South Dade Corridor as a result of Metro's implementation of the "suburban service concept" demonstration, the evaluation made use of direct ridership counts and data available from operator records. The aim of the analysis was to answer the following questions:

1. Were more riders attracted to transit in the corridor?
2. Have the changes caused inconvenience to many passengers as a result of the need to transfer between routes?
3. Are there particular areas of the corridor that have been positively or negatively impacted?

The results of the analysis are presented in Chapter 4 and the conclusions of the project in Chapter 5. A discussion of planning and implementation issues is presented in Chapter 3.

The project never really demonstrated the complete "suburban service concept," as originally planned. The Route 2 corridor changes and the new express bus services were largely unsuccessful, however. Express bus feeder services did not generate ridership sufficient to meet MDTA's standards for continued operation. Local bus route changes were apparently unpopular. It appears that while riders in some neighborhoods gained direct and faster service, Metrobus underestimated the impact of additional transfers on the residents of one neighborhood -- Richmond Heights. The inconvenience of transfers (compounded by a schedule change on another route in the corridor) led to vocal protests from this neighborhood against the demonstration changes. This led to a decision by

MDTA to restore the original service (as a new Route 110). Although MDTA estimated eventual ridership increases of 10% in the corridor as a result of the demonstration changes (based on revenue data), actual boarding counts collected for the demonstration during a selected week in November 1983 (the tenth month of the demonstration) showed a decrease in overall ridership relative to counts one year earlier. (There were actually increases in some neighborhoods and decreases in others.)

After Route 110 (the restored service) was in place, MDTA reports that ridership decreased and complaints were received from riders who preferred the demonstration service. However, no project data collection efforts accompanied the restoration of the old route configuration to verify the ridership impacts and, within a few months, Metrorail service began operating from the corridor and numerous bus route changes were implemented.

2. THE MIAMI BEACH PHASE

This section documents the origin and results of the MDTA's ten month experiment in 1980 and 1981 with the 80 Special bus route serving Miami Beach and connecting it with the mainland. The service was initiated as a precursor to major restructuring of Miami Beach bus routes under the Corridor Route Simplification SMD Project. However, the public's lack of response to the 80 Special led to a reappraisal and withdrawal of the overall restructuring plan for Miami Beach, the demise of the 80 Special, and the subsequently shift of the demonstration to South Dade County.

2.1 BACKGROUND

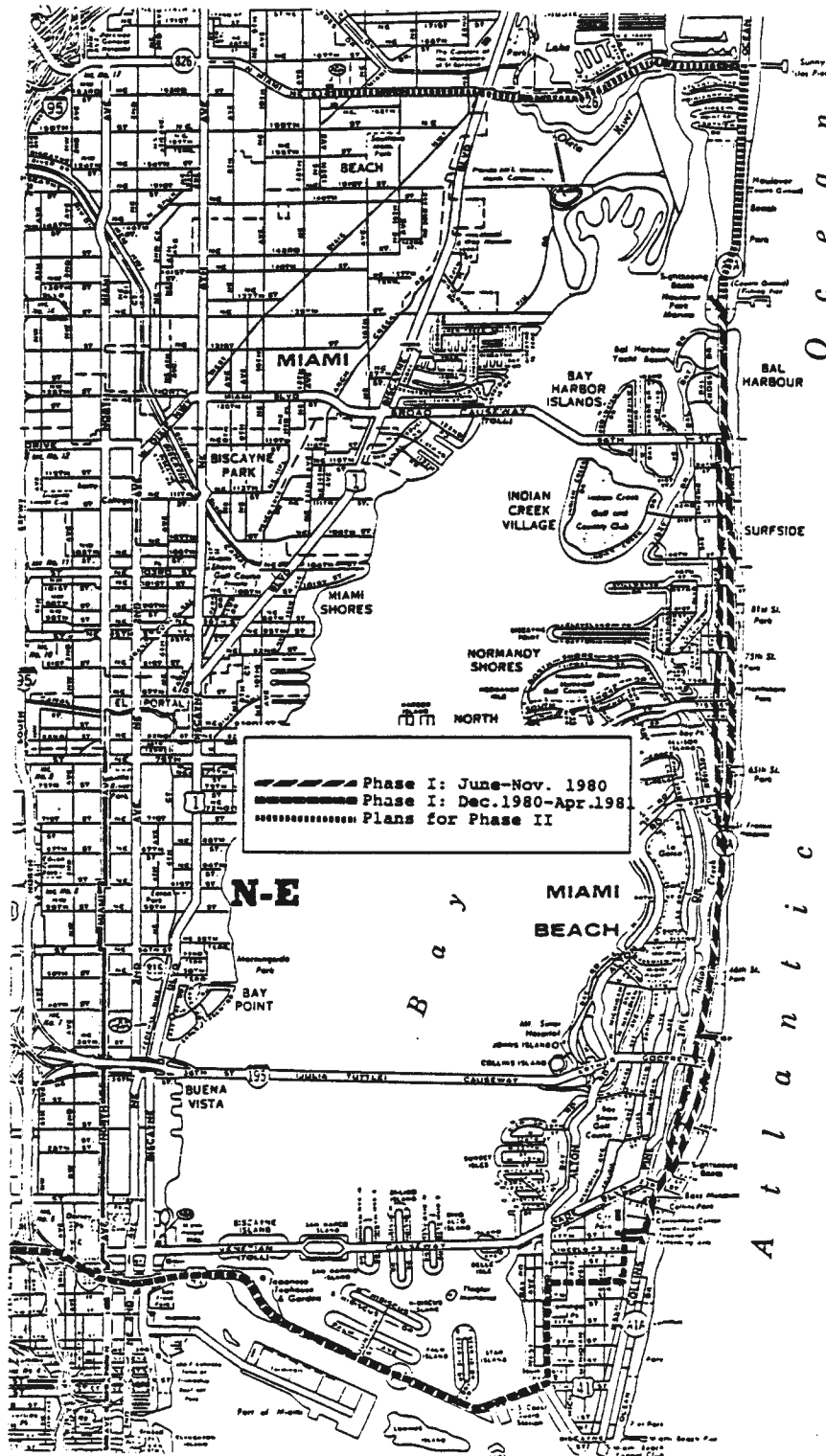
The original concept for the demonstration involved a major restructuring of Miami Beach's bus routes (something which had never been done before). The centerpiece of the new design was to be a high frequency (e.g., 10 minute headway), limited stop (approximately once or twice per mile) trunk route which would connect Miami Beach to downtown Miami and to the 163rd Street Shopping Center, accessing the island at the northernmost (i.e., Sunny Isles) and southernmost (i.e., MacArthur) causeways. (See Figure 2-1.) Most of the route was to be on the city's principal arterial(s) (generally Collins Avenue, but southbound on Indian Creek Drive where Collins is one way northbound). Connections between the new trunk route and other restructured Miami Beach routes were to be available at approximately 11 cross streets. The underlying design consideration for the other routes was to be that they would serve a very limited number of adjacent neighborhoods and/or nearby activity centers; that is, the other routes were generally expected to serve as neighborhood circulators and as feeders to the trunk service. The aim of the demonstration was to provide more and better service than was currently provided, without an increase in cost; the improved effectiveness of the restructured routes was to make this possible.

2.2. MIAMI BEACH SITE CHARACTERISTICS

The target area for the first phase of the Corridor Route Simplification Demonstration Project was the City of Miami Beach, together with the much smaller neighboring cities of

Figure 2-1

80 SPECIAL ROUTING



Surfside and Bal Harbour and a small adjacent area of unincorporated Dade County. Miami Beach is a truly unique urban area located on a barrier island an average of one mile wide located about three miles from the mainland (i.e., the City of Miami). According to 1970 census figures, the population of Miami Beach was approximately 87,000 persons.

One of the unique features of Miami Beach is its status as both a beach resort area (catering to tourists from all over the world) and an area with an extremely high concentration of elderly residents. Census figures for 1970 indicate that approximately 50% of the population was 65 years of age or older.

Mass transit (bus) service in Miami Beach and to/from the city and the mainland is provided exclusively by the county-owned Metro Dade Transportation Administration (MDTA), formerly known as the Metropolitan Transit Agency. Bus service is extensive, particularly in Miami Beach, and typically operates between about 5 AM and 2 AM on weekdays and Saturdays, with headways as short as 20 minutes throughout much of the day on certain routes. (Sunday service is less extensive but quite frequent.) Nevertheless, there is considerable overloading on many routes, and the need to improve service was recognized within MDTA.

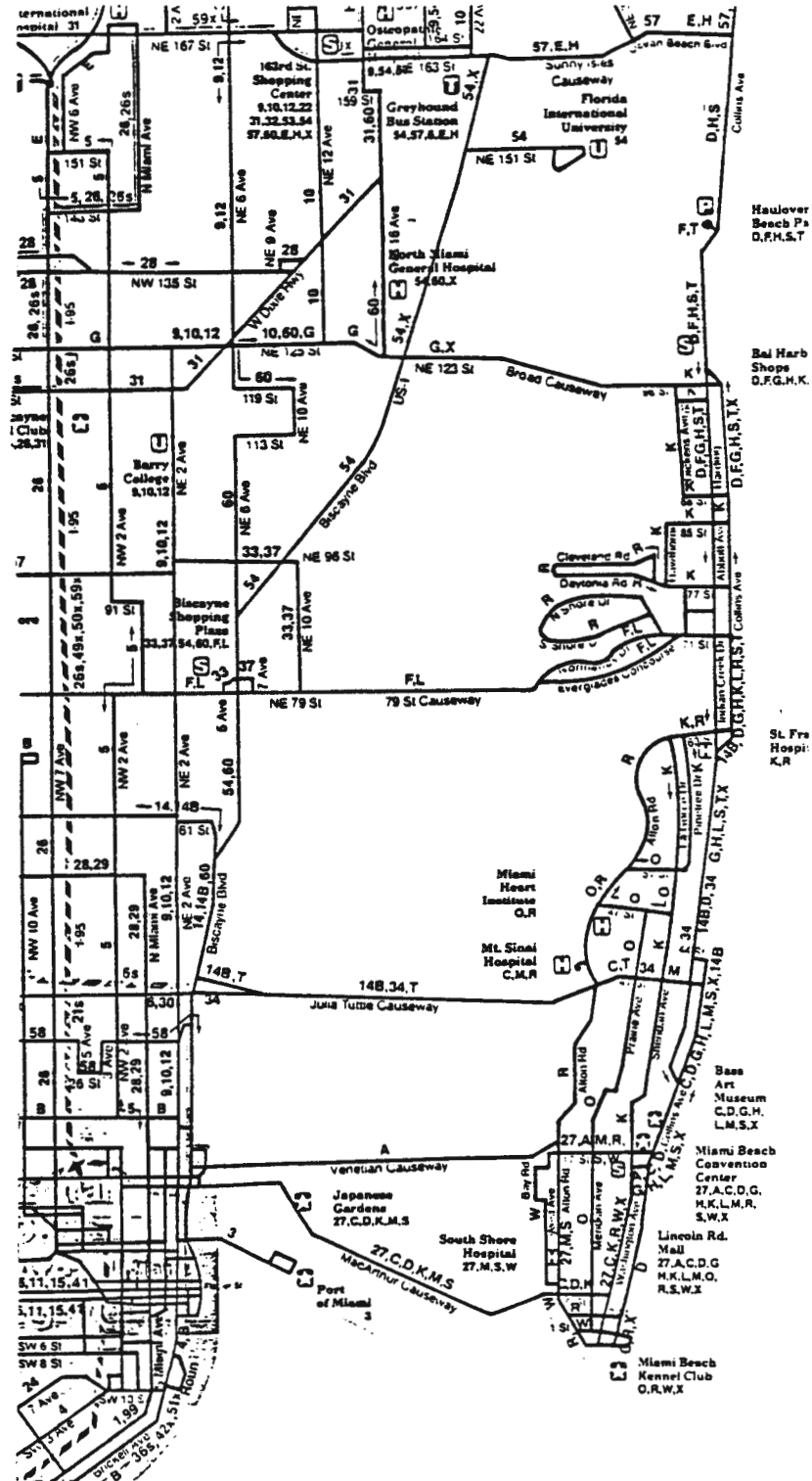
About 50,000 daily transit trips originate on the Beach, and about 29,000 of these have a Beach destination as well. Of the originating trips with non-Beach destinations, about 40% are to downtown Miami.

The local fare at the beginning of the demonstration was 50¢ per trip, with free transfers which allowed unlimited travel for 90 minutes regardless of direction or number of boardings. However, fares changed twice during the ten months of the 80 Special's operation. On November 1, 1980, the base fare rose to 60¢ and the roundtrip feature of the transfer was eliminated; on January 1, 1981, the base fare rose further to 75¢. Elderly and handicapped passengers rode for 25¢ during off-peak periods throughout the demonstration period.

A total of 19 local routes provided service in Miami Beach immediately before the 80 Special was implemented. The narrowness of the island together with the relatively limited access to it provided by the six causeways which connect it to the mainland had led to the development of a route network characterized by significant overlapping of service on two adjacent major arterials (Collins Avenue and Indian Creek Drive). (See Figure 2-2.) Although different routes covered various portions of the island's length (because they entered/left the city on particular causeways), serious duplication of service (i.e., a high number of overlapping

Figure 2-2

PRE-DEMONSTRATION ROUTES



routes) existed in certain segments of the city; this may have been confusing to existing (as well as potential) users, resulting in a situation where service frequency may have been perceived to be considerably lower than it actually was.

Land use is characterized by relatively distinct neighborhoods and usage patterns. The narrowness of the island implies that most of the predominantly north-south bus routes traverse a number of areas of highly diverse populations and needs. This makes changes to bus service/routing particularly difficult to accomplish to the satisfaction of those concerned.

At the outset of the demonstration, no limited stop or express service was offered either within Miami Beach or between the Beach and Miami. Bus stops were relatively closely spaced (on the order of 8 to 10 per mile), partially in response to the needs of elderly citizens; consequently a limited stop service was believed by transit officials to offer a perceptible advantage in travel time and comfort, particularly for those making the relatively long trip from downtown Miami or the 163rd Street Shopping Center (on the mainland) to central Miami Beach.

2.3 IMPLEMENTATION OF THE 80 SPECIAL

From the outset, Metrobus planners were concerned about public acceptance of the new trunk/feeder concept, partly because much of the existing ridership is elderly and strongly averse to transferring, which would be more prevalent for non-neighborhood trips under the restructured routing. In order to test the reaction to limited stop service and to help identify the best stop locations (which would also be the transfer points after restructuring), a decision was made to implement the demonstration in two major phases.

The first phase, which involved only the introduction of the 80 Special route (i.e., the trunk route) without any additional feeder service, began on June 23, 1980 with the new route operating in the off-peak only, on twenty minute headways, and between Lincoln Road Mall and Haulover Marina, both on the Miami Beach side of Biscayne Bay. On December 7, 1980, the route was extended southward from Lincoln Road to downtown Miami and the schedule was expanded into the morning peak in an effort to capture worktrip riders commuting to the Beach from the mainland. (See Figure 2-3.) Note that this first phase involved no modifications to existing routes--parallel local service was still maintained. Consequently, little (if any) negative public reaction was anticipated (or received). Note that the competing routes offered a combined headway averaging 6 minutes along Collins Avenue while the 80 Special had a 20-minute headway.

