

Evaluation of a Demonstration Small Bus Program for the Elderly and Handicapped

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The availability of transportation services to all citizens should be considered essential to maintenance of the quality of life. The best efforts of public and private agencies notwithstanding, it is clear that there are numerous individuals and groups who do not enjoy the same levels of transportation service. The state of Michigan undertook a demonstration program, Local Efforts in Transportation Services, that provides essential transportation services to the elderly and handicapped in specific neighborhoods in the city of Detroit. A discussion of the factors that were considered in a service evaluation performed from quantitative, qualitative, and institutional issue viewpoints is included. Comparisons are made among small bus services provided by public transportation agencies and directed to the elderly and handicapped. These comparisons provide a context within which an assessment of similar types of small bus services to this sector of society can be made.

The existence of a perceived lack of adequate public transportation services to meet the essential transportation needs of the elderly and handicapped in the Detroit metropolitan area resulted in the Michigan Department of Transportation (MDOT), through its Bureau of Urban Public Transportation (UPTRAN), undertaking a unique demonstration project entitled Local Efforts in Transportation Service (LETS GO) during Fiscal Year 1986. This project was designed to effectively and efficiently satisfy the unmet specialized public transportation needs of senior and handicapped citizens in various communities in the city of Detroit. The demonstration program provided state assistance in the form of planning and technical services; the provision of vehicles; and funding for vehicle operating and maintenance, start-up, and coordination costs. The objective of the program was to demonstrate the ability of local communities, through community social service centers, to work with various public agencies to provide specialized transportation services to satisfy the unique transportation needs of these citizens. To assess the degree to which this objective was satisfied, an analysis of the feasibility and viability of these services was undertaken and a determination made of the capability and advisability of the state to extend such services to other communities when such service was warranted. The opportunity to evaluate a functional transit system of this type was appealing in that a similar type of service was studied conceptually by the city of Lansing several years ago (1).

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Presented in this paper are the results of a comprehensive review of the first two projects funded under this program (2). This review was intended to enable the state to examine possibilities for future expansion of this program to most effectively ensure the maximum benefits for the funds expended. Of general interest to the transportation community at large because many areas are faced with proposals for small bus systems to meet similar needs, this review presented a scope within which such systems could be assessed. The review included

- Documentation of the nature and level of the transportation services provided;
- Examination of the unique transportation needs met by this program;
- Evaluation of the process and procedures under which the program has been planned and operated;
- Assessment of the acceptance of the program by users, community providers, and public agencies;
- Examination of other options for the provision of such specialized transportation services; and
- Development of recommended changes that should occur in the program to more effectively meet the transportation needs of the elderly and handicapped in the most cost-efficient manner.

EXISTING PUBLIC TRANSIT SMALL BUS OPERATIONS

Both the Southeastern Michigan Transportation Authority (SEMTA) and the Detroit Department of Transportation (DDOT) operate extensive networks of line-haul bus transit services in the Detroit metropolitan area. These services are operated on densely populated routes on fixed schedules with frequency based on route demand. These line-haul services are less than optimal, at best, for senior and handicapped citizens who often require more personal and flexible services to specialized destinations. Normally, these types of trips are best suited to small bus systems that operate in a demand-responsive mode.

Conventional small bus operations designed to meet the needs of the elderly and handicapped, as well as others, in the tri-county regions of Wayne, Oakland, and Macomb counties in the Detroit metropolitan area are provided by SEMTA. DDOT does not operate a small bus service although it has a commitment to provide reduced-fare service to the elderly on its line-

haul system. The SEMTA operations are generally based outside the city of Detroit and consist of four types of operations: bus service directly operated by SEMTA (the SEMTA Connector), bus service operated under contract to SEMTA by other public carriers (the SEMTA Community Connector), cab service subsidized under a municipal credit funding arrangement, and van service subsidized by SEMTA (3). Although both the SEMTA Connector Service (CS) and the SEMTA Community Connector (CC) service provide effective and efficient conventional demand-responsive small bus transportation to a large number of communities within the tri-county area, no such service presently exists within the boundaries of the city of Detroit. Furthermore, the nature of the service provided by SEMTA in its small bus program does not allow for anything but curb-to-curb service, which may not be the most desirable service for senior and handicapped citizens who often require assistance in getting to and from their residences or trip destinations. Therefore, LETS GO was seen as a way to fill a void in essential transportation service within the city limits of Detroit by establishing demonstration programs for community-based and community-operated assisted-transportation service for senior and handicapped citizens.

LOCAL EFFORTS IN TRANSPORTATION SERVICE

Throughout the urban areas in Michigan, a wide variety of community and social service agencies provide essential support services to senior and handicapped citizens. Available specialized transportation services are critical components affecting the ability of these agencies to provide these support services. LETS GO was funded by the legislature of the state of Michigan for the purpose of funding one or more demonstration projects that might better meet the mobility needs of senior and handicapped citizens and was administered by the Bus Transit Division of UPTRAN.

