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The Los Angeles Experience -  
Fixed Route Accessible Service:

*A Much More Economical Method of Providing Service  
to the Disabled*

September, 1988

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## I. Introduction

The focus of this paper is to describe the current success of the fixed-route accessible bus system which is operated by the Southern California Rapid Transit District. This paper also emphasizes improvements of service to all disabled persons, not just those improvements to persons in wheelchairs.

It is hoped that many of issues that have been raised in the past about the failures of fixed-route accessible service will now be viewed with a different perspective after reading this paper. Equal access issues are serious matters that must be given a fair review process when determining methods for providing transportation to disabled persons. There must be "mobility choices" available to the disabled.

Los Angeles is providing an excellent testing ground in which to ascertain the values of fixed-route accessible service. With a partnership between private and public transit, a complete transportation system can be offered to the disabled community. If private providers, social service and municipal agencies, continues to provide demand-responsive service and public transit provides fixed route, there will continue to exist a "win-win" situation for all people involved in this long-struggle for equal transportation.

## II. Background

The Southern California Rapid Transit District (the District) serves a 2,280 square mile operating region with a population estimated to be just over 8 million persons. By the year 2000 the population is expected to increase to a minimum of 8.5 million persons. This also means a significant increase in growth for the elderly the and disabled community.

A Needs Assessment study conducted in 1986 for the District estimated that 18% of the population, age 12 and over, were elderly and/or disabled. This study also estimated that 14% (927,984 persons) of that same market was elderly and 6% (397,580 persons) were transit disabled.

Faced with such a highly concentrated number of persons within the service region, the District was forced to provide a comprehensive Accessible Program if it were to meet the needs of the elderly and disabled community in an effective manner. Although this paper focuses on the needs of the disabled, the elderly are also faced with many of the same serious transportation dilemmas that plague the disabled community.

The delivery of accessible service, especially for persons in wheelchairs, has been an evolutionary process that constantly changes as the transit industry becomes more attuned to the needs of the disabled. Through the directives of the District's Board of Directors, we have become a leading agency in providing accessible transportation.

The District was one of first public transit agencies to adopt a policy to purchase accessible buses for fixed-route service in 1974. But it was not until 1979 that the District actually received its first lift equipped bus. By the time the first buses arrived, a detailed transition plan was in place that met both Federal and State regulations.

Since 1975, a Citizen's Advisory Committee had been working jointly with staff to assure that basic service criteria were met in selecting accessible routes and that all operational factors were in working order by the time the first buses arrived.

Through this continued cooperative effort with our Advisory Committee and the Board of Directors, the District has expanded its services to disabled passengers and especially to persons in wheelchairs. Currently the District provides 196 bus routes of which 178 routes (91%) are accessible to passengers in wheelchairs. Average daily boardings on the bus system are estimated at 1.3 million, while boardings by passengers in wheelchair are now averaging over 360 daily boardings and boardings by all disabled persons averaged over 36,000 per day during the last fiscal year. During the PM rush hour the District operates 1919 buses of which 1271 (66%) are designated accessible to passengers in wheelchairs. Only 4 of our accessible lines have longer that than 60 minute headways and these 4 lines will be supplemented with more accessible buses by the close of 1988.

The District does not just provide service to those persons in wheelchairs, but rather it provides most of its service to persons with a variety of disabilities. Disabled boardings are now averaging over 1 million per month. Boardings by passengers in wheelchairs are estimated to account for 1% of all disabled boardings. Table 1 provides a breakdown of the categories of the types of persons with disabilities that we serve.

The statistics, as summarized in Table 2; provide a general idea of the magnitude of our system and where the District stands today in terms of providing accessible service. However these statistics in no way indicate the service effectiveness or cost-effectiveness of our program. The following sections will describe the reasons for the District's decision to continue on its path of providing only fixed-route accessible service to meet the needs of disabled in the Los Angeles area.