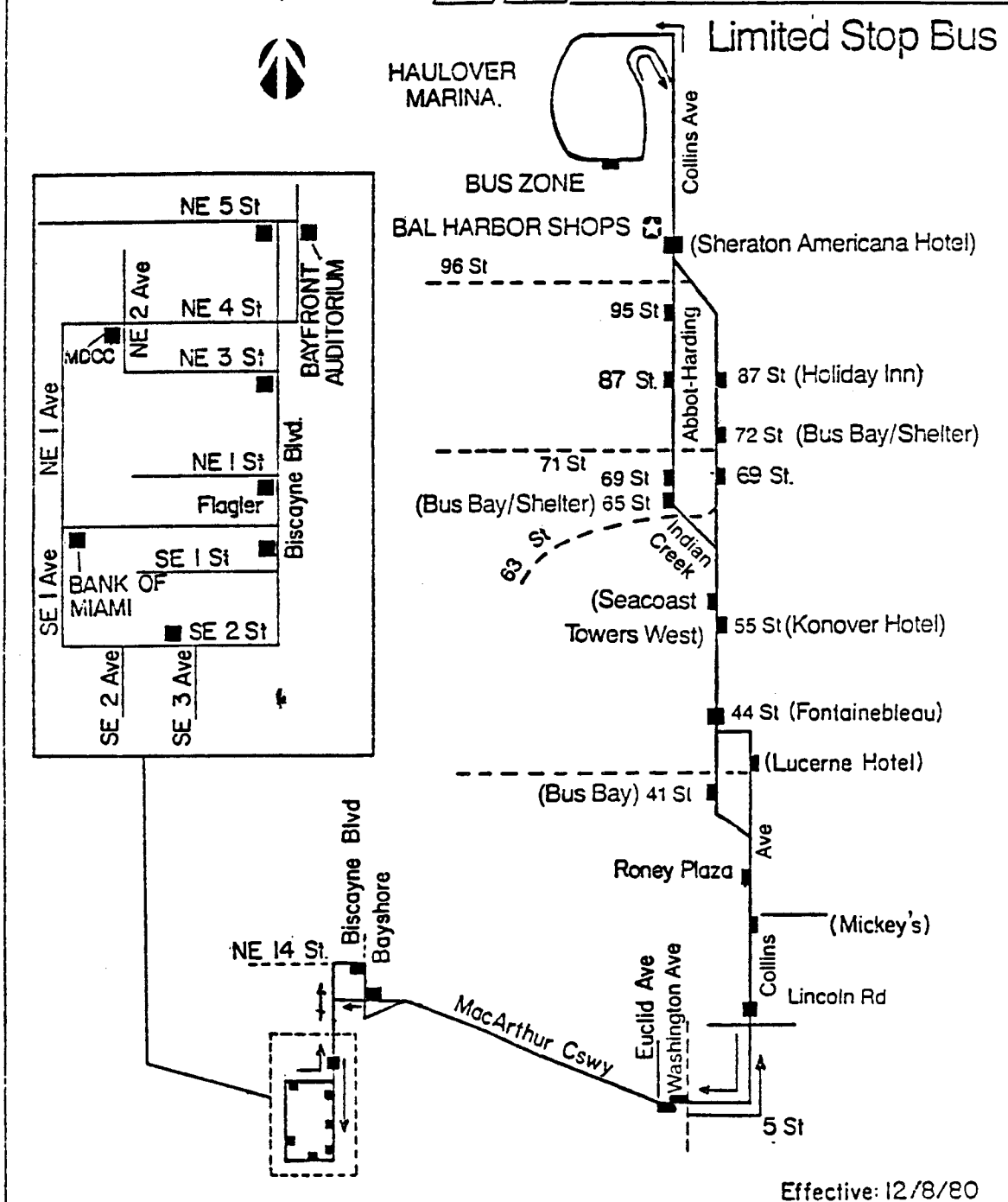
Figure 2-3

80 SPECIAL ROUTE MAP

METROBUS

Operator Guide

Route 80 SPECIAL



Effective: 12/8/80

Implementation of the first phase of service was accompanied and advertised by the distribution of flyers describing the route, as well as newspaper spots several times during the week before and during the week of introduction. (See the Appendix) However, no marketing accompanied the expansion of service to the downtown in December 1980. MDTA was reluctant to herald the expanded service, since by that time it had already been decided that the route would be terminated in April 1981. Thus, there were no announcements or other efforts to promote the 80 Special, other than the initial marketing in June, 1980.

Since the 80 Special was a limited stop service, special signs were required to identify which bus stops it served. Unfortunately, the new signs were not in place in time for the service's introduction. Furthermore, although a few of the bus stops were moved shortly thereafter,* the bus stop signs were never moved from the original locations. As a result, there was confusion on the part of both passengers and drivers as to where the buses would stop; some drivers continued to stop at those former 80 Special stops with signs so as to avoid bypassing any waiting riders. This bus stop sign problem was never resolved during the period of the service's operation.

At a series of meetings held in July 1980 to determine residents' reactions to the planned restructuring of Miami Beach routes under the demonstration, there was little support for a restructuring; the general desire was for better schedule adherence, better maintained equipment and more courtesy from drivers on existing routes. This input, together with MDTA staff's concern over the viability of the demonstration's concept in Miami Beach, led to a decision to abandon the Beach as the implementation site.

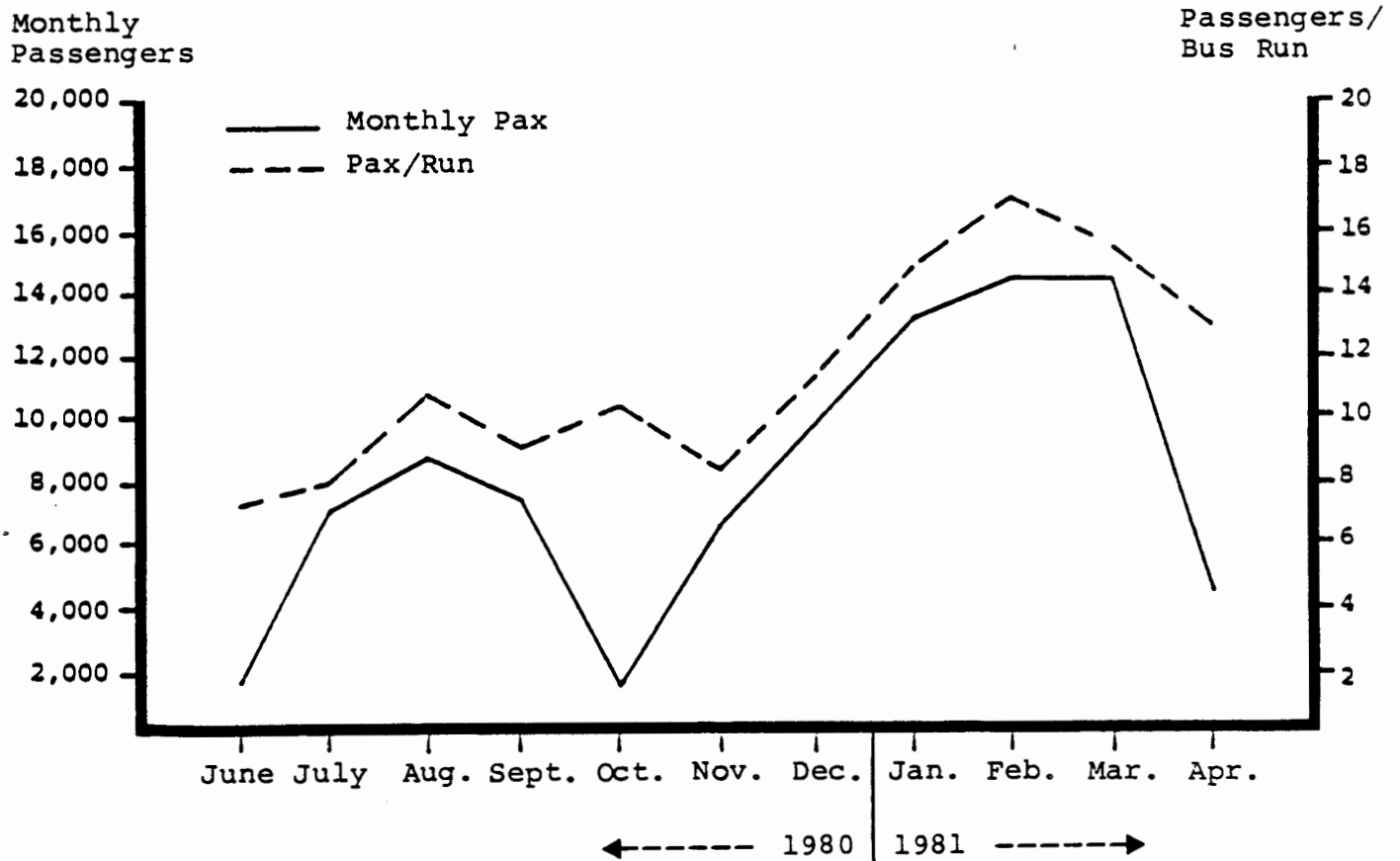
2.4. USER RESPONSES TO THE 80 SPECIAL

Utilization of the 80 Special was low throughout its period of operation. (Figure 2-4 traces the growth of monthly ridership and passengers per one-way bus run over the route's life.) While 80 Special ridership was apparently growing, comparison with competing local routes serving many of the same locations (e.g., the S, D, H, and T routes) indicate that the 80 Special was a relatively poor performer. Cost per passenger for the 80 Special and the competing local routes is compared in Figure 2-5. Note that despite some ridership growth the cost per passenger remained very high on the 80 Special. Figure 2-6 shows ridership on the competing routes and the system as a whole. It is evident that some seasonal variation in ridership on the 80 Special is also reflected on the other

* Generally a block or so to facilitate operations or to ease transferring.

Figure 2-4

80 SPECIAL RIDERSHIP



Note: June 1980 and April 1981 figures reflect the fact that service began and ended in mid-month. Figures for October and (to a small extent) November 1980 reflect the cessation of service for three weeks due to equipment shortages.

Figure 2-5

COST PER PASSENGER ON ROUTE 80S VS. SYSTEMWIDE

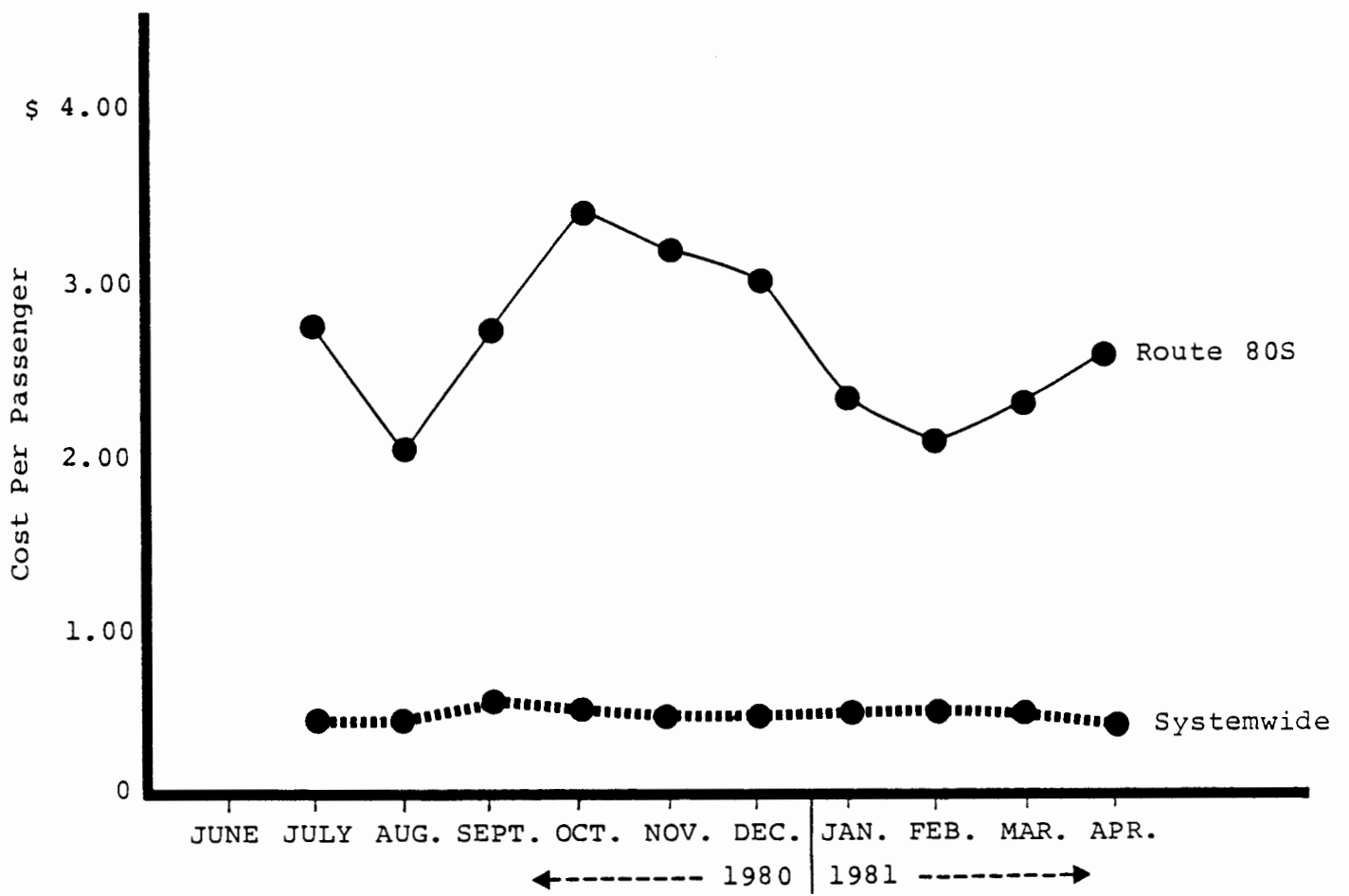
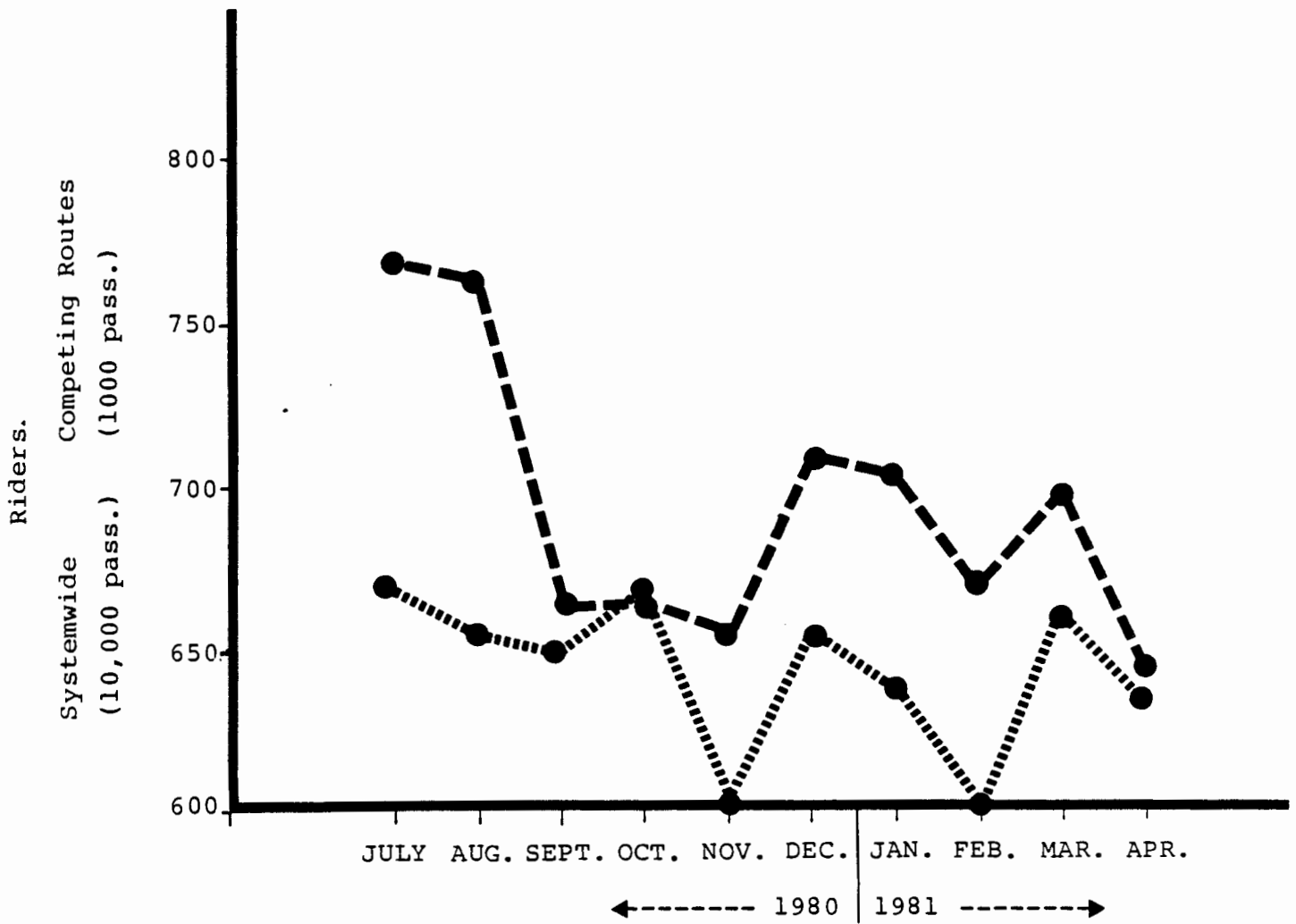


Figure 2-6

COMPARATIVE RIDERSHIP ON FOUR COMPETING MIAMI BEACH ROUTES AND SYSTEMWIDE



routes and that the competing routes closely parallel the fluctuations in ridership on the system as a whole.