Capital assistance was provided for vehicles and other support equipment for the operation of the transportation service. The support equipment included such eligible items as wheelchair lifts, radios, vehicle rehabilitation, and heavy vehicle maintenance requirements. Operating assistance provided for includes such items as administration, operator and dispatcher wages, fringe benefits, regular vehicle maintenance, gas and oil, insurance, and rent. A significant level of local support for operating expenses, 20 to 30 percent, was required. Such local support could be a combination of farebox revenues, provider funds, or donations. These could also be in-kind contributions such as volunteer time and equivalent wages.

Detroit Assisted Transportation Coalition

The Detroit Assisted Transportation Coalition (DATC) was funded through the Senior Citizens Department of the city of Detroit for the period from February 3, 1986, through February 3, 1987, at a level of state funding of \$203,917. Of this amount, \$14,400 was for capital equipment and \$189,517 was for operating funds. Seven rehabilitated buses were loaned to DATC by UPTRAN.

DATC consists of small bus transportation services for the elderly and handicapped provided through five community-

based social service centers: the Brightmoor Community Center, Latino Outreach and Community Service Center, Community Resource and Assistance Center (CRAC), St. Rose Senior Center, and Delray United Action Council. The St. Rose service is provided by CRAC.

Project coordination between the community-based social service centers is provided by United Community Services of Metropolitan Detroit (UCS). The Senior Citizens Department of the city of Detroit (SCD) administers the grant funds to the individual social service centers through the coordinator at UCS who works directly with these community-based providers. This coordinator oversees the services offered by these agencies, but all scheduling and dispatching of bus services are done by the providers on a demand-responsive, advance-reservation basis within each of their primary service areas.

The function of the coordinator is to meet with the individual social service centers to resolve operating and maintenance problems, receive monthly operating and financial reports from the individual agencies and transmit them to the UCS, SCD, and UPTRAN, and operate a radio dispatch system on behalf of the individual centers to communicate with buses that are en route during operating periods.

The Brightmoor Community Center is a nonprofit community service provider whose social service activities are funded by contributions made by the United Foundation. The Detroit Area Agency on Aging currently provides funds for a food and friendship program for senior adults, home support services, and a senior center. UCS employment and training funds supplement the senior center staffing. The transportation services offered to seniors provide for transportation to and from the center for the various programs conducted at the center, and for occasionally scheduled short group shopping trips and outings for its clients.

Latino Outreach is primarily a preventive mental health facility serving, in effect, the Hispanic community in southwestern Detroit. There is a variety of services offered at the center itself ranging from a developmental disabilities program to senior and youth programs. The transportation service supports not only center programs but also activity trips and medical-related trips.

CRAC is an association of 20 east-side Detroit neighborhood associations that administers the Senior Citizen Area Transport (SCAT) program providing free door-to-door, assisted transportation to seniors 55 years of age or older. CRAC also provides transport service to the St. Rose Senior Center. One of the largest transportation demands for CRAC is for medical trips. These trips are made for scheduled visits to hospitals to receive treatment for a variety of reasons. For these types of trips, the client is picked up and dropped off at the medical destination, typically a Detroit-area hospital. When treatment is completed, the client telephones and indicates the need for the return trip. For either leg of the trip there maybe some crossover among DATC members; that is, the bus assigned to pick up the passenger may be any of the buses operated by the coalition depending upon operating efficiency and scheduling convenience for the passenger. It should be noted that this procedure is generally used by any of the LETS GO providers dealing with medical trips.

The Delray United Action Council operates out of its senior citizen center on the southwest side of the city of Detroit. Delray operates a daily food and friendship program for seniors and a daily crafts and exercise program. Programming at the center includes a weekly film series, weekly bowling trips, monthly bookmobile, monthly group shopping trips, and a guest speaker series.

Council of Action United for Service Efforts

The Council of Action United for Service Efforts (CAUSE) had \$185,246 of state funds for a service period from August 1986 through September 1987. Of this revised funding level, \$26,270 was for capital equipment and \$158,976 was for operating expenses. Four rehabilitated lift-equipped small buses were provided for this service. CAUSE is a nonprofit, multipurpose senior citizen community organization operating from its own facility located relatively near the center of Detroit. Funding for the CAUSE transportation service is provided by UPTRAN to SCD of the city of Detroit. As costs are incurred by CAUSE, monthly invoices are submitted to the SCD. SCD pays these invoices directly to CAUSE and recovers these funds from UPTRAN.

The transportation service emphasis is on senior citizen clients but handicappers are also accommodated. The service provides for trips to medical facilities, shopping centers, senior citizen centers and service agencies, food and friendship sites, markets, and banks. It also provides for monthly trips for special events and community meetings of interest to seniors.