Table 1

Type of Disability by Actual Bus Usage

Mental/Emotional Disorders	51%
Musculo/Skeletal Impairments	9%
Visual Impairments	8%
Mental Retardation	6%
Neurological Impairments	3%
Hearing Impairments	3%
Amputation/Deformity Imp	3%
Epilepsy	2%
Cardio Vascular Impairment	2%
Respiratory Impairment	2%
Paralysis	2%
Other	9%



Table 2

Service Characteristics

Service Area: 2,280 square miles  
Total Active Fleet: 2469  
Accessible Fleet: 2265  
Average Weekday Boardings: 1,370,000  
Average Daily Disabled Boardings: 36,000  
Average Daily Wheelchair Boardings: 365  
Total Annual Bus Hours: 7,979,000  
Daily Weekday Miles Operated: 333,000  
Bus Stops: 19,951  
Operators: Full-time: 4,333  
              Part-time: 585  
Mechanics: 1807  
Annual Operating Budget: \$503,350,000  
Annual Accessible Budget: \$2,492,000  
Annual Capital Budget: \$438,162,000  
Annual Accessible Capital Budget: \$2,265,000  
                                  -305,606,000 Metro Rail  
                                  -132,556,000 Capital Improvements

### III. Fixed-Route Service - Why?

The District's early decision to buy lift equipped buses was not truly welcomed by staff. Staff was reluctant to the idea because of the large expense involved in purchasing equipment, the high maintenance costs and the low utilization by passengers in wheelchairs. Many members of management and staff felt that a demand-responsive system would be a much more effective way of delivering service to a supposedly small group of persons.

The political forces that influenced our Board of Directors and the activist members of the disabled community urged the District to continue pursuing fixed-route service. A simply worded regulation adopted in 1971 by State Legislature further reinforced the District's decision to provide fixed-route accessible service. Section 4500 of California's Civil Code required that "In awarding contracts, rapid transit equipment and structures must be built to afford handicapped persons ready access." Coupled with the federal mandated Section 504 of the 1973 Rehabilitation Act, our decision to provide fixed-route service was further strengthened.

However, probably the biggest influence to operate fixed-route accessible service came from our vocal disabled community. The disabled community, effectively curtailed our review of any other alternative demand-responsive system. The disabled worked with local politicians and our Board of Directors to make sure that the District did not rescind its decision to provide a system that would

one day be 100% accessible. Their reason for taking the time and effort to make sure fixed-route service became a reality was twofold.

First, they wanted to prove that disabled persons need to make the same daily decisions about their lifestyles as anyone else and they wanted the freedom to make those choices. Demand-responsive services does not allow disabled persons those choices. It is considered much too restrictive and does not meet their needs. Secondly, there is a large enough population of disabled persons in Los Angeles to make the fixed-route system a showplace for other cities. If the disabled community could use Los Angeles as an example to the rest of the world, they could then prove that disabled persons can be a part of mainstream America. Perhaps, other cities would then endeavor to undertake a similar approach.

The final result, of their sometimes militant stances, has been that the District has finally embarked on the road to success as our disabled ridership continues to climb and our costs continue to decline. It can now be said that perhaps the District truly made the right decision to continue fixed-route accessibility.

One other factor that must be discussed is the fact that in Los Angeles fixed-route service is not the only option to disabled persons. Fixed-route is the only option for our public transit system but demand-responsive systems and other types of paratransit services are offered throughout our service area through private providers, social service agencies and local cities. In a survey

conducted in 1985, it was found that there were over 350 transportation organizations whose primary functions were to provide demand-responsive services.

#### IV. Estimates of Population with Transit Disabilities

With the District set on providing fixed-route accessibility, staff needed to determine if there was a large enough disabled market to equate to amount of effort and expenditures that were needed to deliver fixed route service. In 1986, a complete survey of the Los Angeles County service area was conducted by consultants from the Evaluation and Training Institute (ETI) Dr. Jeffrey Young, Dr. Clare Rose and Sally Bollus prepared a research study on the "Transit Needs of the Elderly and Disabled Populations of Los Angeles County."

Their findings defined the market subsegments of elderly and disabled persons. They also determined geographical areas of concentration of such subsegments and identified their locations. And lastly, they measured the level of awareness of District services among the elderly and transit disabled.