MDTA received complaints from some citizens because the competing local route buses were overcrowded and the 80 Special was obviously running almost empty; the citizens wanted the 80 Special vehicles redeployed to the more heavily utilized routes. When a severe bus shortage developed in the fall of 1980, MDTA officials pursued this strategy and temporarily suspended service on the 80 Special to provide "more essential" and better utilized service; not a single complaint was received during this period regarding the suspension of service on the 80 Special. When a series of three public meetings were held in early 1981 to provide an opportunity for citizens to oppose the scheduled termination of several routes, including the 80 Special, again not a single person commented in favor of retaining the limited stop route.

In an effort to understand the cause for the 80 Special's lack of acceptance before it was eliminated, plans were made to interview a sample of "potential" riders - that is, people waiting for a bus at designated 80 Special stops.* The primary purpose of the effort was to determine why 80 Special ridership was disappointingly low.

On March 11 and 12, 1980 the interview content and procedures were pretested on a sample of people waiting at four bus stops served by the 80 Special (three on Miami Beach and one in downtown Miami).** In each case, the interviewer approached an individual apparently waiting for a bus and asked if he/she could survey them. Since the interview would be terminated if the respondent's bus arrived, speed in completing the process was important.

A total of 145 interviews were conducted during the pretest. A major constraint was the lack of a Spanish language version of the interview and a bilingual interviewer. A significant percentage of those approached at some stops could not be interviewed in English. Nevertheless, the pretest appeared to provide reasonable explanations for the limited use that the 80 Special had been receiving. A decision was subsequently made to cancel the remainder of the interviews, since it appeared that sufficient data were already available to meet the effort's objectives.

Bearing in mind the small size of the pretest, the fact that it was conducted at a small number of stops, and the fact that it was not conducted in Spanish (as well as English), the following statistics are still noteworthy:

* Note that all 80 Special stops were served by one or more other routes as well.

** A single interview was conducted at a fifth location.

1. Of those interviewed, 24% were making trips which could conveniently be made using the 80 Special.* Since only people waiting at 80 Special stops were surveyed, the percentage of all riders along the route who could use the service as designed was notably less than 24% - one can only guess at the percentage since data are not available to calculate it.
2. Among those who could conveniently use the 80 Special, 59% were aware of the service and 60% of these people had tried it. (Many people seemed to have learned about the route either by asking drivers or starters, or through conversations with friends.)
3. Of those who had used the 80 Special,** 43% wait for it specifically, while the remainder generally take the first suitable bus available.

To supplement the data obtained through the pretest, an ad hoc on board survey of 80 Special riders was conducted, and a total of 15 riders were interviewed on the bus. Ten of these people made their trip at least once a week and four of these people specifically waited for the 80 Special rather than taking the first suitable bus; these people were all making relatively long bus trips. Of the 15 riders, 12 were year round residents of the Miami area. Only two of the riders had read about the service; the remainder saw it, asked about it, or were informed by others. All (who answered) felt the service was faster for their trips; several mentioned the advantage of fewer stops and less crowding than alternative routes.

The interview pretest also provided an opportunity to observe the route in operation, and to discuss the route with transit starters and other MDTA operating officials. With the caveat that these comments reflect both hearsay comments and isolated observations, they are nevertheless presented:

1. On several occasions, 80 Special buses were observed to be running significantly ahead of schedule. In one case the schedule deviation at a point midway through the route was approximately one-half the headway of 20 minutes. It appears that this is a consistent problem with the lightly loaded route.

* Note that since MDTA officials strongly believe that riders will not accept walking to (or from) an adjacent bus stop to access (or egress) the bus, convenient service was defined as service to a traveller's preferred stop.

** Including those interviewed in a separate on-board interview discussed later.

2. MDTA operating staff believed the choice of a number, rather than a letter, to designate a route serving Miami Beach was confusing to most transit riders. Citizens have been conditioned to associate numbers with mainland bus routes.

2.5 CONCLUSIONS

It is apparent (in hindsight) that problems with the design, implementation, marketing, and operation of the 80 Special, aided by the unique characteristics of its target population, combined to ensure its low utilization. However, it is questionable whether any limited stop service, no matter how well executed, could succeed in an environment in which:

1. it offers relatively little (if any) travel time advantage over competing routes for most travellers' trips (the survey indicated that many origin-destination pairs were not served by the 80 Special and those that were served were offered only slight travel time reductions), and
2. local service, which is well known by the public, is unaltered and directly competes over virtually all origin-destination pairs served by the limited stop service (headways for the 80 Special were 20 minutes while other routes offered a combined trunk headway of about 6 minutes).

Essentially, for most travelers the 80 Special offered no significant advantages over competing routes, and it served a smaller market. It is therefore not surprising that it did not attract a large loyal ridership.

However, the 80 Special experience should not be misconstrued as a relevant test of the corridor route simplification concept. The 80 Special was simply one piece of that concept implemented out of context; one can only speculate how well a completely restructured system would have performed. While the public's reluctance to transfer is well understood, corridor route restructuring was expected to have provided benefits to offset that burden. The value of this concept still remained to be tested. Recognizing this, MDTA chose to pursue demonstration activities in South Dade where it believed there would be less public opposition to changes in service and transferring and where route restructuring was already deemed necessary. The rest of this report describes the South Dade portion of the demonstration.

3. PLANNING AND IMPLEMENTATION OF THE SUBURBAN SERVICE CONCEPT IN SOUTH DADE

The Miami SMD project was originally conceived as a demonstration of the "bus corridor efficiency" concept which claims that by replacing overlapping routes in a corridor with a fast, frequent trunk route, local feeders, and transfer amenities, service costs can be reduced without cutting level of service (or level of service improved without additional operator expense). Miami Beach was chosen as a demonstration site because it is a naturally long, narrow corridor. However, passenger opposition to the service changes, particularly increased transfers prompted a shift in site to south Dade County, a large area south of South Miami bisected by U.S. Route 1. There the focus of the demonstration changed to testing the "suburban bus service" concept. This section describes South Dade, the existing Metrobus routing and the service changes that were included in the proposed and actual demonstration of the suburban service concept.

3.1 SOUTH DADE AREA SITE CHARACTERISTICS

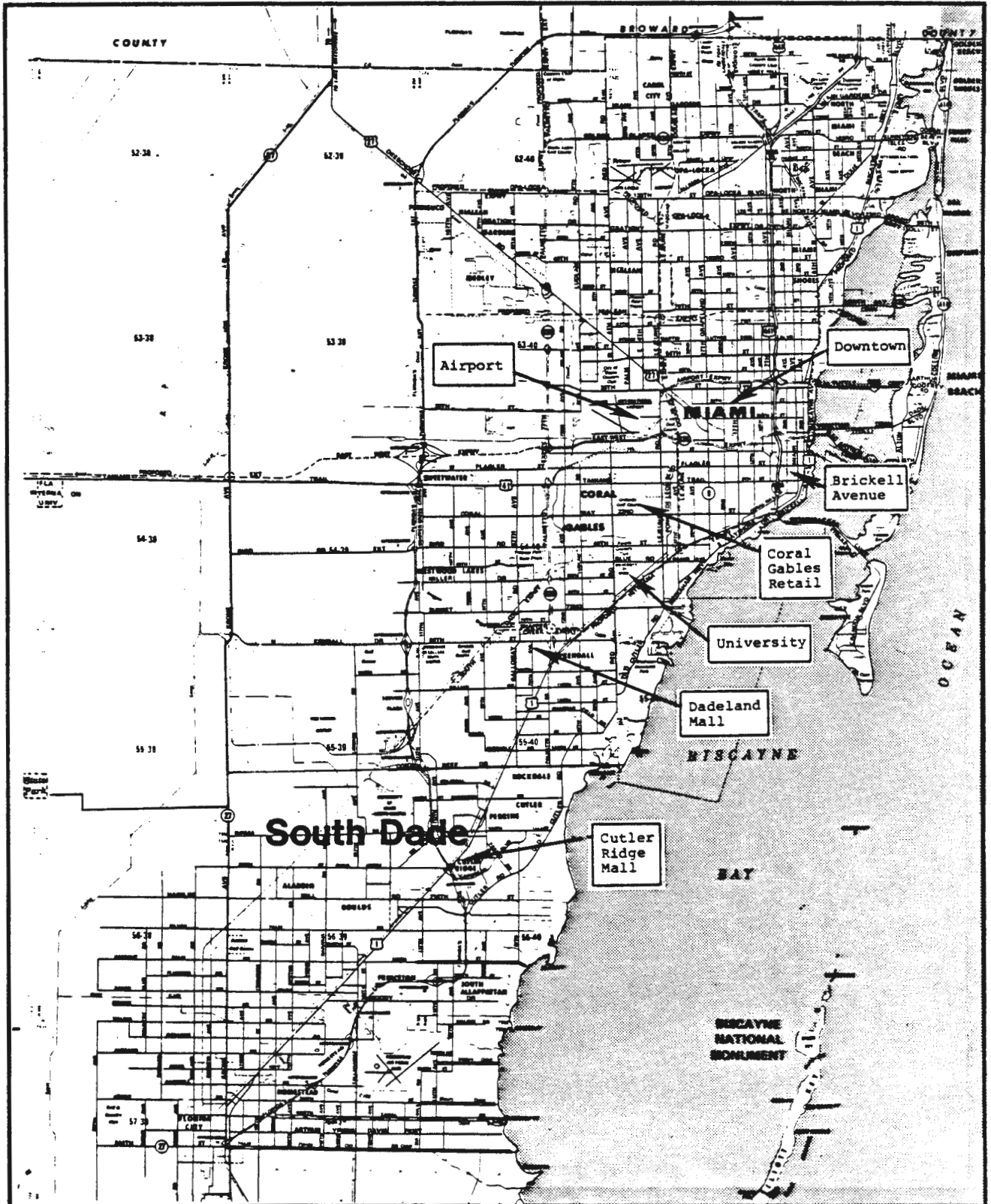
South Dade consists of a number of incorporated and unincorporated areas located south of Miami in Dade County (See Figure 3-1). Among the largest communities are Coral Gables, a wealthy suburban community; South Miami, the site of the University of Miami; and Kendall, a middle class community of increasing density, adjacent to the Dadeland Mall.

South Dade has seen considerable population growth in recent years as the Miami metropolitan area continues to expand. Housing developments have been spreading southward and westward amidst older communities. The resulting residential pattern is a checkerboard of black and white, rich and poor, families and retirees. Many of the newer developments have been superimposed on the theoretical grid street system without maintaining the continuity of streets and avenues; some are even enclosed by walls limiting access to and from major arteries. As a result, bus routes have become long and meandering.

Key destinations for work trips from South Dade include downtown Miami's retail and government center, the Civic Center

Figure 3-1

SOUTH DADE



just northwest of downtown, the airport, the Brickell Avenue corridor south of downtown, and the Coral Gables business district.

There are several major shopping destinations in South Dade. Dadeland Mall is the largest by far and is located in the center of the area of interest to this study. Cutler Ridge Mall is located at the southern end of the heavily suburbanized South Dade region. Northernmost is Coral Gables retail district, which is older and less regional in attraction.

South Dade is served by a separate division of Metrobus, most of whose local routes currently terminate at the Coral Gables bus terminal, located in Coral Gables retail district (see Figure 3-2).

The demonstration corridor neighborhoods affected by the changes (listed in north to south order below) have very different characteristics:

1. Coral Gables business district - small high-priced stores, workplaces and bus terminal
2. Coral Gables residential - wealthy, single family homes, little ridership except housekeepers
3. University - student ridership
4. South Miami - pockets of lower income and minority residents, transfers
5. U.S. 1 Strip - shopping, some residents off the main highway, some low income housing
6. Dadeland - the major shopping destination plus workplaces and apartments
7. North Richmond Heights - middle income, minority, single family homes
8. Richmond Heights - middle to upper income, families, new construction
9. Perrine (north) - low income minority area, public housing, considerable ridership
10. South Miami Heights - middle income, low density area
11. Cutler Ridge Mall - the other major shopping destination of the corridor, also some apartments
12. Goulds - lower income minority area

Figure 3-2

PRE-IMPLEMENTATION SOUTH DADE METROBUS SERVICES

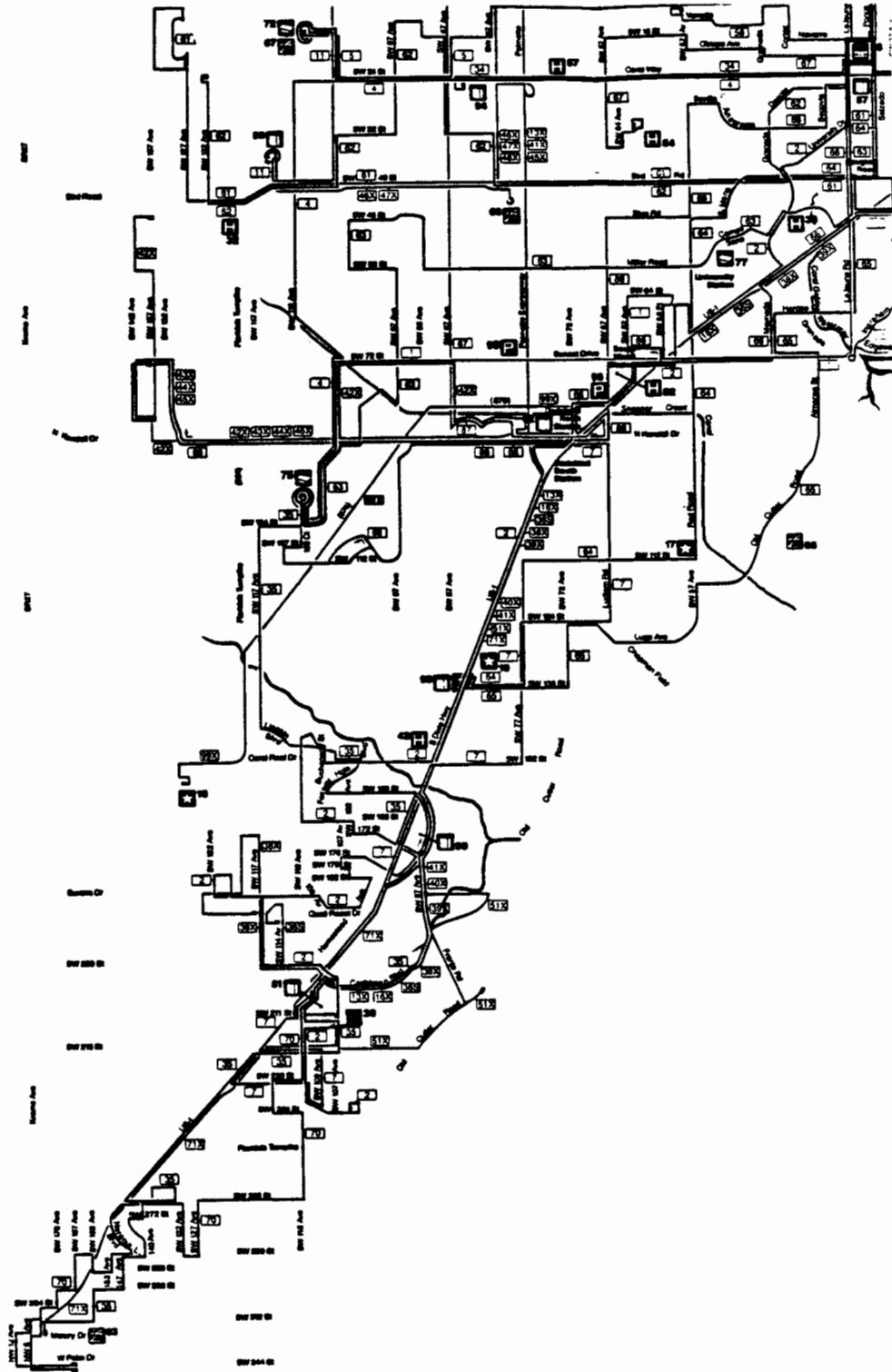


Table 3-1 shows Census data for the tracts which were impacted by the South Dade demonstration changes. Note that the corridor includes some very different areas in terms of racial composition but that for the most part the population is younger than the county average. Note that the new express services are targeted at white suburban areas with high growth in the period from 1970 to 1980. In general, the changes implemented in January 1983 seem to improve service for the "choice" riders while cutting back service somewhat for those without a choice.