EVALUATION OF LETS GO PROGRAM

Any review of a program such as LETS GO should include the following dimensions:

- A quantitative evaluation of how much service is being provided and at what cost;
- A qualitative review of the need for, and quality of, the service being delivered; and
- An assessment of the institutional issues, that is, the administrative and organizational delivery system, which includes, for example, the relationship between UPTRAN and the community organizations.

It is only after a reasonably comprehensive evaluation from all of these perspectives that appropriate assessment of service can be made.

Quantitative Assessment

The quantitative review of the program consisted of collecting and analyzing operational data from UPTRAN and the two providers and, in the case of DATC, its member agencies. The data were arranged in traditional ways to arrive at some indication of, for example, the average trip length. The comparative trip purpose data are presented in Table 1 for the DATC providers and CAUSE, and the statistics related to comparative measures of transportation efficiency for the DATC providers, CAUSE, and SEMTA are provided in Table 2.

Services

Latino Outreach The data presented in Table 1 show that the predominant trip purpose for Latino Outreach is for recreation, which includes several activities at the center or elsewhere. Together, recreation and miscellaneous purposes account for approximately 80 percent of the trips. The system appears to have a reasonably good record of availability as shown by the data in Table 2. The average trip length is on the order of 2 mi, which further indicates that many trips were within the service area. For purposes of comparison, the average trip lengths for CRAC and CAUSE, where medical trips predominated, are approximately 50 to 100 percent longer because most of the medical destinations are outside the neighborhoods where the clients reside. The trips per vehicle-hour indicate that approximately six people are riding in any given hour of actual vehicle operation although this counts "dead-heading" when, for example, the vehicle is outbound from the center to the clients to pick them up for center activities. The fact that trips per system-hour are lower than trips per vehicle-hour indicates that there is some time when the vehicle is available but not used, approximately 16 percent of the time. This is also apparent from comparing total system and total vehicle hours.

As indicated earlier, the single biggest destination for this service was found to be the center itself with approximately 38 percent center-oriented. Shopping accounted for just over 20

TABLE 1 COMPARATIVE TRIP PURPOSE DATA FOR DATC PROVIDERS AND CAUSE

Provider	No. of Trips							Total	
	Food and Friendship	Medical	Recreation	Nutrition	Shopping	Special Events	Miscellaneous	Trips	Miles
Latino Outreach		1,888	5,306	376			1,404	8,974	18,072
Avg monthly trips		172	482	34			128	816	1,642
Delray		702			692	3,398		4,792	5,434
Avg monthly trips		70			70	340		480	543
Brightmoor	5,848				1,152	1,070		8,070	15,243
Avg monthly trips	532				104	98		734	1,385
CRAC		15,006	3,082	6,038				24,126	72,558
Avg monthly trips		1,364	280	548				2,192	6,596
CAUSE		4,457	563	2,095	680		382	8,177	36,378
Avg monthly trips		637	80	299	97		55	1,168	5,196

NOTE: Data cover the period from May 1986 through March 1987.

TABLE 2 COMPARISON OF DATC PROVIDERS, CAUSE, AND SEMTA

Provider	Total		System-Hours	Vehicle-Hours	Trips per System-Hour	Trips per Vehicle-Hour	Trip Length (mi)	Trips per Vehicle-Mile
	Trips	Miles						
Latino Outreach	8,974	18,072	1,736	1,453	5.1	6.1	2.2	0.5
Delray	4,792	5,434	1,348	446	3.6	16.4	1.2	0.9
Brightmoor	8,070	15,243	1,832	1,419	4.4	5.7	1.9	0.5
CRAC and SCAT	24,126	72,558	1,832	5,265	13.2	4.7	3.0	0.3
DATC	45,962	111,307	6,748	8,583	6.8	5.4	2.4	0.4
CAUSE	8,177	36,378	1,053	3,224	7.8	2.5	4.4	0.2
SEMTA CS	612,255	2,621,111		120,725		5.1	4.3	0.2
SEMTA CC	260,404	525,257		40,430		6.4	2.0	0.5

NOTE: Data cover the period from May 1986 through March 1987.

percent of the trips, with medical accounting for approximately another 25 percent. According to the trip purpose breakdown provided, medical trips accounted for 21 percent of the total. The service is basically a 24-hr advance reservation service. Radio contact is used to coordinate return trips when necessary. Early in the program there were some vehicle problems but another vehicle was substituted. It should be noted that this sort of problem is potentially troublesome for center or noncenter-oriented services—the need for back-up vehicle capability is critical for all providers. With the arrival of a second vehicle, a new mini-van, one vehicle was dedicated to medical trips and one to all other purposes. Although Latino Outreach had its own vehicle before it participated in LETS GO, the feeling was that most of the trips currently being serviced were made either by taxi or with a friend, or, alternatively, not at all. For special event outings, vehicles had been rented. The SEMTA Connector Service was seen as simply not being adequate. The only person directly funded by LETS GO funds is the driver. Latino Outreach must provide another driver, a supervisor, one person to take calls and schedule trips, and other administrative time.