The results of their study were as follows:

- 1) Approximately 18% of Los Angeles County households are occupied by persons who are elderly and/or disabled. There are estimated to be nearly 928,000 (14%) elderly person and 398,000 (6%) transit disabled persons in households in Los Angeles County.
- 2) The highest proportion of transit disabled persons were found in the San Gabriel Valley area which is the eastern portion of Los Angeles County.

- 3) The District has for the most part, been successful in communicating information about its special services to the target populations.
- 4) Transit disabled persons travel less frequently than elderly persons. They are also much more likely to report that lack of transportation kept them from certain activities, among them grocery and other shopping and visiting friends or relatives.
- 5) In general, elderly and disabled persons perceive no major systematic barriers impeding their use of street services. However, wheelchair users and severely disabled reported some access problems, and expressed dissatisfaction with some District service.

## V. Estimates of Potential Market

With the estimates from the ETI study the District was able to determine the size of the potential market if the District did everything possible on its parts to provide accessible service which was reliable.

With an estimated population of 397,580 transit disabled persons in Los Angeles, it is expected that at least 266,379 could use public transit on occasion. Only 16% of this population would be considered regular users. Currently the District has 36,000 riders who are using reduced fares offered to disabled persons. This would mean that there is still an opportunity to attract at least another 230,000 disabled riders. It is also estimated that at least 1% of those potential users would be persons in wheelchairs. This is based on the ETI survey conclusions and upon District usage rates.

Over the years, there has been quite a controversy over determining what type of service would best meet the demand of the disabled community. By using "TRB's" Report Number 262 Handbook "Planning Transportations Services for Handicapped Persons - User's Guide," the estimates for fixed-route transit was extremely low. So low that actual ridership has actually gone beyond potential demand (see Table 3). These low estimates may mean that the entire transit industry may significantly be under estimating the demand for fixed route transit for the disabled.

Table 3

Differences in Estimation of Demand

<u>District's E &amp; D Survey</u>		<u>Users Guide</u>	<u>User's Guide &amp; E &amp; D Survey</u>
1. Estimated Population Service area:	8,076,000	8,076,000	8,076,000
2. Number of Transit Disabled in L.A.	397,580	162,247	218,538
3. Potential Numbers of of trips:	215,767	40,006	34,310
4. Actual Avg. Daily Trips - SCRTD only	36,338	36,338	36,338
5. Number of Demand-Responsive Trips	17,050	17,050	17,050
6. Estimation of Unmet Needs (Line 3-(Line 4 & 5))	162,359	-13,382	-19,623

- (1) Users Guide - The estimates used in this column are based upon TRB Report 262 "Planning Transportation Services for Handicapped Persons - User's Guide" Worksheet A
- (2) Transit Disabled includes slight, moderate and severe Disabilities.
- (3) Trip Rate of .81 X 67% of Transit Population based upon E & D survey.
- (4) Based Upon:

Incidence Rate	=	4.1% x 19%	4.1% x 30%
Transit Disabled	=	62,912	99,335
Trip Rate	=	.88	1.4
Estimated Trips Not Made by Auto	=	9,411	30,595



Table 3 (cont'd)

Differences in Estimation of Demand

(5) Based Upon = Elderly and Disabled Survey Estimates and User's Guide.

Incidence Rate = 4.1% x 33%  
Transit Disabled = 218,538  
Trip Rate = .81

Estimated Trips not made  
by Auto = 34,310

(6) Based upon reported boardings by demand responsive survey done in 1986. Adjusted for annual increases based on District ridership trends.

Table 4 describes the characteristics of our potential ridership. When the potential ridership is compared to actual ridership characteristics (shown in Table 1) there is a very contrasting view of who actually uses bus service. There are only two simple direct correlations that could be made by looking at the percentages of usage rates compared to actual the breakdown of the population. For the hearing impaired community, there is a direct representation of the users to the actual population of hearing impaired. The visually impaired represent 3% of our actual riders in comparison to the 8% of the disabled population. However, the biggest contrast comes when reviewing Mental/Emotional disorders. This group of individuals is estimated to compose only 2% of the population of LA County over 12 years of age yet they represent over 50% of the disabled riders who use fixed route buses.

In terms of reviewing the other disabilities, it is difficult to make any assumptions because the categories vary greatly in classifying a persons particular disability.