3.2 METROBUS BACKGROUND

This section provides background on MDTA's Metrobus service and its ridership profile, with particular attention to the South Dade corridor.

3.2.1 The Metrobus System

With a fleet of 644 air-conditioned buses in active service, Metrobus operates 23 million bus miles and serves 64 million passengers each year throughout Metropolitan Dade County. The system has grown substantially over the past decade (from 16 to 27 million miles in the period from 1971 to 1981) although the past few years have exhibited a downward trend. Metrobus operates local, express and special bus routes, and seven park-and-ride lots; STS, a special needs transportation service, is offered for the physically disabled.

Metrobus' frequency of service varies by route but is rarely more frequent than every 15 minutes, and many routes operate every 30, 40, or 60 minutes in the peak. The system includes 93 routes, including 21 expresses, and one downtown shuttle loop. The system is divided into three divisions: North Dade, South Dade and Miami Beach.

Regular local bus fares are 75¢, express buses are \$1.00, shuttle buses are 35¢ and transfers are 25¢. Discounted fares of 35¢ are offered to students all day and to elderly and disabled during the off-peak. Transfers are also free to students, elderly and disabled during off-peak hours. Monthly Metropasses offer unlimited rides on all services for \$40.00 per month. Discount passes are also offered with restrictions on their use.

3.2.2 Characteristics of Metrobus Riders and Trips

Table 3-2 summarizes key demographic characteristics of Metrobus riders in the South Dade Corridor (see Figure 3-3) and compares them with systemwide and area population characteristics. These data are derived from a 1980 on-board bus survey which had a 23% response rate and is believed to be somewhat biased toward more educated riders. The data show

Table 3-1

CHARACTERISTICS OF AFFECTED AREAS (1980 Census)

	-----Route 2 Area-----			
<u>Census Tract:</u>	<u>106.03</u>	<u>83.01</u>	<u>83.02</u>	<u>83.03</u>
Total Population	12,888	12,434	11,116	9,747
% under 18 years of age	30.9	32.3	33.0	35.9
% aged 65 and over	5.6	4.5	4.3	8.9
% Black	3.7	67.7	15.7	63.4
% Hispanic	13.1	5.3	13.0	7.4
% change in no. of housing units (1970-80)	26	117	119	46

	--Route 74X--			
	--Route 152X-			
<u>Census Tract:</u>	<u>84.04</u>	<u>101.13</u>	<u>101.14</u>	<u>DADE CO.</u>
Total Population	8,726	12,014	5,322	1,625,979
% under 18 years of age	21.8	29.8	35.3	24.0
% aged 65 and over	7.1	2.2	3.2	15.7
% Black	1.4	1.6	14.3	17.2
% Hispanic	16.6	21.1	37.3	10.7
% change in no. of housing units (1970-80)	257	9700	95	47

Table 3-2

DEMOGRAPHICS OF BUS USERS (1980 On-Board Survey)

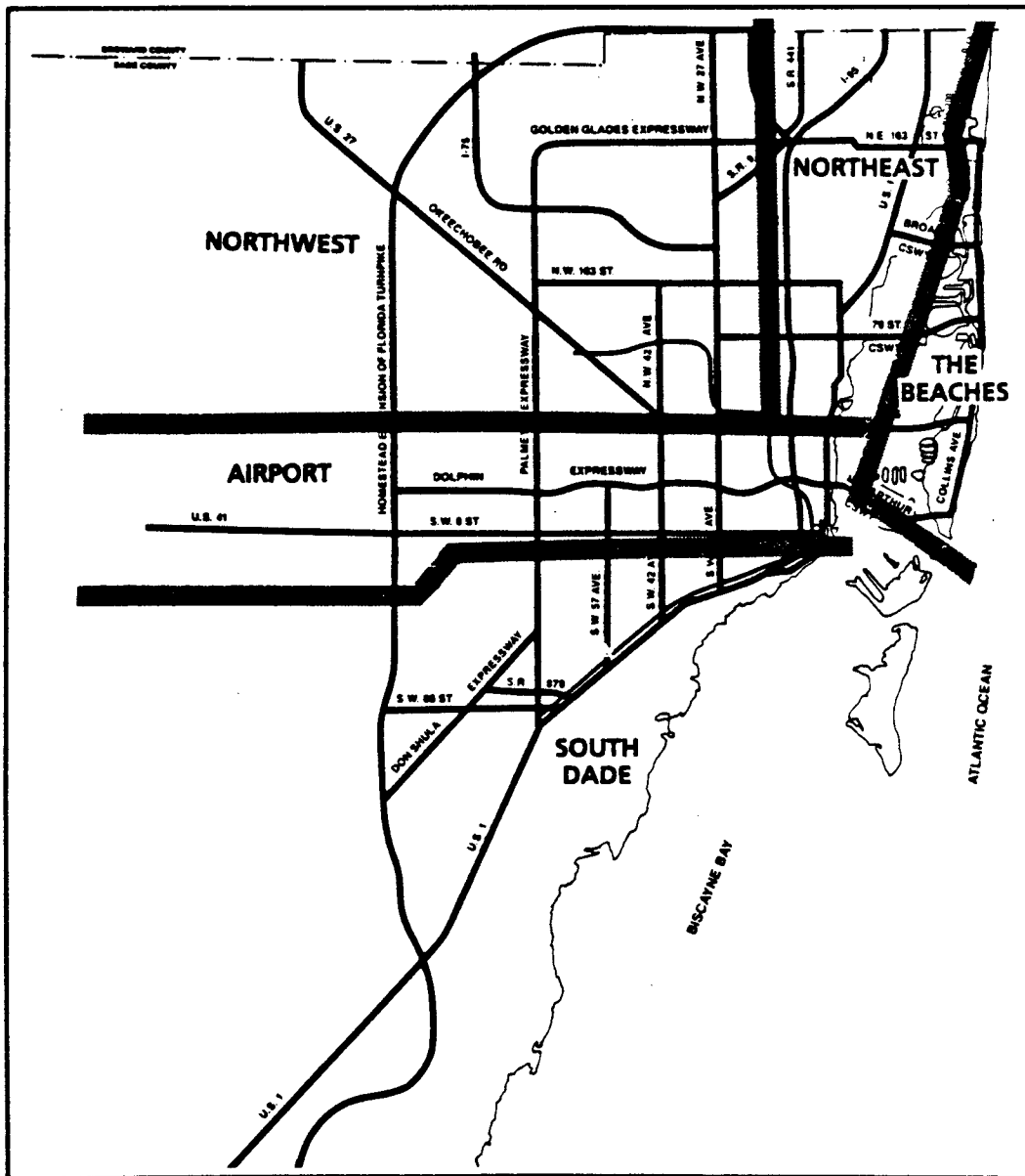
	<u>South Dade Corridor* Riders</u>	<u>Total Rider Sample</u>	<u>All Dade County Residents</u>
Over 60 years old	27%	24%	20%
Female	63%	62%	53%
Black	20%	29%	17%
Hispanic	43%	27%	36%
Non-Hispanic White	34%	40%	42%
Earn less than \$10,000	45%	51%	33%
Employed	63%	63%	58%
College Educated	47%	42%	34%
Single-Person Household	42%	45%	26%
No Automobile	44%	50%	n.a.
Automobiles/Household	n.a.	0.78	2.11
Have Drivers License	33%	39%	71%
Reside in Dade Co. 10-12 mos./yr.	92%	91%	98%

*South of S. W. 16th Street

SOURCE: Metro-Dade Transportation Administration, The Dade County On-Board Transit Survey Data Analysis Report, February, 1984.

Figure 3-3

BUS CORRIDORS IN DADE COUNTY



that South Dade riders for the most part resemble the riders systemwide but are more "transit dependent" than residents of the county in general. Note that the demographics and transit dependency of riders may be somewhat different for the "South Dade Corridor" as a whole (as reported here) from those for the selected study routes in this demonstration.

Table 3-3 summarizes trip characteristics for the South Dade Corridor and systemwide, again showing the two to be quite similar. Note that almost half the riders transferred during their trip (on the 1980 non-grid system) and that few used automobiles to reach the bus stop.

3.3 THE ORIGINAL PROPOSAL

Loosely stated, the suburban service concept which was the basis for the South Dade demonstration is simply that bus service in distant suburbs should be structured differently than service in central cities to reflect the different travel patterns found there. Specifically, "suburban service" included three concepts of route structure:

1. During the peak period, demand is primarily for express downtown service, and secondarily for intercommunity trips within the corridor. Therefore, peak period service should be characterized by express routes and long, radial local routes. The most economical and attractive way to serve distant neighborhoods may be to provide express shuttles to the trunk of the corridor where patrons can transfer to express and local service, rather than to serve these neighborhoods with slow, meandering local routes that entail long travel times to almost all desirable destinations.
2. In contrast to the peak period, demand in the off-peak is primarily for short trips to and from activity centers within the same community or in nearby communities. Off-peak routes should therefore be short and direct.
3. During the late evening, service should be provided for outbound dropoff. If a route serves a few different neighborhoods along the corridor, and no passengers want to alight in one of those neighborhoods, the bus driver should be free to remain on the trunk, skipping the loop (or semi-loop) that serves this neighborhood, thereby reducing travel time for passengers continuing to more distant neighborhoods.

3.4 PUBLIC REACTION AND REDESIGN OF THE PROPOSAL

This section documents the public reaction to the network changes proposed by Metrobus to demonstrate the "suburban service" concept and their redesign.

Table 3-3

BUS TRIP CHARACTERISTICS (1980 On-Board Survey)

	<u>South Dade Corridor Riders</u>	<u>Total Rider Sample</u>
Get to bus by walking	n.a.	93%
Walk 5 min. or less to and from bus	47%	43%
10 min. or less to and from bus	74%	71%
21 min. or more		9%
Wait 5 min. or less	11%	11%
10 min. or less	31%	30%
21 min. or more	39%	41%
Pay 50¢ fare	62%	65%
Senior citizen fare	15%	13%
Student fare	12%	12%
Express fare	10%	7%
Captive Riders	53%	53%
Transfer	52%	52%
Transfer twice or more		8%
Regular Riders (20 or more days/mo.)	74%	73%
Work Trips (to or from)	30%	30%
Express Buses	9%	n.a. (24% Northeast)
Very Satisfied with Metrobus	52%	51%

SOURCE: Ibid.

The proposed late evening route deviation service was dropped due to strong objections from street supervisors. The objections focussed on a prior experience with route deviation, in which there was severe driver abuse. (For example, drivers would tell passengers that they didn't serve the neighborhood.) The street supervisors felt that drivers would take undue advantage of any flexibility granted them. Since the proposed route deviation scheme would leave operating costs essentially unaffected while offering small travel time savings to only a few riders, it was considered not to be worth the risk of the expected driver abuse.

Local service proposals for both peak and off-peak were aimed at improving the efficiency of the existing Route 2. The major local route in the demonstration corridor, Route 2, used to meander 16 miles over an airline distance of 6 miles to serve the three communities of Goulds, South Miami Heights, and Richmond Heights, and then continued north on the corridor trunk, U.S. 1, to the Coral Gables terminal (See Figure 3-4). Minor realignments had already reduced the travel distance by 1 or 2 miles. Route 2 operated at 60-minute headways during most of the day. Three extra trips performed during each peak by trippers provided essentially 30-minute headways for the trunk portion of the route south of South Miami City Hall during peak periods.

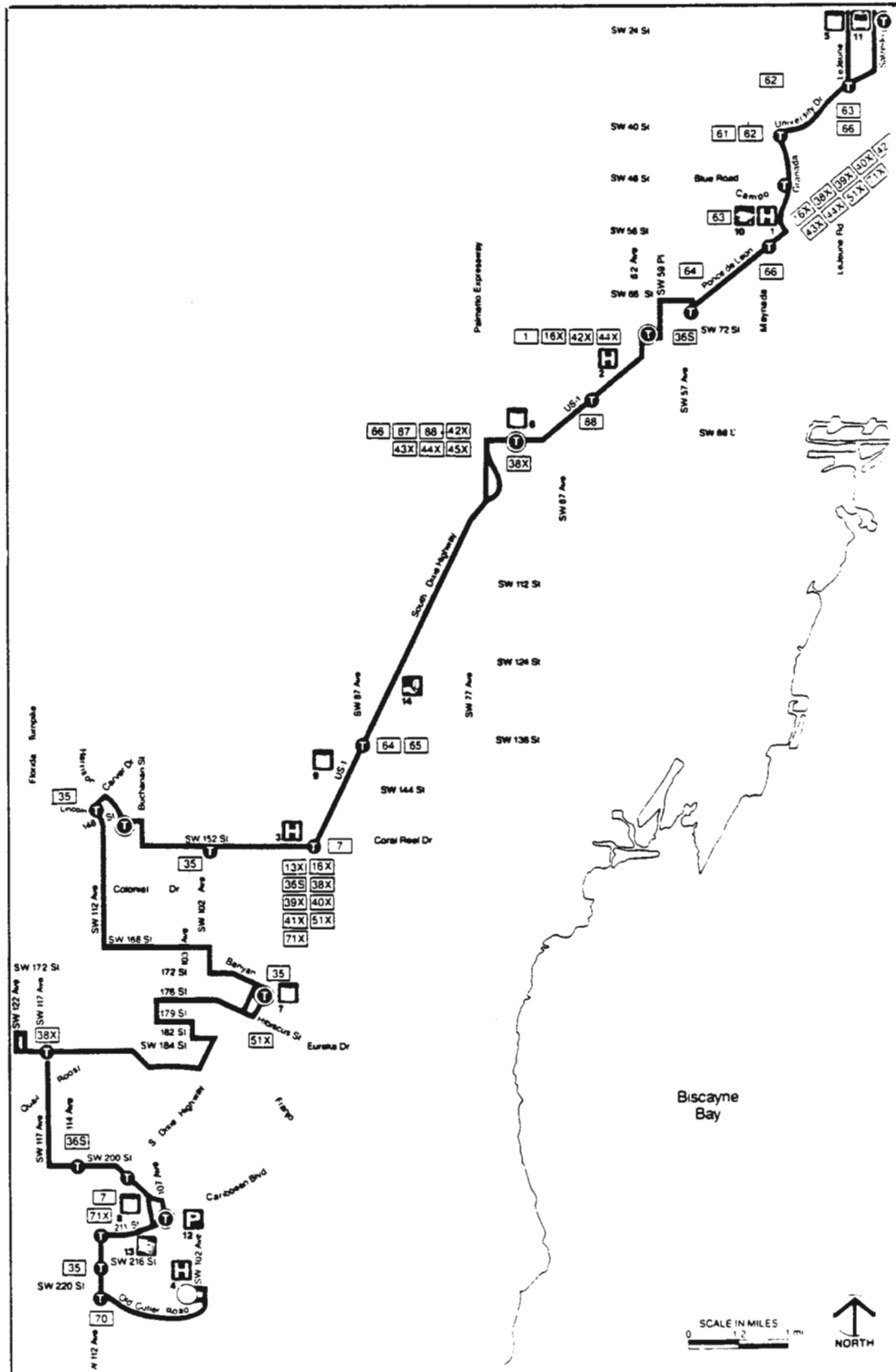
The suburban service concept called for splitting Route 2 into two or three more direct routes that served only one or two neighborhoods each. During the peak the new routes would be long, serving commuters, but in the off-peak they were to be shortened, terminating service before Coral Gables. Two routes replacing Route 2 were scheduled for implementation in January 1983: a new Route 2, following the old alignment in Goulds and South Miami Heights but then following U.S. 1 northward; and new Route 68, following U.S. 1 northward from the Cutler Ridge Mall, then deviating into Richmond Heights following the old Route 2 alignment, and then returning to U.S. 1. The routes' northern termini were different in the peak and off-peak periods:

1. The proposal for peak service was to operate both Route 2 and Route 68 at 60-minute headways. Route 2's northern terminus was at the Coral Gables terminal, while Route 68 terminated at South Miami City Hall like the previous tripper runs.
2. The original proposal for midday service was to have neither route extend into Coral Gables. Supporting this proposal was an origin-destination survey done

S.C.R.T.D. LIBRARY

Figure 3-4

PRE-IMPLEMENTATION ROUTE 2 ALIGNMENT



on May 1981 as a part of demonstration planning which indicated that few midday trips were made between the three Route 2 - Route 68 communities and trunk portions north of Dadeland Mall, and that still fewer went beyond South Miami City Hall. However, on board counts in the summer of 1982 showed that demand going to Coral Gables was twice as high as originally measured, so that midday service to Coral Gables was felt to be a necessity. Consequently, the revised proposal had Route 2 going to the Coral Gables terminal in the off-peak as well as in the peak. In order to preserve some demonstration of the concept of shorter off-peak routes, Route 68 terminated at Dadeland Mall in the off-peak, 1.5 miles short of its peak terminus (South Miami City Hall).