Delray The Delray service is significantly different from that provided by Latino Outreach. While many trips provided by both are center-oriented, Delray has a much higher proportion of special events trips, many of which are either in or in close proximity to the neighborhood, although this changed during the course of the analysis period. It should be noted that Delray reported no service in May 1986 so the analysis period is less than the others. Also, as indicated earlier, the Delray service area is considerably smaller than the others, which would, for example, affect the typical trip length to a center activity.

Even considering that adjustment, Delray provided significantly fewer but considerably shorter trips than did Latino Outreach. As shown in Table 1, special events accounted for the greatest number of trips. Medical trips accounted for about 14 percent, which is somewhat less than Latino Outreach's 21 percent.

Delray's system-hours were significantly lower than Latino Outreach's, an average of 135 hr/month versus 158, and vehicle-hours were even lower, 45 versus 132, for an average service use of 33 percent for Delray versus 83 percent for Latino Outreach.

Delray provided on the average much shorter trips, somewhat over 1 mi to Latino Outreach's 2 mi. The monthly and overall trips per vehicle-hour averages support the idea that

many of the trips involved taking groups to special events, especially during the earlier months of operation of the service. In the last 5 months of operation during the analysis period, there was a significant change in the service with the number of trips somewhat reduced and the number of trips per vehicle-hour decreasing as well. The above notwithstanding, Delray appears to have provided reasonably efficient service when it was available.

Brightmoor Brightmoor's transportation service has largely been a patchwork program in the past. At various times there have been a vehicle funded for day-care transportation, a van under another social service program, and a driver from yet another program. Transportation is, nonetheless, a vital part of the service that the center offers. The client group—mainly the elderly of the area numbering from 4,000 to 6,000—has no convenient transportation other than that provided by the center to access the center's programs and other special events such as shopping trips. The prevailing view is that SEMTA cannot provide the appropriate level of service to support the center, but could provide supplementary service for the area. Brightmoor's service was presumed to be the most center-oriented as no trip destination data were available, although the average trip length is comparable to that of Latino Outreach. The trips-per-vehicle-hour data indicate that the passenger loading is somewhat lower than for the other centers, which seems reasonable for a center orientation.

Indeed, the food and friendship purpose is a center-oriented trip, which accounts for almost 75 percent of the trips provided, the rest being shopping and special event trips. The shopping trips account for 14 percent of the total, which is the same as Delray and somewhat less than the 20 to 25 percent indicated in the breakdown of the sample of Latino Outreach trips. No medical trips were reported.

Although the reported vehicle-to-system-hours use is between the other two services, Brightmoor's 78 percent is significantly higher than Delray's 33 percent.

CRAC The CRAC service is considerably more well-established and had the benefit of more than one vehicle in operation at all times as may be noted in Table 2, which shows that the average vehicle-to-system-hours ratio is approximately 2.8 versus less than 1 for each of the other systems. Similarly, the trips per system-hour are also quite high since the system has multiple vehicles. CRAC has been in operation for some

time and the organization clearly had the benefit of this experience in running its program. It should also be noted that CRAC's service area is quite large, which in itself would account for longer trips.

The sample of reported trip purposes is dominated, by a significant margin, by medical trips as can be seen in Table 1. Approximately 62 percent of CRAC's trips are medical versus the next highest, Latino Outreach at 21 percent. The smallest share for CRAC is represented by recreational trips at 12 percent, a significantly different orientation than the other three services in the DATC.

As might be expected given the orientation to medical trips, CRAC has the highest average trip length and lowest trips-per-vehicle-mile figures.

CAUSE The service provided by CAUSE is separate from the DATC. However, the service provided appears to be most similar to that of CRAC since the dominant trip purpose is medical, these representing 55 percent of the trips. Likewise, the average trip length of 4.5 mi is the longest of any of the providers and very consistent month to month; the standard deviation was found to be quite low relative to the others.

Again, it is seen that the high proportion of medical trips, which are typically destined out of the neighborhood, lead to low values of trips per vehicle-mile. Also, like CRAC, CAUSE had multiple vehicles available.

Service Comparison

CAUSE can be compared directly with the other providers individually and with DATC in general with the data in Table 2. It should be kept in mind that CAUSE operated for only the last 7 months of the common analysis period although the last four statistics tabulated are ratio forms that implicitly account for some differences in total operations.