A simple conclusion for the District, is that based upon the survey data, we could effectively improve our ridership if we address the needs of all other groups where limited mobility disabilities are involved, especially those in wheelchairs.

In terms of success, henceforth, it would have to be said that the District has exceeded their expectations in providing service to the emotionally and mentally impaired and closer investigation into this phenomena will be necessary.

Table 4

Types of Disabilities - ETI Survey

Severe Arthritis, Rheumatism	18%
Orthopedic Injury, or Impairment	13%
Disease Limiting Walking or Getting Around	12%
Blindness or Visual Impairment	8%
Deafness or Hearing Impairment	3%
Paraplegia, Quadraplegia or Hemiplegia	3%
Mental or Emotional Problems	2%
Developmental Disorders	1%
Speech Impairment	1%
All Other Conditions	39%

Severity of Disability

Slight	21%
Moderate	19%
Severe	19%

Transit - Disabled Split

Disabled Elderly	34% of the Population
Disabled Non-Elderly	16% of the Population

## VI. Determining Needs

The success of the accessible program in meeting the needs of disabled persons can be judged by using these three factors.

Accessible service must:

- 1) Provide service to a large number of riders
- 2) Its cost must be low in comparison to other aspects of transportation costs

and 3) It must be an acceptable form of transportation from a political viewpoint

When the District is assessed based upon these three qualitative factors, it would be said that we have achieved Factors 2 and 3 but Factor 1 is the biggest obstacle for the District to overcome. Factor 2, which deals with the cost of the program will be discussed in greater detail in following sections and Factor 3 as discussed in previous sections, is the most politically palatable approach for Los Angeles. However Factor 1, which deals with the number of riders the District accommodates is a subject that we must address now.

Ridership by the disabled community will not increase unless the District can overcome previously held fears about public transit. Unless the District can communicate to not only the disabled

community but to the general public, that fixed-route public transit is viable alternative for transportation then all the dollars and efforts spent over the last ten years will be for naught. The disabled community reluctance to use buses can be traced to these findings.

- 1) Elderly and disabled persons perceive no major systematic barriers impeding their use of RTD, however they are not aware of the increase in the amount of service available. This is contrary to long-held beliefs by the transit industry, that the disabled will not use public transit because of barriers and;
- 2) Elderly and Disabled expressed dissatisfaction with the reliability of equipment and with the attitudes of employees.

The ETI Study recommended, based upon the survey, actions that must be taken in order to encourage ridership. These recommendations are described in Table 5.

During the last few years the District has begun to implement many of these recommendations in addition to other service improvements to encourage new riders. Since our enactment of these recommendations there has already been a 1.5% increase in ridership from the previous years, even though ridership trends for the general public have decreased by 6%.

Table 5

Ways To Encourage Ridership on Fixed-Route Bus Services

## Recommendations

19

	Implemented	Scheduled to be Implemented	Under Consideration
I <u>Improve Service</u>			
I-1 Encourage use of kneeling feature and lift for persons with limited mobility			X
I-2 Increase number of handrails and handholds	X		
I-3 Provide and enforce reserve seating for disabled	X		
I-4 Improve bus stops and shelters by assuring priority be given to elderly & disabled riders. Insure bus shelters are accessible			X
I-5 Improve rear door mechanisms to allow elderly and disabled persons to use with greater ease		X	
I-6 Improve service in areas where there is the greatest bus use		X	
I-7 Increase the number of buses to reduce overcrowding in areas of heaviest use			X
I-8 Conduct staff workshops on the special needs of elderly and disabled persons		X	
I-9 Provide more time for scheduled routes			X

Table 5 (cont'd)

Ways To Encourage Ridership on Fixed-Route Bus Service

## Recommendations

20

	Implemented	Scheduled to be Implemented	Under Consideration
I <u>Improve Service</u> (cont'd)			
I-10 Provide a special telephone information line for elderly & disabled persons	X (implemented for passengers in wheelchairs only)		X (expansion is being considered)
I-11 Establish and guarantee minimum service standards on all RTD buses		X	
II <u>Enhance Awareness</u>			
II-1 Design Information Pamphlets specifically for disabled riders		X	
II-3 Make information readily available to disabled persons	X		
II-4 Display service Hot-Line number on inside and outside of each bus		X	
II-5 Target specific neighborhoods with information on special services			X
II-6 Create portable information centers in areas with high concentrations of disabled riders			X
II-7 Develop a system to facilitate availability of discount passes	X		
II-8 Provide discount tickets/books for disabled riders	X		