3. Route 2 previously deviated a few blocks on each trip to serve the Morgan Technical School in South Miami Heights. The revised Route 2 made this deviation only when there was a class change, or on about 60% of its trips on weekdays.
4. Public hearings were held in all of the affected neighborhoods. In Richmond Heights, the area losing direct service to Coral Gables, only a handful of residents showed up and there was no opposition. Other neighborhood hearings in Perrine and Goulds had somewhat better turnouts and generally reflected favorable reactions.

A new express route, Route 74X, was implemented in January. Its primary market was a new development west of the Florida Turnpike that had no previous Metrobus service. Two trips per peak period were planned. Since high demand was not expected, and since existing express routes in the corridor had available capacity, the route was designed to terminate when it reached U.S. 1 at the Blue Dash Park/Ride Lot near the Dadeland Mall, where passengers could transfer to express routes going to downtown Miami, Miami's Civic Center, and the airport. The outer half of the route operated on local streets, the remainder on expressway (Routes 874/878).

A second new express route, Route 152X, was also initiated in January. Its primary markets were a Coast Guard housing development west of the Florida Turnpike that previously lacked Metrobus service and the northern part of Richmond Heights which had requested improved service. The route passed through Richmond Heights on its way to U.S. 1 where it began express (limited stop) operation. The greater part of the alignment through Richmond Heights supplemented local Route 68 and restored half-hour service to one area while providing service to a new area.

Two trips per peak period were scheduled. The Coast Guard housing promised such great demand that Metrobus expected the first bus to be filled and consequently had it continue into downtown Miami. The second trip had its northern terminus at the Blue Dash Park/Ride Lot, like Route 74X.

Finally, another proposed change was to reroute express Route 71X (two trips per peak period) via the Florida Turnpike rather than via the existing U.S. 1 alignment. However, the Turnpike alignment would leave run time unchanged in the morning, reduce run time by at most 5 minutes in the evening, and in neither case affect operating cost measurably. The planner's justification for the realignment was that passengers boarding at Cutler Ridge Mall would be attracted to Route 71X because it would be perceived as quicker (indeed, speeds would be higher but travel distance longer). By thus filling Route 71X, perhaps an express trip serving Cutler Ridge Mall could be saved. However, the proposal was dropped due to overwhelming opposition from Route 71X riders who believed that the realignment would result in a loss in ridership on the route.

Additional changes which were implemented included reroutings of Route 63 (to eliminate duplication of service with another route); elimination of the 39X express; removing a duplicative and circuitous loop on the 40X express, routing of the 64/65 to a new shopping center; shortening and rerouting the 70 to include a small neighborhood which was previously served by Route 2, and minor route modifications on the 36S.

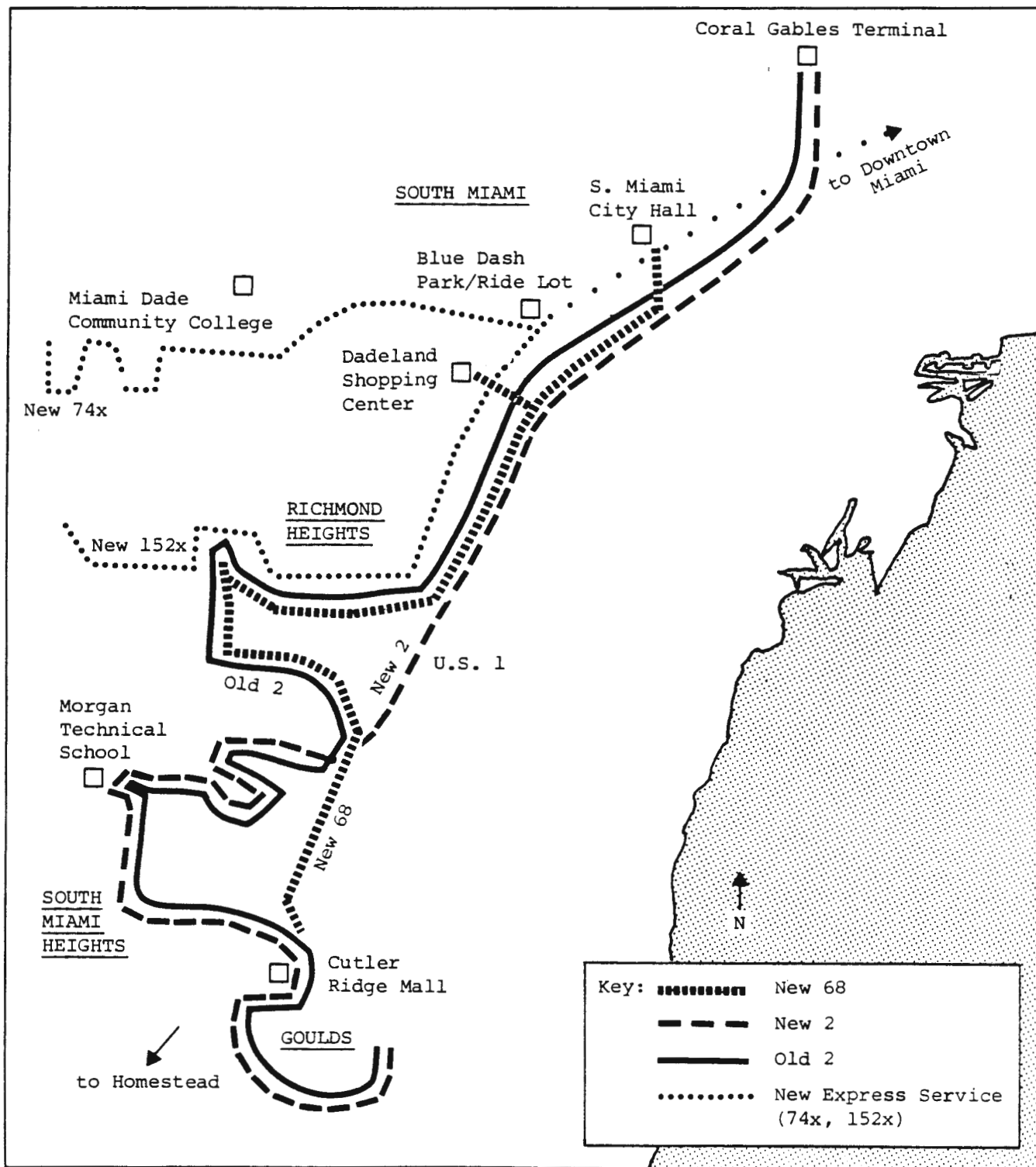
Many of the small routing changes took place during late 1981 and 1982 and served to reduce total route miles. The evaluation did not study the effects. This evaluation report focusses on the major changes which were finally implemented: (See Figure 3-5)

1. the modification of old Route 2 (a long circuitous route) into new and more direct Routes 2 and 68
2. the introduction of short peak-hour express bus services (Routes 74X and 152X) most of whose trips terminate at a park-and-ride lot rather than proceed downtown.

The modification to Route 2 provided more direct service from two neighborhoods to a trunk line where transfers to express service could take place. In the case of one neighborhood, the benefit was obtained at the expense of some local travelers whose trip could not be made on the shortened Route 68 without transferring to another local route. It was hoped that passengers in this neighborhood would be compensated

Figure 3-5

REVISED SOUTH DADE DEMONSTRATION ROUTES



by the availability of express service on new Route 152X whose service area overlaps with that of Route 68 in some respects. Unfortunately, passenger reactions evidenced by complaints and written petitions for restoration of the old service indicated that the Route 2 changes were not welcomed by the riders. The implementation process is described below.

3.5 IMPLEMENTATION

On January 31, 1983, the changes to Route 2 went into effect. These changes were advertised with an insert in the "shopper advertiser" that is routinely delivered to all households in the neighborhood (see Figure 3-6). This advertisement also included a free coupon good for a ride on the new express service that was redeemable during the first week of operation.

Within a few days of implementation, unexpected passenger complaints were received. Thirteen complaints were received during the first week and nearly 30 were received in the first two months of service. These complaints largely revolved around the long transfer times that would be necessary for users of the new Route 68 during evening and weekend hours when the Route terminated at Dadeland. This was a particular problem for nurses at the South Miami Hospital. As a result, Metrobus responded to the community with a service change that extended Route 68 to South Miami City Hall (just beyond the Hospital) during the problem time periods. This left only the midday period as a test of the shortened Route 68 concept. During those hours the Route 66 is available to Route 68 riders who wish to transfer for trips beyond Dadeland. The Route 68 extension went into effect promptly on February 9th.

While the above change solved some of the problem, there were additional complaints regarding the transfer from Route 68,. This resulted because changes in the Route 66 schedule caused transfer times between Route 68 and 66 to be longer than originally designed. A petition was also submitted to Metrobus signed by 72 residents of the Route 68 area requesting a return to the former route structure in the Route 2 corridor.

On April 10th, a service change was made which reduced transfer times between Route 66 and 68 and helped to reduce passenger complaints. This was advertised to riders in rider notice. (See Figure 3-7). Nevertheless, the ridership on Route 68 failed to meet the Metro standard of one-half the system average revenue per mile and, in light of the petition, it was decided to recombine Routes 2 and 68 in the next possible line-up. Since the July line-up was not to include substantial service changes, the routes were recombined as the new Route 110 and data was collected for evaluation immediately preceding the change, one year after the "before" data.

The Metropass Express Gold Card



**Traveling by bus is easier when you
carry the Metropass Express gold card**

Ride all month, no transfers or coins. Use it anytime on any Metrobus express, local, shuttle and special route. Simply show your Metropass Express gold card to the bus operator when boarding the bus.

Save money!

The Metropass Express gold card is available for \$40.00 a month. Also available is the Local pass for \$30.00 a month and the Discount pass for \$15.00 a month.

Extra Bonus!

Get a discount admission by showing your Metropass at:

- Metropolitan Museum and Art Center
- Spanish Monastery
- Coral Castle
- Space Transit Planetarium
- Museum of Science
- Metrozoo
- Orchid Jungle
- Monkey Jungle
- Vizcaya
- Serpentarium
- Planet Ocean
- Historical Museum

For details on where to purchase, call 638-6777.

METROPASS: Why ride the bus without it?



FREE EXPRESS TRIP COUPON INSIDE



**BEGINNING JANUARY 31
NEW EXPRESS SERVICE
COMING YOUR WAY!**

INSERT AD

Figure 3-6

AND WE'LL BE GOING WHERE WE'VE NEVER GONE BEFORE!

ROUTE 74 EXPRESS

Serving the communities of The Crossings, Cypress, Devon Aire, Summit Park, Sabal Chase, Glen Cove, and MDCC-South Campus

Travelling between SW 137 Avenue at 104 Street and the Blue Dash Park-Ride lot on SW 80 Street at 72 Avenue

ROUTE 152 EXPRESS

Serving Deerwood, the U.S. Coast Guard Housing Complex, Coral Woods, Coral Villas, and Richmond Heights

First AM and PM trips to and from SW 127 Avenue at 147 Street and Downtown Miami. Second AM and PM trips to and from the Blue Dash lot with connections to other express buses.

YOUR FIRST TRIP'S ON US!
FREE EXPRESS TRIP COUPON INSIDE.



ROUTE 2 TO CHANGE JAN 31. SEE INSIDE FOR DETAILS.

YOUR FIRST TRIP ON NEW EXPRESS ROUTES 74 AND 152 IS ON US!

For one free one-way trip on the 74 Express or 152 Express, present the coupon below to the bus operator. (Free transfer ticket provided when boarding, only upon request.) This offer is good for one week, from January 31 to February 4, 1983.

ROUTE 74 EXPRESS ROUTE 152 EXPRESS

WEEKDAY EASTBOUND			
SW 137 Ave & 104 St	SW 122 Ave & 112 St	SW 104 St & 109 Ct	Blue Dash Park-Ride
6:30	6:40	6:45	6:55
7:10	7:20	7:25	7:35

WEEKDAY WESTBOUND			
Blue Dash Park-Ride	SW 104 St & 109 Ct	SW 122 Ave & 112 St	SW 137 Ave & 104 St
5:00	5:10	5:15	5:25
5:40	5:50	5:55	6:05

WEEKDAY NORTHBOUND				
SW 127 Ave & 147 St	SW 103 Ave & 152 St	Blue Dash Park-Ride	SE 3 Ave & 1 St	Bisc Blvd & 15 St
6:21	6:37	6:54	7:20	7:26
6:52	7:08	7:25	-	-

WEEKDAY SOUTHBOUND				
Bayshore Dr & 15 St	Miami Ave & 1 St	Blue Dash Park-Ride	SW 103 Ave & 152 St	SW 127 Ave & 147 St
4:02	4:12	4:38	4:55	5:11
-	-	5:45	6:02	6:18

SERVICE ON 66 METROBUS ROUTES WILL CHANGE SUNDAY, JANUARY 30, 1983

These Routes are affected:

1, 2, 3, 4, 5, 6, 6 Special, 9, 10, 11, 12, 13x, 14, 14 Beach, 15, 19, 20, 21, 21 Special, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 33, 34, 35, 39x, 41x, 42x, 44x, 45x, 47x, 49x, 50x, 51x, 53, 56, 58, 59x, 63, 64, 65, 66, 77, 83, 87, 88, A, C, D, G, K, L, M, O, R, S, T, X, Roun'towner

Watch for the METROBUS Service Change Information free take-one or call 638-6700 for details.

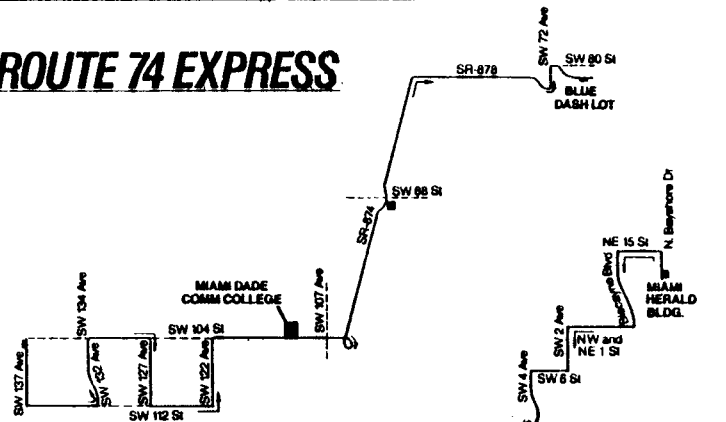
METROBUS Telephone Information Services

METROBUS Route Information	638-6700
Comments/Suggestions	638-6600
Maps By Mail	638-6137
METROPASS Hotline	638-6777

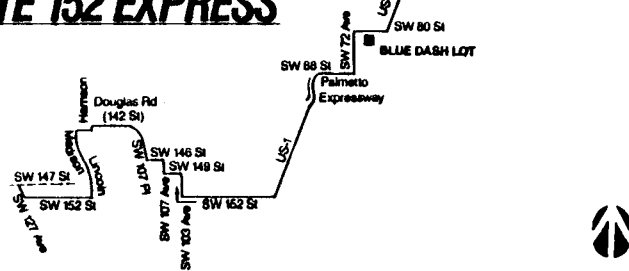
METROBUS We wouldn't go anywhere without you

This advertisement was paid for in part by a Demonstration Grant from the Urban Mass Transit Administration
Dade County Transportation Administration Transit Marketing and Sales Miami, Florida 33152

ROUTE 74 EXPRESS



ROUTE 152 EXPRESS



ONE FREE (ONE-WAY) TRIP ON EXPRESS ROUTES 74 OR 152 ONLY

Give this coupon to the bus operator when boarding. Offer good for one week from January 31 to February 4, 1983.

(Free transfer upon request.)