A complete economic evaluation is quite difficult since it is virtually impossible to arrive at the real costs of providing the services by any of the groups. Furthermore, the services are different, and the number of vehicles available is different in terms of both reliability and the actual number of vehicles. Therefore, perhaps a better indicator of service efficiency is the trips-per-vehicle-mile statistic. This number essentially normalizes for vehicle availability and provides a limited base for comparing different services. A brief comparison of the DATC providers, CAUSE, and the SEMTA connector services on the basis of the summary statistics is given in Table 2. The fact that the Delray service was available for a shorter time is important, therefore, when the totals are concerned but is implicitly considered in the ratios. This point notwithstanding, the results are somewhat surprising.

In terms of efficiency, measured by the largest number of trips per vehicle-mile, Delray is providing the best service. This is a result of the larger number of trips that are provided to special events when the vehicle is most likely to be filled and there is very little dead-heading. CRAC and CAUSE are least efficient given that they are carrying a fairly large number of people to diverse destinations such as hospitals, clinics, and so forth. This sort of trip presumably requires a lot of dead-heading. This efficiency measure should be interpreted with caution. For example, an uncritical acceptance of it implies that

recreational trips, for example, a special event, are as important as medical trips. The difference in the relative sizes of the service areas of the providers will also affect trip length. Delray's trip length is small, which would typically result in shorter trips, while CRAC's is large, resulting in longer trips.

The trips-per-vehicle-hour value is also normalized for the number of vehicles and the time they are on the road. Again, Delray comes out most favorably, presumably for the same reasons. Brightmoor and Latino Outreach offer services that are most similar to one another and their operating statistics are similar as well.

Also shown in Table 2 are summary statistics for the SEMTA-sponsored Community Connectors (SEMTA CC) and general Connector Services (SEMTA CS). While the time periods for the SEMTA services are significantly different, which indicates that the totals should not be compared, the efficiency statistics are essentially normalized. In each instance the SEMTA figures fall within the overall range established by CAUSE and the DATC providers; that is, the services are largely comparable. It would appear that SEMTA is meeting, or attempting to meet, a very similar need in the communities in which it operates.

Cost Comparison

A comprehensive cost analysis is very difficult to do. The reasons for this include the fact that the capital costs are not known; in addition, neither the complete extent of provider contributions to the program nor the associated assignable costs are known. However, based on costs reported to UPTAN some cost-effectiveness measures have been developed. These are shown in Table 3 for DATC and Table 4 for CAUSE. No comparable figures were obtained from SEMTA. The data reported contain neither complete start-up costs nor any considerations as noted above. Therefore the cost-related statistics reported are all on the conservative side; that is, the actual costs would be significantly higher.

The overall costs per vehicle-hour of operation are approximately \$22.50 for CAUSE and \$20.00 for DATC. Costs per trip are higher for CAUSE, \$8.71, than for DATC, \$4.77, which is probably because of the difference in the type of trip being provided. A breakdown of DATC by provider would show a differential with CRAC probably being the highest and comparable to CAUSE. The cost per mile of operation is just under \$2.00 for both DATC and CAUSE, which indicates that the costs to have the vehicles on the street are about the same. This statistic tends to be independent of trip purpose and length because most of the travel, regardless of trip purpose and length, is on city streets. Neither system covers an appreciable amount of the costs associated with the service.

From the foregoing data, it seems reasonably clear that fares will never cover costs and that the service must have large-scale subsidies from somewhere. Currently, the best opportunity appears to be a formal linkage with health-care providers where significant costs can be recovered. It is possible, given the above cost figures, that some cross-subsidization within the providers' services could occur if the health-care-related trips could be paid for by the health agency. That is, a "profit" could be realized from medical trips which would then cover at least some of the costs of providing other kinds of trips within DATC and CAUSE service areas.

TABLE 3 COST SUMMARY FOR DATC

Month	No. of Trips	Total Costs (\$)	No. of Fares	Avg. Fare (\$)	Vehicle-Hours	Total Miles	No. of Trips per Vehicle-Hour	Cost per Vehicle-Hour (\$)	Cost per Trip (\$)	Cost per Mile (\$)	Fare to Cost Ratio	Avg. Trip Length (mi)
1986												
Jan.	862	3,742	90	0.10	360	2,797	2.4	10.39	4.34	1.34	0.02	3.2
Feb.	1,313	4,841	118	0.09	480	3,799	2.7	10.09	3.69	1.27	0.02	2.9
March	2,682	6,225	1,010	0.38	571	5,757	4.7	10.90	2.32	1.08	0.16	2.2
April	2,946	22,442	1,146	0.39	705	5,540	4.2	31.83	7.62	4.05	0.05	1.9
May	2,798	15,312	1,002	0.36	767	7,463	3.6	19.96	5.47	2.05	0.06	2.7
June	2,581	14,254	264	0.10	750	7,172	3.4	19.00	5.52	1.99	0.02	2.8
July	3,655	18,208	1,578	0.43	823	9,280	4.4	22.12	4.98	1.96	0.09	2.5
Aug.	3,206	11,875	1,255	0.39	783	9,659	4.1	15.17	3.70	1.23	0.11	3.0
Sept.	3,802	18,677	182	0.05	837	10,912	4.5	22.31	4.91	1.71	0.01	2.9
Oct.	4,569	11,891	879	0.19	879	4,269	5.2	13.53	2.60	2.79	0.07	0.9
Nov.	3,796	17,379	128	0.03	765	9,633	5.0	22.72	4.58	1.80	0.01	2.5
Dec.	3,926	29,136	2,035	0.52	773	8,715	5.1	37.69	7.42	3.34	0.07	2.2
1987												
Jan.	3,854	12,623	980	0.25	807	13,011	4.8	15.64	3.28	0.97	0.08	3.4
Total	39,128	186,605	10,667	0.27	9,300	98,007	4.2	20.06	4.77	1.90	0.06	2.5