Table 5 (cont'd)

Ways To Encourage Ridership on Fixed-Route Bus Service

Recommendations

	Implemented	Scheduled to be Implemented	Under Consideration
III <u>Service Objectives</u> (cont'd)			
III-1 Maintenance should provide 95% reliable safe and operable equipment	X		
III-2 Ensure that 95% of all accessible assignments are made correctly	X		
III-3 Provide for 100% fixed-route accessible service on all bus lines		X	
II-4 Transportation should provide for 95% reliable, safe and courteous service	X		



VII. Cost Effectiveness

When standard measurements ratios are used to evaluate the cost-effectiveness of the District's fixed route service, an interesting new picture develops. Contrary to most documentation on the subject of accessibility, fixed-route service is now becoming a viable alternative.

As shown in Table 6, the overall cost of the District's fixed-route represents only .5% of our total operating budget (less capital depreciation). When "cost per trip" is compared amongst other forms of transportation this dramatic contrast can be made:

	<u>Fixed Route</u>	<u>Specialist Transit</u>	<u>Taxi Subsidy</u>
			Range from
Cost per Trip:	.22	\$6.95	\$1.00 to \$7.00

The major reason for this difference is the stabilization of fixed-route operating cost in conjunction with an increase in the number of disabled riders. Another reason is due to the fact that in the past, fixed-route passengers were considered only those in wheelchairs, whereas specialized transportation and taxi services costing was done by counting all disabled passengers. When the same populations are used in each ratio the results are quite different.

Table 6

Cost of Accessible Program

<u>Operating Cost</u>	<u>Dollars</u>
Administration - Operations	10,000
Training (4918 Operators Annually)	113,000
Promotional Materials	133,000
Schedules	31,000
Stops & Zones	45,000
Planning - Project Management	101,000
Community Relations	20,000
Customer Relations	32,000
Maintenance	2,007,000
	<hr/>
	2,492,000
<u>Capital Cost</u>	
Total Cost of Purchasing Lifts:	27,180,000 (1)
Buses with Lifts in Fleet:	2,265
Anticipated Life (12 year depreciation)	
Annual Cost per Year:	2,265,000
	<hr/>
	\$ 4,757,000

(1) Lift purchases retrofits have been completed through the use of federal grants

Table 7 further illustrates the cost effectiveness of fixed route service. The annual cost of .22 cents per passenger trip is a relatively small price to pay for the positive return that is received from the disabled community.

The incremental cost of lift service to passengers in wheelchairs is \$19.86, which in comparison to many other transit systems is quite low. The District is attempting to lower the "cost per trip" by increasing the number of riders.

Based on the estimates shown in Table 8, Column 1, it could be approximated that at least 1600 more daily wheelchair boardings could be accomplished. This means the District would probably come close to meeting full-demand. By using current dollar estimates, the incremental cost of providing lift service for over 1900 daily lift boardings would be \$3.68.

In a Transportation - Research Report, titled "Cost-Effectiveness of Transportation Services for Handicapped Persons," it estimates that the following are averages for three varieties of transportation to the disabled:

1. Average Additional Cost of Fixed-Route System is \$2,000 annually per lift equipped bus.
2. The cost per lift user can range from a few dollars to over \$50.00.