INSERT AD

Figure 3-6 (Continued)

IMPROVED ROUTE 2 MADE SHORTER TO PROVIDE MORE DIRECT SERVICE

NEW ROUTE 68 WILL PROVIDE ADDED SERVICE

Federal funds have made it possible for METROBUS to make improvements to Route 2. The new local Routes 2 and 68 will more effectively serve the same area with more direct service.

ROUTE 68

Serving Cutler Ridge Mall, Perrine Plaza, Richmond Heights, and Dadeland during off-peak hours, with trips continuing to South Miami (Sunset Drive at SW 61 Avenue) during peak hours only.

ROUTE 2

Travelling from Goulds, Cutler Ridge Mall, South Miami Heights, Perrine Plaza, Dadeland, and South Miami to the Coral Gables Bus Terminal (weekday stops at the Robert Morgan Vocational School for class changes only).

A.M. WEEKDAY NORTHBOUND			
Leave Cutler Ridge	Perrine	Dadeland	Arrive Sunset 81 Ave
-	5:25	5:49	5:54
-	6:20	6:48	6:53
7:13	7:23	7:54	8:02

Buses run approximately once an hour.

10:10 P.M.	10:20	10:44	-
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A.M. WEEKDAY SOUTHBOUND			
Leave Sunset 81 Ave	Dadeland	Perrine	Arrive Cutler Ridge
6:03	6:08	6:37	6:46
7:02	7:08	7:39	7:49
8:09	8:15	8:46	8:56

Buses run approximately once an hour.

-	11:15 P.M.	11:41	11:49
---	------------	-------	-------

A.M. WEEKDAY NORTHBOUND		
S. Dade Health Center	Dadeland	Coral Gables Terminal
-	5:31	5:53
5:40	6:28	6:53
6:43	7:35	8:00
7:43	8:35	9:00

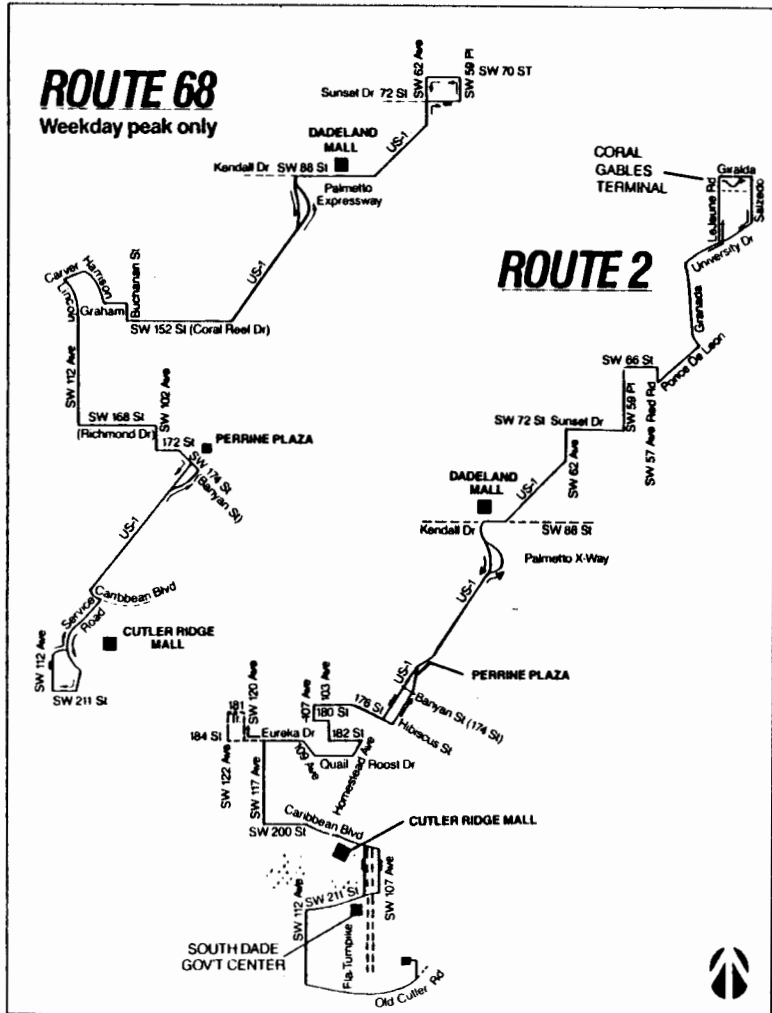
Buses run approximately once an hour.

9:46 P.M.	10:32	10:53
10:44	11:28	11:49

A.M. WEEKDAY SOUTHBOUND		
Coral Gables Terminal	Dadeland	S. Dade Health Center
6:03	6:23	7:13
7:00	7:23	8:17
8:18	8:41	9:30

Buses run approximately once an hour.

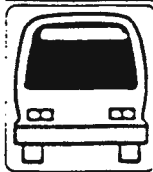
10:18 P.M.	10:38	11:25
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*Routes 2 and 68 hourly weekend service available. For route guides, call 638-6137.

Figure 3-7

ROUTE 68 SERVICE CHANGE NOTICE



Route 68
Rider Notice

THE ROUTE 68 SCHEDULE WILL CHANGE
TO PROVIDE A REDUCTION IN WAITING TIME FOR TRANSFERRING PASSENGERS

BEGINNING APRIL 10, 1983, passengers traveling northbound from Richmond Heights to Coral Gables can take Route 68 and transfer to Route 66 at either Dadeland or South Miami. During morning rush hours, Route 152 Express also serves Richmond Heights at 6:30 AM and 7:30 AM and will provide service to Sunset Drive/61 Avenue via the Park-Ride lot at SW 80 Street/72 Avenue.

Southbound passengers traveling to Richmond Heights from the Coral Gables Bus Terminal can take Route 66 from the Terminal to either Sunset Drive/61 Avenue or Dadeland. Route 152 Express afternoon trips will also serve South Miami at 4:33 PM and 5:40 PM before continuing to Richmond Heights via Dadeland.

A schedule of Route 68 connections to and from Routes 1, 2, 66, and 152 Express is provided below.

AM - NORTHBOUND: CONNECT TO ROUTE 66 OR 2 FOR GABLES TERMINAL

	Cutler Ridge	Perrine	Richmond Heights	Dadeland	Sunset 61 Ave	Gables Terminal	Downtown Miami
Rt 67	-	5:05 AM	5:15	5:30	5:35 Rt 2 @ 5:38	5:53	6:30 Rt 1 @ 5:45
Rt 68	-	5:58	6:11	6:26	6:33 Rt 2 @ 6:36	6:53	7:30 Rt 1 @ 6:45
					Rt 66 @ 6:50	7:15	
					Rt 152x @ 6:30	6:50	7:20
					Rt 152x @ 7:00	7:21	7:30 (end)
Rt 68	7:07	7:17	7:30	7:48	7:56 Rt 66 @ 7:50	8:15	8:50 Rt 1 @ 8:05
Rt 68	8:07	8:17	8:30	8:48	8:56 Rt 66 @ 8:50	9:15	10:00 Rt 1 @ 9:15

PM - SOUTHBOUND: TAKE ROUTE 66 FROM GABLES TERMINAL TO SUNSET OR DADELAND FOR ROUTE 68

	Gables Terminal	Sunset 62 Ave	Dadeland	Richmond Heights	Perrine	Cutler Ridge
Rt 66	2:20 PM	2:40	2:45			
Rt 68		3:00	3:06	3:24	3:37	3:47
Rt 66	3:20 PM	3:40	3:45			
Rt 68	-	4:00	4:06	4:24	4:37	4:47
Rt 152x from Miami	4:33	4:40	4:55			
Rt 66	4:20	4:40	4:45			
Rt 68	-	5:00	5:06	5:24	5:37	5:47
Rt 66	5:20	5:40	5:45			
Rt 152x		5:40	5:47	6:00		
Rt 68	-	6:00	6:06	6:24	6:37	6:47

For additional information, call METROBUS Route Information at 638-6700.



Transfers turned out to be a key issue inhibiting the growth of ridership on the new express routes as well. Route 74X operated service only to the Blue Dash lot where continuing passengers had to transfer to downtown or airport expresses. On Route 152X, only the earlier of the two peak hour trips proceeded into downtown Miami; the later trip terminated at the Blue Dash lot. The 74X did very poorly from the start with only a handful of passengers on a.m. and p.m. peak trips. The 152X enjoyed greater patronage on the early downtown-bound trip with 20-30 passengers by May but only about 10 passengers on the later short express bus.

Because of the generally low response to the express routes, Metrobus tried during February to refine the design and market the service more vigorously. For Route 152X, flyers were redistributed at the Coast Guard housing which was originally expected to be a major generator. The schedule of the 74X was adjusted to leave later in the a.m. and held the early p.m. bus until the express bus from downtown arrived.

These improvements helped a little. However, by June, other changes were considered to boost ridership further, since the routes did not generate sufficient ridership to continue, except for one 152X trip. Route 74X was made less circuitous and was extended to a new development otherwise lacking service. This change went into effect in July. In December, following the "after" study, the earlier 152X trip and the 74X, which required transfers for downtown-bound trips were made local fare routes (Routes 122, 74). In April 1984, Route 122 was terminated and Route 152X was rerouted to start in Perrine (which had lost some service in the Route 2-68 changes) and to exclude the Coast Guard housing.

4. EVALUATION OF THE IMPACTS OF THE SOUTH DADE SERVICE CHANGES

This section presents the evaluation findings regarding the impacts of the service changes in South Dade on level of service, ridership and operator economics. The level of service and ridership impacts are presented first for the Route 2 corridor and then for the new express routes.

4.1 ROUTE 2 CORRIDOR LEVEL OF SERVICE AND RIDERSHIP

4.1.1 Peak Period Changes

The changes in the peak period Route 2 operation preserved 60-minute headways in the off-trunk neighborhoods and 30-minute average headways on the trunk south of South Miami City Hall. However, direct service was no longer to be provided between the two (new) Route 2 communities, Goulds and South Miami Heights, and the Route 68 community, Richmond Heights. Except for the Morgan Technical School and a small industrial area in South Miami Heights, there are no attractors in these communities and so little intercommunity travel was expected. Passengers traveling between Richmond Heights and points north of South Miami City Hall no longer had direct service either, but had to transfer at the City Hall. Nevertheless, it was expected that most Route 2 travelers would save 5 to 10 minutes of travel time because their trips would be less circuitous.

It was anticipated that new ridership arising from the small time savings would be too small to measure. Ridership losses due to the elimination of direct access were also expected to be small, because little demand was believed to exist between the points with interrupted access.

4.1.2 Off-Peak Period Changes

The off-peak changes in Route 2 caused the same access interruptions and travel time reductions as in the peak. In addition, direct service was no longer available to Richmond Heights residents traveling to and from points between the Dadeland Mall and the South Miami City Hall.

The changes also increased the number of buses on the trunk between Richmond Heights and Dadeland by one, since both the new Route 2 and Route 68 traversed this segment. Since the trunk was also covered by the off-peak Route 36S, with a frequency of one run per hour, the overall frequency rose from two to three trips per hour. Headways previously were not a constant 30 minutes, and they were not a constant 20 minutes in the new schedule, due to scheduling constraints. The theoretical average wait time, which was about 19 minutes, was expected to diminish to about 12 minutes with the new schedule, benefiting people traveling within this 5-mile segment.

It was anticipated that any ridership gain due to the shorter wait times along the trunk would be small, but probably the greatest positive level of service impact of the Route 2 changes.

4.1.3 Analysis

In order to examine the actual level of service and travel behavior impacts of the Route 2 changes, we have divided the old route into several analysis segments as shown in Figure 4-1. Riders from each segment experience somewhat different level of service changes, as shown in Table 4-1. While zones 4 and 9 (Richmond Heights) suffer from a lack of direct service into Coral Gables and most significantly in the off-peak when new Route 68 service is short-turned at Dadeland Mall, these zones also suffer a doubling of headway from 30 to 60 minutes during peak hours. On the other hand, zones 3 and 10 (south of Dadeland) benefit in the off-peak by a halving of the headway from 60 minutes to 30 minutes.

Ridership counts were conducted on selected runs of pre-implementation and post-implementation routes. Table 4-2 shows the change in riders per hour for each segment where these changes were significant at the 98% confidence level (5% significance level). For the most part, the measured changes correspond to the expected changes. Table 4-3 shows qualitatively the expected ridership effect and the measured effect. Overall, the ridership in the corridor as a whole dropped 21% in the a.m. peak period, 8% in the mid-day period and 12% in the p.m. peak period. (No significance test has been performed for this aggregate ridership loss.)

MDTA utilizes a formula to convert revenue to ridership. Table 4-4 shows the estimated monthly ridership figures and the difference between 1982 (pre-demonstration) and 1983 (demonstration) figures. Note that a 10% increase is shown between November 1982 and 1983, while the traffic analyst counts conducted over several days during those months showed a 21%, 8% and 12% decrease in passengers per hour for the a.m. peak, mid-day and p.m. peak periods respectively. The MDTA data is believed to be less reliable than the direct counts. (Recently, MDTA has detected deficiencies with its

Figure 4-1

ANALYSIS ZONES IN THE ROUTE 2 CORRIDOR

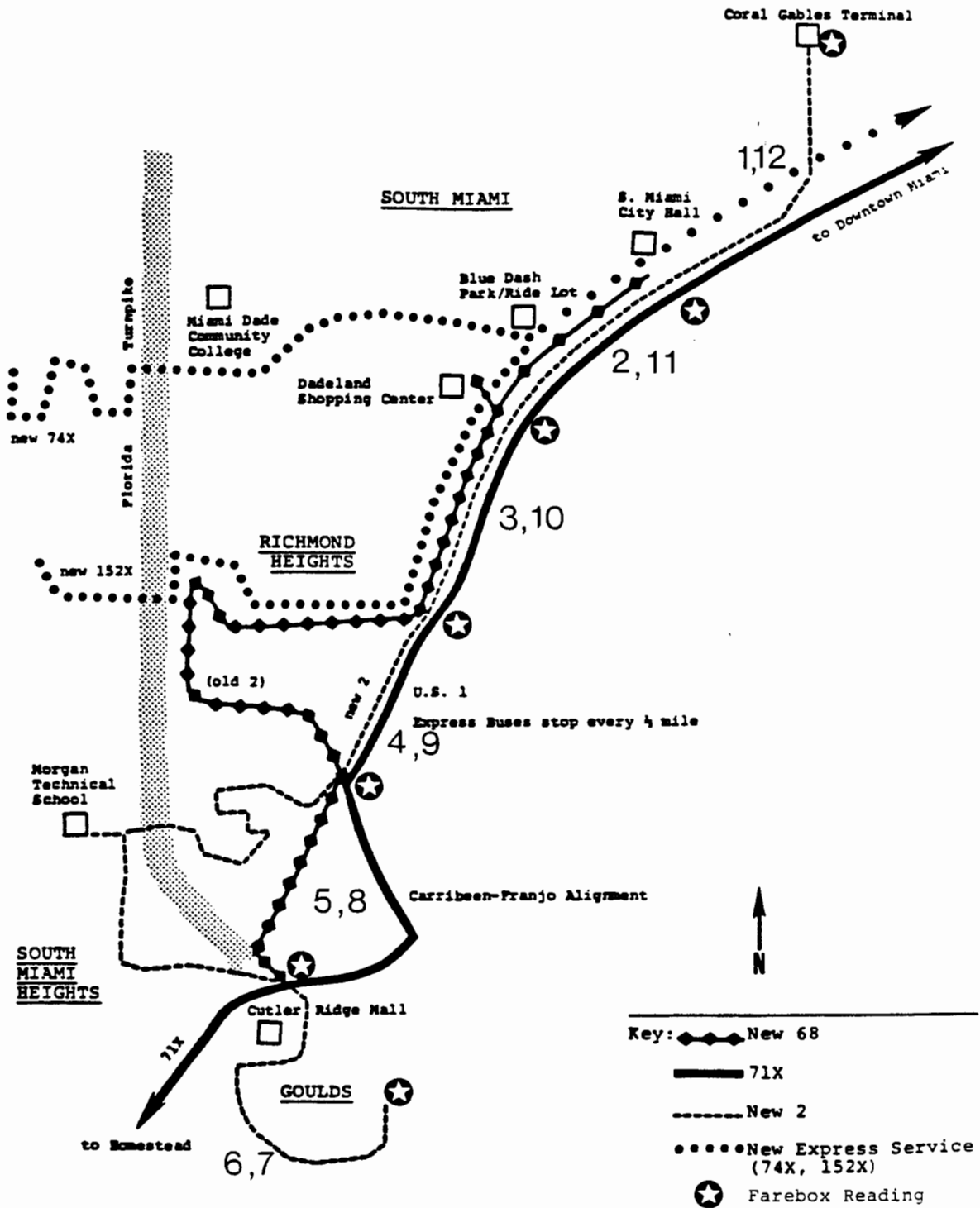


Table 4-1

ROUTE 2 SERVICE CHANGES

<u>Area</u>	<u>Zone</u>		<u>Before</u>		<u>Before</u>	<u>After</u>		<u>After</u> <u>Routes</u>
	<u>SB</u>	<u>NB</u>	<u>Peak</u>	<u>Off</u>	<u>Route</u>	<u>Peak</u>	<u>Off</u>	
Coral Gables to So. Miami	1	12	60	60	2	60	60	2
So. Miami to Dadeland	2	11	30	60	2	30	60	2,68 (peak)
Dadeland to SW 152 St.	3	10	30	60	2	30	30	2,68*
Richmond Hts.	4	9	30	60	2	60	60	68**
So. Miami Heights	5	8	60	60	2	60	60	2**
Goulds	6	7	60	60	2	60	60	2+

* Two peak hour trips are also available on Route 152X, an express Route on SW 152nd St.