TABLE 4 COST SUMMARY FOR CAUSE

Month	No. of Trips	Total Costs (\$)	No. of Fares	Avg. Fare (\$)	Vehicle-Hours	Total Miles	No. of Trips per Vehicle-Hour	Cost per Vehicle-Hour (\$)	Cost per Trip (\$)	Cost per Mile (\$)	Fare to Cost Ratio	Avg. Trip Length (mi)
1986												
Aug.	122	5,427	68	0.56	82	822	1.5	66.18	44.48	6.60	0.01	6.7
Sept.	901	7,002	280	0.31	411	4,067	2.2	17.04	7.77	1.72	0.04	4.5
Oct.	1,220	11,194	425	0.35	520	5,556	2.3	21.53	9.17	2.01	0.04	4.6
Nov.	1,032	11,058	448	0.43	448	4,981	2.3	24.68	10.72	2.22	0.04	4.8
Dec.	1,014	9,806	286	0.28	435	4,354	2.3	22.54	9.67	2.25	0.03	4.3
1987												
Jan.	1,221	9,668	488	0.40	486	5,183	2.5	19.89	7.92	1.87	0.05	4.2
Feb.	1,395	9,314	508	0.36	474	6,200	2.9	19.65	6.68	1.50	0.05	4.4
March	1,397	9,356	478	0.34	449	6,037	3.1	20.84	6.70	1.55	0.05	4.3
April	1,477	12,334	479	0.32	475	6,347	3.1	25.97	8.35	1.94	0.04	4.3
Total	9,779	85,159	3,460	0.35	3,780	43,547	2.6	22.53	8.71	1.96	0.04	4.4

Some cost figures from other programs were recently published (4) showing that in Austin, Texas, similar public services cost about \$10.80 per trip versus \$5.00 by taxi. In San Antonio, Texas, the public-provided service costs \$9.75 per trip versus \$4.10 for a private provider of handicapped services. In Ann Arbor, Michigan, a special publicly and privately sponsored lift-equipped bus provided trips at about \$10.90 per trip versus about \$4.75 for taxi. It should be noted that the Ann Arbor costs apparently did not include any consideration of capital investment. It is not known whether the Texas figures included them or not. The Ann Arbor costs can be compared with an estimated \$50 per trip for one passenger per trip service (\$25 for two persons per trip) provided by the public transit agency, Ann Arbor Transit Authority (AATA). Again, it is not known whether the AATA included consideration of capital costs.

There was also a review of SCAT operations (5) wherein it was stated that SCAT is self-sufficient and an example of privatization of service, although virtually all of the reported funding was from public sources including MDOT, SEMTA, and the Michigan Department of Labor, among others. However, very little cost information was reported. It is nonetheless clear that CRAC (and SCAT) is a principal provider of

services in the area and has taken substantive steps to obtain funding from a variety of sources.

Although direct comparison of the costs in Tables 3 and 4 with those reported in the foregoing paragraphs is problematic, it would appear that the costs being incurred by DATC and CAUSE are similar to those reported elsewhere. Whereas the capital costs of vehicles appear to be consistently overlooked by many providers, the DATC and CAUSE data are presumably artificially low compared to some of the others because of, for example, some driver salaries not being covered by the providers themselves and many administrative costs not being reported. Nonetheless, the conclusion must be that at the current time the costs being reported are similar to or lower than comparable services elsewhere.

Qualitative Assessment

The quantitative statistics concerning DATC and CAUSE services represent only one view of what is needed by and offered to the neighborhoods. The services are unique in that they are the only option for many of the clients. Indeed, one of the most important aspects of the services provided is the personalized,

door-to-door nature of the pickup and delivery of the clients. This is also a major difference between the service that is offered under the auspices of the LETS GO program and that which might be considered as a substitute, for example, SEMTA Connector Service or subsidized taxis. As currently structured, the substitutes would almost assuredly not provide the level of service that is now being delivered. Numerous riders were interviewed during the course of the project; some were actually riding on the buses and others were interviewed at the various centers. In general, it was noted that the drivers and passengers typically had a very good relationship; that is, the drivers knew their passengers and vice versa. One of the real problems in considering large-scale enhancements of elderly and handicapped services is the loss of this sort of bonding that typically is achieved only with local control of the service.