Table 7  
Cost Comparisons

	<u>Accessible Service</u>	<u>Incremental Cost of Lift Service</u>	<u>Overall Service</u>	<u>% of Accessible Service to Overall Operating Cost</u>
Annual Training Cost per Driver	\$22.98	N/A	\$373.53	6%
Annual Marketing Cost per Trip	.31	N/A	1/2 cent	-0-
Annual Maintenance Cost per Trip	.18	\$17.68	\$.28	64%
Annual Maintenance cost per Lift	\$886.00	-0-	\$49,079 (per bus)	2%
*Annual Capital cost per Lift	N/A	\$2,265,000	\$41,150,000 (per bus)	6%
Annual Operating Cost per Vehicle Hour	\$.31	\$.31	\$63.08	.5%
Annual Cost per Trip	\$.22	\$19.86	\$.85	20%
Annual Cost per Bus	-0-	\$992.00	\$203,868	.4%
Annual Total Operating Cost	\$2,492,000	\$2,246,000	\$503,350,000	.5%
Annual Trips	11,310,000	113,100	428,000,000	3%

1. The marketing cost of promotional materials could be considered less if seniors were to be included in the ratio, since many of our materials reach overlapping markets of disabled and senior persons.

Table 7 (continued)

Cost Comparisons

2. The passenger count used here represents all disabled persons since this is the total market that the Accessible Service Program serves. Demand-responsive services also use the total disabled population when evaluating service effectiveness.
3. Estimated ridership by passengers in wheelchairs.

3. Specialized transportation costs between \$8 and \$23 per vehicle hour service.
4. The cost per trip ranges \$2 to \$15.
5. The average cost of subsidizing taxi use can vary from less than \$1.00 to \$7.00 per trip.

When these general averages are compared against our fixed-route numbers, this is how they measure up:

<u>SCRTD</u>		<u>National Averages</u>
<u>Fixed-Route</u>		<u>Fixed-Route</u>
Cost per lift equipped bus	\$992/year	\$2,000/year
Cost per lift-user	\$19.86/user	Few to over 50.00/user
Cost per vehicle hour	.31/hour	<u>Specialized Transportation</u> \$8 to \$23/hour
Cost per trip (Includes all disabled)	.22	\$2 to \$15/trip (Includes all disabled)
		<u>Taxi Services</u>
Cost per trip (Includes all disabled)	.22	\$1 to \$7/trip (Includes all disabled)

When fixed-route overall cost are compared to the potential operation of a demand-responsive system that would meet the same service criteria as our fixed-route, an unaffordable amount of 130 million per year is estimated. In times, of fiscal conservatism and limited resources, once again the overall cost of 2.5 million (excluding depreciation) for fixed route is a wiser and much more cost -effective method of providing service.

## VIII. Service Effectiveness

As stated previously, the District is quite aware that it has not achieved its full potential in terms of meeting the needs of the disabled. The District must communicate to the disabled that our equipment is 95% reliable, headways are no longer than 60 minutes and at least 94% of all lines are accessible. Additionally, the District must maintain a close monitoring system to make sure that service is being provided effectively. Table 8 describes those measurements of service effectiveness that are used. The District maintains a variety of computerized monitoring reports that detail such things as vehicle maintenance, customer complaints and operator performance. Daily service goals are monitored to assure that our daily objectives for putting accessible service on the street are being met.

The results of our efforts to communicate our improvements are being seen daily. Disabled ridership during the first six months of 1988 increased by 8% over the previous six months. As service improves, more and more disabled riders are trying our service.

Public schools and colleges serve as the District's best source for potential riders. Classrooms are teaching disabled students to use fixed route public transit in order to be independent.

Mainstreaming into the American lifestyle is the goal of most disabled persons. Part of that dream is to be independent. A measure of our effectiveness, as a transportation agency, is determining how we are meeting the need for people to work daily,



Table 8

Measurements of Service Effectiveness

<u>Measurement</u>		<u>District Performance</u>
Reliability of Service	-	95% reliable lift service.
	-	Headways are no longer than 60 minutes.
Comfort	-	2 securement areas in buses. 3 types of securement straps that secure 98% of all wheelchairs (three-wheeled included).
	-	Front seating locations for disabled persons. PA system on bus to announce all stops.
Extent of Service	-	94% of all bus lines are accessible with lifts.
	-	100% of all lines are equipped to handle all other disabilities.
	-	Accessible service is distributed throughout the full geographic area of Los Angeles.
Characteristics of Operators	-	Operators are sent through an extensive sensitivity training program. Monitoring of complaints will be evaluated in a "Before and After Study."
Safety	-	Detail safety monitoring reports are done by the Risk Management Department to determine if any hazardous situations are occurring.