** Passengers may walk to US 1 to utilize the other route.

+ Route 68 covered a small portion of the old Route 2 alignment in this area.

Table 4-2

SIGNIFICANT DIFFERENCES IN RIDERS PER HOUR (95% CONFIDENCE)
 (Based on ridership counts performed in November 1982 and 1983)

<u>Segment</u>	<u>Route 2 vs.</u>	<u>AM Peak</u>	<u>Mid-day</u>	<u>PM Peak</u>
<u>Southbound:</u>				
1	Route 2	X	X	X
2	Route 2 & 68	X	X	X
3	Route 2 & 68	X	+22 (+208%)	X
4	Route 68	X	X	-10 (-56%)
5	Route 2	X	-9 (-57%)	+12 (+44%)
6	Route 2	X*	X	X
<u>Northbound:</u>				
7	Route 2	X	X	-8 (-54%)
8	Route 2	X	X	X
9	Route 68	-29 (-51%)	X	-9 (-56%)
10	Route 2 & 68	X	+16 (+198%)	X
11	Route 2 & 68	X	X*	X
12	Route 2	X	X	X

NOTE: X indicates no significant difference.

* A significant difference was detected that was too small to be important.

Table 4-3

EXPECTED VS. MEASURED EFFECTS

Seg- ment	AM Peak			Midday			PM Peak		
	Expected Headway Effect	Expected Transfer Effect	Measured Effect	Expected Headway Effect	Expected Transfer Effect	Measured Effect	Expected Headway Effect	Expected Transfer Effect	Measured Effect
<u>Southbound:</u>									
1									
2									
3				+	0	+			
4	-	-	0	0	-	0	-	-	-
5				0	0	-	0	0	+
6									
<u>Northbound:</u>									
7							0	0	-
8									
9	-	-	-	0	-	0	-	-	-
10				+	0	+			
11									
12									

Key: + indicates positive effect on ridership, - negative effect, 0 no effect
(shown only on segments with some expected or measured effect)

Table 4-4

MONTHLY RIDERSHIP (Estimates by MDTA based on revenue)

--1982--		-----1983-----			Comparison	
Month	Pre-	Demonstration Service			Change	% Change
	Demonstration	Route 2	Route 68	Routes 2 & 68		
Jan	64,216	52,960	939*	53,899	-10,317	-16
Feb	57,196	33,937	16,354	50,291	- 6,905	-12
Mar	61,809	40,108	19,315	59,423	- 2,386	- 4
Apr	56,890	39,380	18,032	57,412	+ 522	+ 1
May	56,505	39,761	17,666	57,427	+ 922	+ 2
June	54,911	37,460	17,931	55,391	+ 480	+ 1
July	57,266	38,650	18,617	57,267	+ 1	0
Aug	54,490	40,904	20,530	61,434	+ 5,944	+11
Sept	55,352	40,592	19,079	59,671	+ 4,319	+ 8
Oct	57,738	41,858	20,446	62,304	+ 4,566	+ 8
Nov	54,858	41,252	19,211	60,463	+ 5,605	+10
Dec	55,349	46,941	2,360**	49,301	- 6,048	-11

--1983--		-----1984-----		Comparison	
Month	Demonstration	Post-Demonstration Service		Change	% Change
	Routes 2 & 68	Route 110			
Jan	53,899*	50,206		- 3,693	- 7
Feb	50,291	46,792		- 3,499	- 7
Mar	59,423	49,370		-10,053	-17

* Route 2 was split on January 30, 1983

** Routes 2 and 68 were recombined on December 4, 1983

revenue-ridership conversion formula, although fare payment-boarding counts conducted before the demonstration in 1982 indicated that the formula was fairly accurate at that time.) Therefore, the MDTA ridership estimates are shown here to examine the trend rather than the specific ridership level. Figure 4-2 shows the estimated monthly ridership on Routes 2 and 68 before, during and shortly after the demonstration, based on Metrobus revenue data. Note the trend before the changes was declining ridership (of about 420 riders per month) while the trend after the change seems to be increasing ridership by approximately the same rate. The change cannot be attributed solely to service changes; marketing associated with the changes as well as other factors may have had some effect. Furthermore, while the MDTA's figures show a decline in ridership when the routes were recombined, it is not known what longer term ridership impacts would be, particularly since Metrorail service began in May accompanied by marketing and route changes. The first few months after recombination seem to point to a ridership decline and MDTA reported that riders making longer distance trips on Route 2 complained about the slow, circuitous trips on the new Route 110. (Similar complaints had been an impetus for the route split in the first place.)

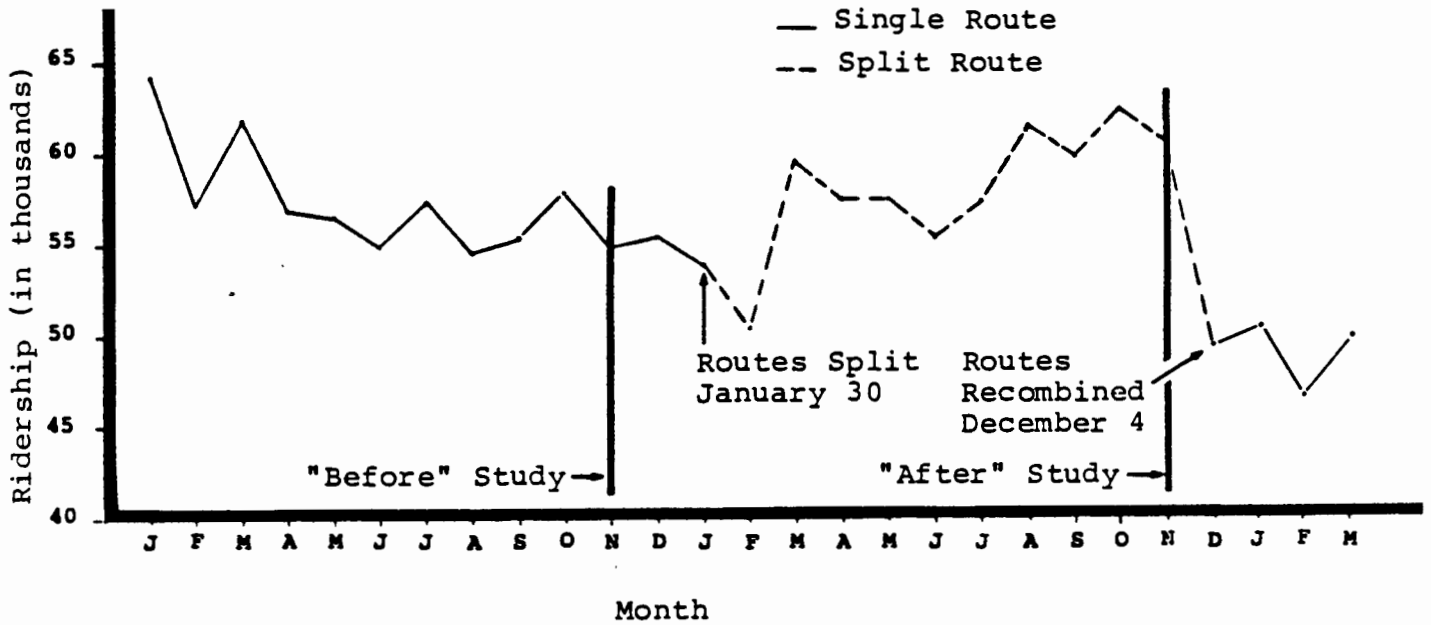
It is difficult to draw conclusions from the demonstration, other than the fact that some riders benefited from the demonstration changes in the Route 2 corridor while others lost out, and that this situation was reversed with the restoration of a single route. (It should be noted that other route changes that were introduced along with Metrorail start-up ameliorated the original service problem, by offering disgruntled long-distance riders an alternative direct service so that they would not have to use the circuitous Route 110. Thus, the demonstration appears to have failed to offer a superior service, but merely traded off benefits between two neighborhoods. With any such change, complaints are likely to result, and to be more vocal than favorable comments by those who benefit. Apparently, for the MDTA, restoring the old service was the best public relations strategy.

4.2 EXPRESS ROUTE RIDERSHIP

The new express routes, targeted to serve new residential developments, were expected to generate demand. Metro believed these changes were consistent with the demonstration objective of increasing productivity in suburban communities previously receiving conventional local service, since the areas served were not entirely new service areas. On the other hand, it is not really clear that the changes represent a reappportionment of existing resources. In a sense, they involved additional service. Each new route had a local portion in neighborhoods

Figure 4-2

MONTHLY CORRIDOR RIDERSHIP (Based on Revenue)



that previously had service. Overall the number of diverted and generated riders from the old neighborhoods was expected to be quite small.

4.2.1 Route 74X:

As described in Section 3.5, from its initiation, Route 74X did very poorly in attracting riders. Only a handful of riders used the route. Adjustments were made to the schedule to better reflect travel patterns and the earlier p.m. bus was held at Blue Dash until the express bus from downtown arrived. Later, in July 1983, the route alignment was changed to eliminate its circuitry and to serve a new neighborhood. In October 1983, northbound a.m. peak period counts at Blue Dash for three days showed an average of only 47 passengers per a.m. period or 23 per bus.

By April 1984, Route 74X carried 371 passengers per month as compared to 188 one year earlier; the mileage had also increased from 1,776 to 2,204. Thus, the route carried 0.17 passengers per mile. Route 74 was eliminated in November 1984, since ridership has been poor and mileage cuts are necessitated by budget constraints. Metrobus hoped to cover some of the new service areas of Route 74 with other local routes which now provide access to Metrorail.

4.2.2 Route 152X

By May 1983, Route 152X served 20-30 riders on its early trip which proceeded to downtown but had attracted only about 10 passengers on its shorter trip. In July 1983, to boost ridership, the route was extended into Perrine which had lost some service as a result of the Route 2 corridor changes and the Coast Guard housing, originally expected to be a major generator, was dropped from the route. Three days of counts in October 1983 found Route 152X carrying an average of 34 passengers per a.m. peak period or 17 per bus. The average, of course, blurs the fact that the early trip was quite successful. The later Route 152X trip eventually became local Route 122. By April 1984, the single trip Route 122 was discontinued since it still had not generated ridership. It was believed that its conversion to a Route 110 tripper would generate more ridership. The remaining 152X carried 1,142 passengers per month and had a mileage of 1,957 (0.58 passengers per mile). Note that one year earlier the route carried 1,114 passengers with a mileage of 3,003 (0.37 passengers per mile). By November 1984, Route 152 was discontinued, since local service on Route 110 provides adequate access to Metrorail for downtown trips. (With Metrorail transfers required, single trip routes create problems for outbound p.m. service.)

4.3 OPERATOR IMPACTS

The only significant operator impacts expected to occur were the costs of vehicle-hours (and vehicle-miles) of service. Route 2 previously used four vehicles all day long, with two additional tripper runs in each peak. The schedule was very inefficient, with layover consuming 70 of the 240 minutes or 29% of turnaround time for the four regular runs. (The same trips could be made with three runs if layover were reduced to 10 minutes.) In the new schedule, Route 2 needed three vehicles and Route 68 two. The new schedule was much more efficient, with layover consuming 12% of running time. The result was a net increase of one vehicle in the off-peak and a decrease of one in the peak to serve the Route 2 corridor.

Route 74X had its two morning trips 40 minutes apart and its two evening trips about 60 minutes apart. One vehicle served both evening trips, and one vehicle made the 20-mile morning round trip in 40 minutes.

Route 152X needed two vehicles in the morning peak but only one in the evening peak. The difference was due to the fact that the earlier of the two Route 152X trips extended into downtown Miami. In the evening one vehicle had only to deadhead to the Blue Dash Park/Ride Lot between trips.

Overall, then, the changes in both the Route 2 corridor and express bus services called for one net additional bus in the morning peak, one additional bus in the evening peak, and one additional bus off-peak (midday, evening, and weekends). This increase in operator costs appears to be in conflict with the objectives of the demonstration, which are to either maintain level of service at lower operator costs, or to maintain operator cost while raising level of service. However, the demonstration balances the service increases against service cuts that had been implemented in the South Dade area since the demonstration began in July 1981. Measured in annual vehicle miles, total service provided in South Dade with the demonstration changes was about 0.3% less than the July 1981 level (See Table 4-5). However, the majority of the cuts that offset the demonstration service increases were reductions in service on weekends and in late evening and in areas not affected by the demonstration improvements. Finally, the assumption that operator cost changes are proportional to vehicle mileage changes probably would overestimate the cost savings, since many of the changes instituted by Metrobus were minor realignments that reduced mileage but left the number of runs unchanged. Nevertheless, this is how Metro typically calculates cost changes.

Table 4-5

ANNUAL MILEAGE OF SOUTH DADE ROUTES

ROUTE	Total annual miles as of:	Mileage differences
	JULY 19, 1981 Pre-Demonstration	JULY 19, '81 & JAN. 30 '83
2 & 68	477,588	+ 45,218.6
7	32,283	- 15,198.0
35/70	727,855.7	- 80,001.9
36 Sp	192,858	+ 14,454.5
63/66	288,308.5	- 60,211.0
64/65	138,643.5	+ 14,025.0
13X	38,607	+ 11,424.0
16X	185,436	+ 28,381.5
38X	101,235	+ 33,201.0
39X	36,159	- 36,159.0
40X	86,827.5	- 7,165.5
41X	46,155	- 21,318.0
51X	63,418.5	+ 2,014.5
71X	36,057	+ 6,655.5
74X		+ 21,318.0
152X		+ 36,618.0
TOTAL	2,451,431.7	- 6,742.8

5. CONCLUSIONS AND TRANSFERABILITY

5.1 CONCLUSIONS

The Miami demonstration aimed at improving Metrobus level of service and operating efficiency in a selected corridor through a program of route simplification. Once the demonstration was shifted from Miami Beach to the South Dade corridor, the route simplification program became MDTA's "suburban service concept." This was a series of route modifications tailored to the needs of peak commuters and off-peak local travelers. Due to reductions in the scope of the South Dade demonstration, the suburban service concept as originally proposed was never fully tested. Nevertheless, Metrobus planners did test out in one corridor a route configuration that they believed would provide superior service to that offered by the pre-demonstration route structure. However, the actual effect of the change was to reduce level of service in one neighborhood and improve level of service in another. The data collected as part of the project indicated that ridership decreased significantly in the areas affected by the additional transfer and increased significantly in areas which gained more direct service. The overall ridership effect was a loss -- boarding counts conducted over several days in November 1982 and 1983 indicated an overall decline in ridership of 10 - 20%.

MDTA staff under-estimated the negative impacts on and the reaction of residents in one neighborhood who had to transfer as a result of the service change. Decreasing service to some existing riders in one neighborhood while trying to attract new riders from another neighborhood is certainly unpopular and MDTA chose to restore the old service rather than endure passenger complaints.

The express bus component of the demonstration was a failure in that insufficient ridership was generated on all express routes which required passengers to make a transfer. The shuttle express concept tested in two different neighborhoods seems to be a poor one.