Several points need to be made regarding comments that were gathered from users of the systems. First, the services being offered are clearly important to the clients who are taking advantage of them. Second, comments received regarding SEMTA services were not particularly positive in that the clients felt that the LETS GO services offered were superior to those offered by SEMTA'S demand-responsive system. Whether these comments pertain to the SEMTA service before or after the recent budgetary problems is probably important since significant service reductions occurred in response to fund limitations. Lastly, there was a clear indication of the need for a variety of services, although some priority-response may be necessary for the providers.

Assessment of Relevant Institutional Issues

The last major area of concern in the analysis, and perhaps the most difficult to accurately represent, is the general organizational and political climate in which the LETS GO program exists. During the course of the review, numerous meetings were held with representatives of UPTRAN, SEMTA, the providers themselves, UCS, and the Detroit Senior Citizens Department. While most had a similar opinion on the need for elderly and handicapped services in Detroit, there were varying views on which agencies were best suited to provide them. It seems reasonably clear that not every group had the same agenda when the provision of transportation services was considered.

Ultimately, the important questions concern the philosophy of the program. For example,

- If the existing service is expanded, what group or agency should administer the program?
- Does UPTRAN, or MDOT in general, wish to be in the position of subsidizing and dealing directly with a large number of loosely organized, community-based providers?
- Can the current providers expand service or would other groups be included in the program?

UPTRAN was approached with the idea of funding a special-purpose, pilot transportation program in Detroit with the goal of satisfying the unmet need for assisted transportation services. UPTRAN was contacted because of a lack of money in other social-service-oriented programs. Further, there was

the feeling that SEMTA was unable to meet this need for any one of a variety of reasons but presumably primarily because of funding problems. The door-to-door assistance issue was also of primary concern given the nature of the client groups.

Because of problems with UPTRAN not being able to contract directly with the actual providers of the service, a rather imaginative administrative structure evolved which saw, for example, all monies flowing through the city of Detroit's Senior Citizen Department to, in one case, a central clearinghouse agency and then to the providers, and, in the other case, from the city to the provider.

For some of the actual providers, the idea of a central coordinator is seen as a blessing of sorts that relieves the neighborhood-based agency of considerable bureaucratic "hassle." However, others saw the delays in getting the needed monies through the pipeline as the hassle. This is not so much an indictment of the structure as it is a real difference in the needs of different providers.

All of the DATC participants saw real advantages in the coalition idea in terms of "strength in numbers" when UPTRAN or other groups needed to be approached. At the same time, there was some disagreement as to whether or not the coalition should be more formalized or expanded. One view perceived this as more numbers, more strength. Another saw a relatively small number of resources being divided into smaller and smaller portions.

Although most providers had a relatively pessimistic view of SEMTA's present, past, and future responsiveness to the transportation problems being considered, SEMTA's view was, understandably, much more positive. SEMTA viewed their limited successes in providing such service as primarily a funding problem. DDOT, on the other hand, was never really mentioned as being an active participant, either currently or in terms of any future role, in providing this sort of demand-responsive service to special client groups. One of the original goals of the analysis was to evaluate whether the providers could become self-sufficient in terms of the provision of service. It would seem that much, if not most, of the service being provided under the auspices of the LETS GO program would simply not be offered if the funding were to be withdrawn. Indeed, these providers had turned to UPTRAN because there were no other funding sources for the needed transportation services. As indicated earlier, the question then becomes one of whether UPTRAN should, or can, become involved with long-term support of such programs.

It seems reasonably clear that there is an unmet need for elderly and handicapped services in Detroit and much of the metropolitan area, and other urban areas as well. There are several dimensions to this demand. The client group is typically poor and often lives in relatively unsafe areas. The needed trips are for several purposes ranging from special events to shopping and from food and friendship to medical. While a priority could be placed on different types of trips, medical trips would seem most important. Some sort of dependable public transportation is clearly a vital aspect of life for the client groups if their life-styles are going to approach the richer, safer, and healthier life-styles of their counterparts in more fortunate circumstances. This need exists in a context of typically diminishing funding from transportation and social service agencies alike.

The need unquestionably exists and therefore service expansion is warranted. Assuming that increased funding were available from UPTRAN or some other agency, the question becomes how those funds could best be parceled out among competing agencies.

While it appears clear that local delivery of services has the advantage of a personalized service that is important for the client group, it is not at all clear that the individual social service agencies either are providing all of the needed services or could accommodate the needed expansion. Further, it is not at all clear that simple expansion of the current coalition of agencies (or combining, for example, DATC and CAUSE) would necessarily lead to more efficient or more comprehensive services.