Table 8 (continued)

Measurements of Service Effectiveness

- |                         |   |   |
|-------------------------|---|---|
| Responsiveness to Users | - | A citizens advisory committee keeps the District informed of current issues and helps to develop remedies for difficult situations. |
|                         | - | The toll free Hot-line for problems helps users to directly remedy bad situations.  |

visit friends and relatives and to enjoy recreational activities. These are the trips that make fixed-route service valuable and unique, in most cases demand responsive does not meet those needs.

## X. Conclusion

If the measurement of our program's success is based upon how closely and to what degree we achieve our intended objectives, it would have to be said that the District has ventured quite close. The three objectives of serving a large number of riders, maintaining low cost service and operating a politically acceptable form of service is only a few years away. This paper is written in hopes that many commonly held beliefs about fixed route service will now be questioned. Perhaps some cities will actually stop and analyze if there is a possibility that fixed-route might be an alternative that should be reconsidered. Table 9 is a simple comparison of some of the pros and cons of fixed-route versus demand responsive services.

Los Angeles continues to strive for improvements to its service and hopes that as part of their efforts a better coordinated system between demand-responsive providers and the District, will begin to take hold. By allowing private providers, social service agencies and municipal operators to provide demand responsive services and taxi-subsidies, it has for the most part, effectively met the needs of those persons who cannot use public transit. The District, however, has been able to provide through fixed-route buses, transportation that meets the needs that other services will never meet. Fixed route accessible service does not provide duplicative service but rather offers new opportunities for people of our community.

Table 9

Fixed-Route Service vs. Demand Responsive Service

<u>Fixed-Route</u>		<u>Demand Responsive</u>	
<u>Providers</u>	<u>Users</u>	<u>Providers</u>	<u>Users</u>
<ol style="list-style-type: none"> <li>1. Overall less costly</li> <li>2. Easier to provide</li> <li>3. More palatable politically</li> </ol>	<ol style="list-style-type: none"> <li>1. More frequent</li> <li>2. Larger service area</li> <li>3. Less costly for user</li> <li>4. Provides for more flexibility - (optional trips)</li> </ol>	<ol style="list-style-type: none"> <li>1. Provides service to more people</li> </ol>	<ol style="list-style-type: none"> <li>1. Easier to gain access</li> <li>2. More reliable</li> </ol>
<ol style="list-style-type: none"> <li>1. Hard to keep to schedules</li> </ol>	<ol style="list-style-type: none"> <li>1. Rude drivers</li> <li>2. Lifts unreliable</li> <li>3. Safety fears</li> <li>4. Not easily accessible</li> </ol>	<ol style="list-style-type: none"> <li>1. Overall higher cost</li> </ol>	<ol style="list-style-type: none"> <li>1. Advanced notice required</li> <li>2. Service area restrictions</li> <li>3. Limited capacity</li> <li>4. Higher costs to users</li> <li>5. Trip priorities</li> </ol>
<p>TOTALS - 3 Favorable 1 Unfavorable</p>	<p>4 Favorable 4 Unfavorable</p>	<p>1 Favorable 1 Unfavorable</p>	<p>2 Favorable 5 Unfavorable</p>

Overall Service Totals:

Fixed-Route

7 Favorable Factors  
5 Unfavorable Factors

Demand Responsive

3 Favorable Factors  
6 Unfavorable Factors

## Acknowledgements:

I wish to acknowledge the suggestions made by members of the Los Angeles senior and disabled community, especially Sue Ridemour, John Day and the Horton's. They have allowed me the opportunity to expand my visions for the Accessible Service Program. A special thanks to my employer, the Southern California Rapid Transit District who has provided me with the support to make our program work. This includes all departments, but especially the Maintenance department under the direction of Mr. Rich Davis and Mr. Robert Korach, Assistant General Manager of Operations.

Finally, I wish to express a special thanks to Carolyn Frazier, Jerry Crumpley and David McCullough whose friendship and assistance has also made the Accessible Program Work! Last, but not least to my family who have inspired me to keep working on this worthwhile project. The opinions and conclusions expressed or implied in this paper are solely the authors and do not necessarily reflect those of the Southern California Rapid Transit District.