The apparent resistance of all market segments to transferring from one bus to another is perhaps the single inference that can be drawn from the entire demonstration. The

first phase of the project, Miami Beach Zoned Bus, led MDTA to the conclusion that it was difficult to market a more efficient route structure which would require transfers, in part due to the resistance of elderly passengers. However, the MDTA abandoned the concept before giving it a full test and shifted the project to an area that it felt would be less resistant to change. In general, the shift to South Dade, where the percent of elderly residents is very small, did not change the results. Riders in South Dade objected to route changes that required transferring. The demonstration was complicated by the fact that changes in the schedule of another route made these transfers more onerous. The experience of the demonstration could have serious implications for MDTA which has recently implemented Metrorail in South Dade and converted all downtown-bound express bus routes to local routes to feed the rail stations. MDTA expected the higher speed and higher frequency of rail service and the sheltered transit stations to make transferring more palatable to South Dade residents. Passenger reaction to this major service change will be examined in a final phase of the demonstration.

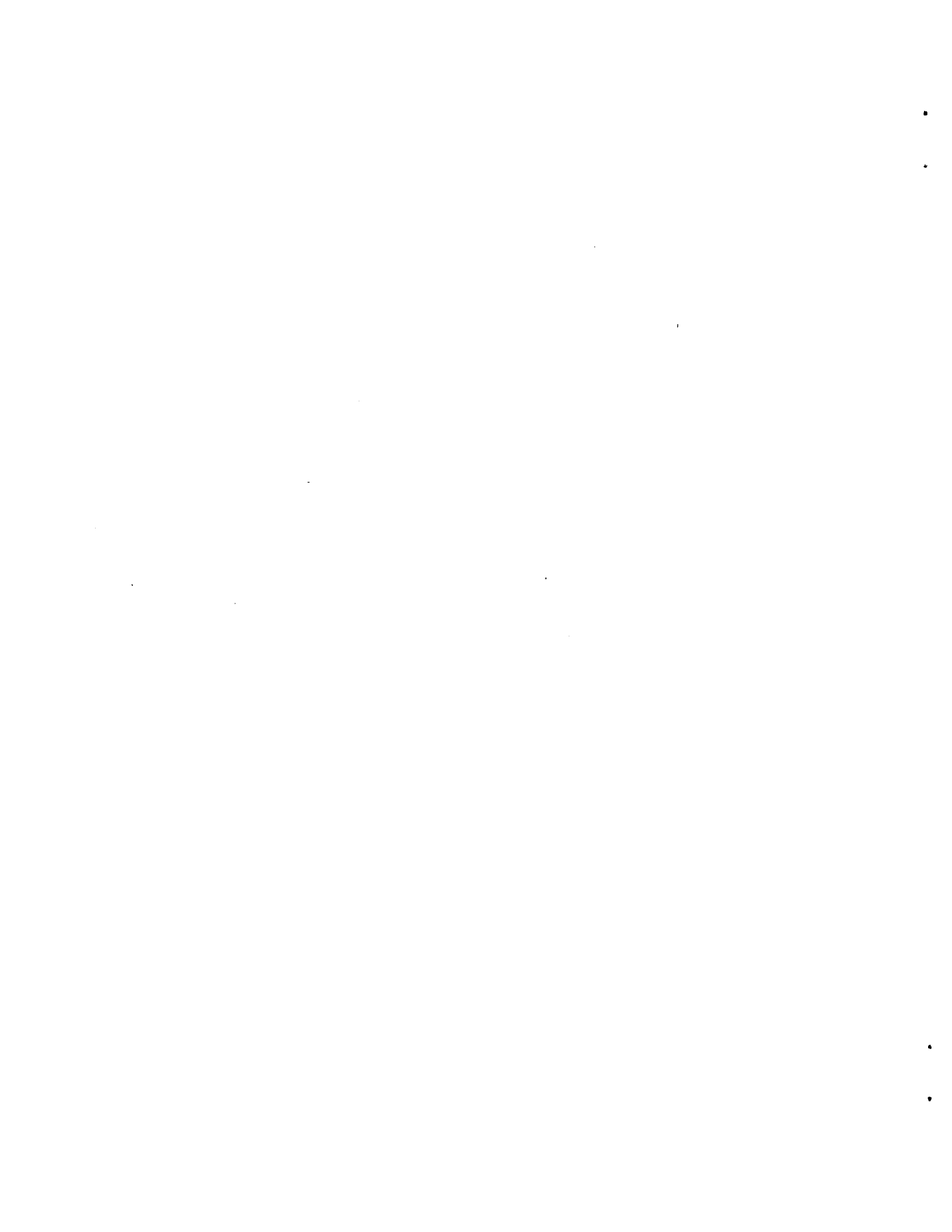
5.2 TRANSFERABILITY

While overall the project has limited transferability, due to the very specific nature of the changes ultimately implemented, there is one aspect that may be of relevance to other transit providers. In South Dade, Metro was dealing with an area that has grown rapidly in a manner probably typical of Sunbelt suburban areas. Many individual communities have sprung up with limited access to main highways. These communities include downtown workers who need commuter service to surmount congested radial highways. Yet the residential densities and the mode share are low and so it is difficult to provide service at high frequencies. At the same time the area is dotted with less affluent minority communities which have greater need for transit and produce higher per capita ridership, including work, school and shopping trips. Routes in these areas have grown very long due to a series of expansions over the years, creating a situation in which trip times to farther-away destinations are impractical. Thus, the suburban service concept was designed to:

1. Provide direct express services to workplaces in the peak;
2. Provide longer local routes for travel between adjacent communities in the peak; and,
3. Provide shorter local routes in the off-peak when travel is primary for local shopping trips.

Many transit agencies face similar problems to that in South Dade, particularly in other Sunbelt cities where growth has been rapid and development less dense. If the concept was successful, it would have provide a solution to the planning dilemmas of other transit services in sprawling American cities.

The demonstration was not successful. The transferability of the conclusions drawn from the South Dade experience is in some question. One would expect that the resistance to transferring is rather universal, and that any transit authority might have obtained similar results from a restructuring of this type. However, the reaction of the residents may have been exaggerated by the fact that a scheduling error made the transfer worse than planned and that community participation in planning was minimal despite public hearings. The suburban service concept did not envision substantial transferring activity. It is not possible to draw conclusions therefore about the potential success or failure of the original suburban service concept either in a Miami setting or elsewhere.



APPENDIX

80 SPECIAL MARKETING

Figure A-1

80 SPECIAL FLYER

We're Going Your Way

On Miami Beach ride the fast, new 80 Special

METROBUS has created an exciting new service for Miami Beach that's special for the 80's...the 80 Special. The 80 Special takes you to hotels, restaurants, beaches, banks and shopping areas along Collins Avenue and Indian Creek Drive. Special bus stop signs designating certain stops for the "80 Special" will be placed ONLY on streets where that route stops.

You can ride from Lincoln Road to Haulover Marina, making only one stop a mile, instead of 8 to 10 a mile. Your trip will be faster, cutting 7 minutes from Haulover Beach to Lincoln Road mall.

- Riding the 80 Special doesn't cost you any more to ride than the usual 50¢, with elderly and handicapped persons riding for 25¢.

- Service begins June 23, running Monday through Friday, from 9 a.m. to 3 p.m.

- The 80 Special runs every 20 minutes.
- Get on and off ONLY at stops marked "80 Special."

- Transfer directly to 18 Miami Beach routes at one or more 80 Special stops (you can catch Route O three blocks west on Lincoln Road at Meridian Avenue.)

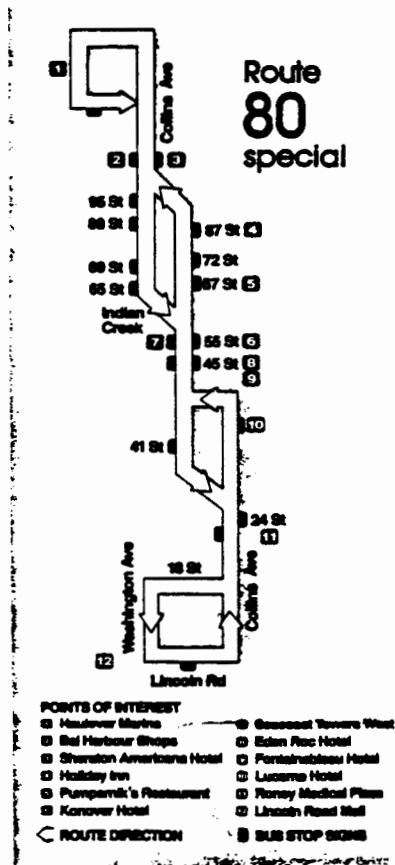
Other Miami Beach Improvements

Route D—Buses will leave all scheduled time-points 5 minutes earlier than the present schedule.

Routes S & T—Service will be increased to operate every 20 minutes on Sunday rather than every 30 minutes.

Call Us

METROBUS
 Route Information: 638-6700
 Suggestions and Comments: 638-6600
 Maps by mail: 638-6137
 (Metro Transit Agency)



METROBUS

Transportation Outlook
Clearer bus transportation ahead as routes change for more efficient service. Future outlook—good.

Route Express

Edition Free
Volume 1, Number 2
June 1980

This publication has been written and produced by employees of the Metro Transit Agency to inform the residents of Dade County generally and the bus riding public specifically about the METROBUS route system.

Special service starts on Miami Beach

Improvements to 26 other routes begin June 22

A new route for the 80's highlights service improvements and changes throughout the METROBUS network effective June 22.

The route and schedule changes and improvements have evolved after careful study of dif-

ferent area transit needs.

"By streamlining selective routes to make them operate more efficiently, we are giving METROBUS passengers a more sound transportation service," Ernest R. Gertach, Metro Transit Agency Director, said.

Improvements will be made system-wide, with the major change taking place on Miami Beach with the start of a new, limited-stop METROBUS route on Collins Avenue, called the 80 Special.

MTA will operate 94 routes

along approximately 23 million annual miles of service from Stranahan Park, Ft. Lauderdale, in the north to West Palm Drive, Florida City, in the south; and from Collins Avenue, Miami Beach, in the east to SW 187th Avenue, Homestead, in the west.

80 Special to provide faster service on Miami Beach

With the new decade in full swing, METROBUS is the better way to ride in the 80's with the introduction of a new concept in bus transportation — the Miami Beach Route 80 Special.

This new limited stop route will begin operating on Collins Avenue between Lincoln Road and Haulover Marina June 23, providing rapid, direct service for Miami Beach passengers. All other routes along Collins Avenue will continue to operate as usual except as explained elsewhere in this publication.

The 80 Special will make stops approximately one mile apart at major activity centers and transfer points on Collins Avenue and Indian Creek Drive. It is especially important to note that passengers can get on and off this bus only at designated stops. The 80 Special will run every 20 minutes, Monday through Friday, from 9 a.m. to 3 p.m.

Fare for this faster METROBUS ride will be the same as all regular and special routes: 50¢. Elderly and handicapped persons who have a valid blue/red/white Medicare card or METROBUS I.D. card will be able to ride for

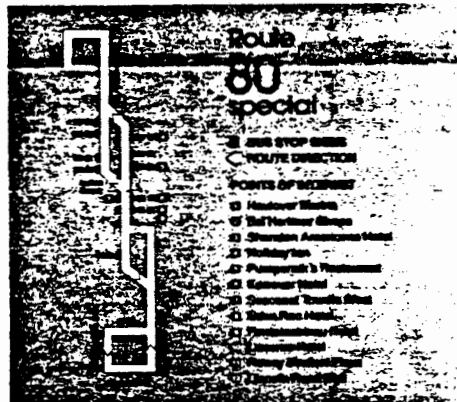
the elderly/handicapped rate of 25¢. For elderly citizens who do not have a Medicare card, which is the primary I.D. card, the special METROBUS I.D. card is available at a special MTA office at 3401 NW 36th St., Monday through Friday from 9 a.m. to 5 p.m. You must apply in person for this card and have proof of age.

Special designated signs will be placed at all METROBUS stops served by the 80 Special. A faster ride is anticipated on this route because buses will not have to stop every two to four blocks like the other 18 routes operating on Miami Beach.

Choices for the 80 Special bus stops were based on analysis of where most passengers get on and off METROBUSES and where major transfer connections are located. Passengers can transfer to all Miami Beach routes except Route O at one or more 80 Special stops.

Beach changes

Route S (195th Street and Collins Avenue to Downtown Miami via MacArthur Causeway) Route S service will be increased to operate every 20 minutes on Sunday rather than every 30 minutes to re-



have overcrowding. Route S will leave Downtown Miami (SE 1st Avenue and Flagler Street) in a northbound direction during the daytime hours Sunday at 1, 21 and 41 minutes after the hour. Traveling southbound, Route S will leave 194th Street and Collins Avenue at 8, 28 and 48 minutes after the hour.

Route T (Haulover Beach to Downtown Miami via Collins Avenue, Julia Tuttle Causeway and Biscayne Blvd.) Route T Sunday service will be increased to operate every 20 minutes leaving Downtown Miami (NE 1st Avenue and 1st Street) on the hour, 20 and 40 minutes after the hour. Southbound from Haulover Park,

Route T will depart at 9, 29 and 49 minutes after the hour.

Routes S and T combined will provide 10-minute Sunday service on Miami Beach between 41st Street and Haulover. Route D (Hollywood/Hallandale to Downtown Miami via Collins Avenue and MacArthur Causeway) Route D will be changed to leave all scheduled time-points 5 minutes earlier than the present schedule. Route D, which provides 60-minute service daily, travels from Downtown Miami to Collins Avenue and continues north to Young Circle in Hollywood via US 1 in Hallandale or A-1-A in Hollywood.

METROBUS

Figure A-2 (Continued)

NEWSLETTER ARTICLE

TRANS
PRESS
VOLUME 3, NO. 6 JUNE 1980

**We're
Going Your
Way** With 26 route
improvements starting
June 22 and the new
Route 80 Special on
Miami Beach

Service improvements and changes throughout the METROBUS route network will be implemented June 22, 1980, according to Metro Transit Agency Director Ernest R. Gerlach.

The route and schedule changes and improvements have evolved after careful study of different area transit needs.

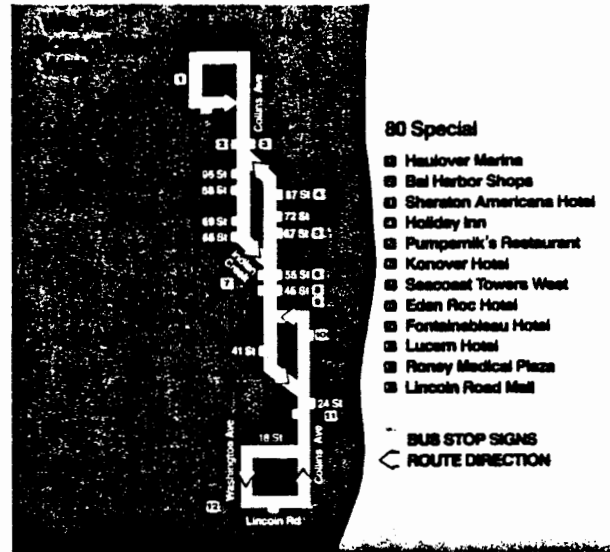
"By streamlining selective routes to make them operate more efficiently, we are giving METROBUS passengers a more well-rounded transportation service," Gerlach said.

Improvements will be made system-wide, although major changes will be made on Miami Beach with the start of a new, limited stop METROBUS route on Collins Avenue.

Service improvements are listed with a brief description of each change.

Continued on other side

**METRO
BUS //**



Continued from cover

MIAMI BEACH

The **80 Special**, a new limited stop route on Collins Avenue between Lincoln Road and Washington Avenue and the Haulover Marina will be scheduled every 20 minutes Monday through Friday from 9:00 a.m. until 3:00 p.m. Making limited stops approximately one mile apart at major activity centers and transfer points on Collins Avenue and Indian Creek Drive, the **80 Special**

80 Special

- Haulover Marina
- Bal Harbor Shops
- Sheraton Americana Hotel
- Holiday Inn
- Pumpamlik's Restaurant
- Korover Hotel
- Seacoast Towers West
- Eden Roc Hotel
- Fontainebleau Hotel
- Lucern Hotel
- Roney Medical Plaza
- Lincoln Road Mall

■ BUS STOP SIGNS
← ROUTE DIRECTION

will provide high speed, direct service for Miami Beach passengers.

Route S and Route T: Frequency of service will be increased to every 20 minutes on Sunday.

Route D: Service will be changed to leave all scheduled time points 5 minutes earlier than the present schedule.

Figure A-3

80 SPECIAL ROUTE GUIDE