This situation logically requires a reconsideration of SEMTA's role in the provision of such services. Although SEMTA's operating costs were not obtained, it seems clear that delivery of services by SEMTA would, at least in the short term, increase per-trip costs. However, there are several very positive aspects to a scenario where SEMTA has the lead role in delivering elderly and handicapped services. These include the facts that SEMTA already has similar established programs in place; it is one of the prime line-haul service providers in the area; it has (or would have) the resources to shuffle between agencies in the event of short-term heavy demand, equipment problems, and so forth; and it has the management and control mechanisms required for a large-scale program. SEMTA could also fulfill the role of local arbiter when resources are to be divided among communities. The most significant negative aspect of SEMTA's taking on this role is the loss of the personalized and assisted services currently being offered.

It is clear that SEMTA should receive an opportunity to take this lead role in the context of coordinating the services. That is, SEMTA should have the primary administrative and managerial role for provision of elderly and handicapped services. The actual delivery of services could be left to the local agencies. Several actual operating scenarios are possible. For example, drivers could be hired by the local delivery agency but paid directly by SEMTA, all vehicle maintenance could be handled by SEMTA directly, SEMTA could provide back-up and extra vehicles, and trip scheduling could be done locally by persons partially covered by SEMTA. Alternatively, all personnel could be hired and administered at the local level with the agency having a contract with SEMTA to actually deliver the services using SEMTA-owned vehicles. Whatever the arrangement, the net result of SEMTA involvement should be a smoother delivery of more comprehensive services without compromising the personalized nature of the service.

In further support of this contention, it is difficult to believe that the current administrative arrangement will continue to be productive over time, especially if the providers involved or the services provided increase.

Over the long term, the alternative of simply expanding the existing services will result in a patchwork of uneven service or, alternatively, if acceptable service continues, a large-scale agency that competes with SEMTA for scarce funds. Neither of these alternatives makes sense in an era of plentiful resources, let alone when resources are scarce. This conclusion can be generalized to other areas. If an established transportation provider exists, primary consideration should be given to that

agency providing the assisted elderly and handicapped service directly, or alternatively, especially if the service area is relatively large, to that agency assuming the key coordinating role with the actual provider being an agency that is actively dealing with the client groups.

SUMMARY AND CONCLUSIONS

The provision of assisted elderly and handicapped services in Detroit and other urban areas is clearly needed since there is a sizable population that does not currently receive adequate transportation service benefits. The LETS GO program is an attempt to deliver this service to selected communities in Detroit and elsewhere.

A substantial service is being delivered by the providers although it is unlikely that any of them are completely meeting the needs in their respective neighborhoods. This is indirectly demonstrated by noting that there is a significant variation in the types of trips being serviced in the different neighborhoods, and yet all of the services are being "consumed." Thus, it is argued that, for example, there is an unmet need for medical trips in neighborhoods where the emphasis is on social-service-center activity trips. Conversely, there is a need for food and friendship trips in neighborhoods where the emphasis is on medical trips.

Given that the demand for assisted elderly and handicapped services is established, the principal questions concern how best to deliver the service. It is the contention here that such services should be expanded both in scope, that is, a more comprehensive service needs to be offered, and geographically, that is, there are other neighborhoods that need such service.

In light of the foregoing, the recommendations resulting from the review of the LETS GO program were as follows:

- Assisted, as opposed to curb-to-curb, transportation services should be expanded in Detroit and other areas for specific client groups, specifically the elderly and handicapped.
- More work needs to be done on the assessment of the scope of the demand, in terms of both the services offered and the spatial distribution of the clients.
- Regardless of the form of any future funding, funding agencies need to explicitly specify to the providers which data must be collected and how collection is to be accomplished. This is not only so that the service delivery of the providers can be evaluated, but also so that ongoing needs assessment can be made to support, for example, requests for additional resources.
- Established funding agencies, such as UPTRAN, and providers, such as SEMTA, need to be made aware of the real needs of the client groups.
- Local providers need to be made more aware of why operational data need to be collected and reported, and why it is important to track, for example, operating efficiency, regardless of the type of service being offered.
- SEMTA, and possibly DDOT, should become the focus for program expansion in Detroit. Current providers should continue to be the actual providers of the service under some sort of administrative arrangement with SEMTA. Such an arrangement could, for example, consist of the local provider operating under contract to SEMTA. SEMTA would then become responsible for basic support services such as provision and maintenance of principal and back-up vehicles.

- LETS-GO-type programs elsewhere should, where possible, be set up to operate through the principal transit provider on a contractual or similar basis.

It is unlikely that assisted elderly and handicapped transportation services can be financially self-sufficient. Therefore, these services will require significant levels of public subsidy if they are continued or expanded.

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