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# Two Options for Travel Needs of Mentally Retarded: Implications for Productivity and Cost-Effectiveness

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The mentally retarded have a growing effective demand for transportation because of progressive deinstitutionalization. Simultaneously, local transit operators have a renewed obligation to implement special efforts that meet the travel needs of the retarded. This paper examines two options that would comply with the interim directives pertaining to Section 504 of the Rehabilitation Act of 1973. First, mobility training for independent travel on fixed-route systems is a very cost-effective option of interest to both line-haul operators and social service agencies who must purchase transportation for the mentally retarded. Furthermore, independent travel ability greatly enlarges employment, recreational, and locational opportunities for the mentally retarded individual. The second option is extending paratransit services to the mentally retarded. Client mixing and time sharing of the mentally retarded with other patrons, especially the elderly, can be both practicable and desirable. Incorporated paratransit services for the mentally retarded are practicable because of the complementary travel-demand patterns of the elderly and the retarded. Combined services are desirable because the mentally retarded can form a ridership core that is efficient and remunerative to serve. Problems can and do arise, occasionally because of client misbehavior, more often because of inadequate planning by transit operators. Nonetheless, incorporating the mentally retarded onto paratransit systems already serving the elderly or devising a system for the retarded can significantly raise the productivity of special transit systems.

The mentally retarded make up a significant fraction of the nominally handicapped. In the United States they represent 3 percent of the national population, or approximately 6.1 million individuals. The majority of retarded persons—between 75 and 90 percent—can, with special assistance, be expected to function independently in community life( $\underline{\mathbf{l}}$ ).

Unfortunately, the mentally retarded have been uniformly overlooked by federal transportation policymakers, despite their sizable numbers, their special transportation needs, and, most importantly, qualification as a distinct portation-handicapped population under relevant federal legislation (2). The most widely used estimate of the national population of the elderly and physically transportation handicapped is lion (3). However, the mentally retarded are not included in this count (unless they are also physically handicapped). This omission is rather astonishing: The addition of the 6.1 million mentally retarded persons to the 7.4 million elderly and physically disabled would exceed the initial estimate of the travel handicapped by 82 percent. It suggests that there is really a total of 13.5 million transportation-handicapped individuals in this country.

This is a particularly appropriate time to examine the transportation needs of the mentally retarded and the major options available to meet those needs. First, U.S. transit operators have just received new interim directives from the U.S. Department of Transportation (DOT) concerning their obligations to the physically and mentally handicapped. Because of these new policy directives, many local transit operators are struggling to define and develop new transportation services.

Second, this is an opportune moment to examine the special transportation problems of the mentally retarded because of the increasing emphasis in the social service delivery system on the deinstitutionalization of the mentally retarded. As more of these citizens are returned to the community or are placed there directly, their effective demand for transportation services will increase.

Third, some agencies and institutions dealing with the mentally retarded have not recognized the potential effectiveness of several transportation options in meeting the needs of the mentally retarded. In particular, these agencies have been slow to perceive the value and success of training the mentally retarded to use conventional fixed-route transit.

CHOOSING MOST COST-EFFECTIVE OF TWO MAJOR TRANSPORTATION OPTIONS

This paper will focus on two separate methods of meeting the transportation needs of the mentally retarded: mobility training and the provision of separate special paratransit services. The paper will suggest how these two options can and should be viewed by agencies in three different positions:

 Local communities and transit operators endeavoring to devise the most appropriate or cost-effective method of serving different types of handicapped people,

Current special efforts or community paratransit systems trying to increase the usefulness

and productivity of their services, and

Agencies responsible for the mentally retarded who are struggling to provide these citizens with a productive and meaningful life.

This paper argues that the most appropriate response to the transportation needs of the mentally retarded will be conditioned by the kinds of transportation services available in a given community. fixed-route transit services exist. travel-training is an effective and usable option for most of the mentally retarded. Where special transportation systems are the only available or feasible service, the productivity of these services could be enhanced by incorporating the mentally retarded into the existing system. The implementation of both options might be practicable and cost-effective in communities served by both paratransit services and fixed-route transit.

It is imperative that transit operators and paratransit systems operating in part or totally with DOT funds recognize that they have the legal obligation to serve the mentally retarded. This paper suggests that it is crucial for such systems to consider the most cost-effective way to provide these If they do not, citizens with required services. such systems may be inundated with the inevitable demand of these citizens as their numbers increase transit service areas (through deinstitutionalization) and they or their advocates become aware of their rights.

Careful planning will allow transit operators and paratransit systems to accommodate the mentally retarded in the most cost-effective manner. Moreover, this paper argues that such systems can use the travel patterns of these citizens to increase the overall ridership and productivity of both paratransit and conventional transit services.

#### LEGAL OBLIGATIONS TO MENTALLY RETARDED

The mentally retarded clearly are encompassed by the interim regulations pertaining to Section 504 of the Rehabilitation Act of 1973, issued by DOT on July 21, 1981, by virtue of the inclusion of the retarded in previous legislation ( $\underline{2}$ ). The eligibility of the mentally retarded for prior special-efforts legislation is established by Section 16(d)(2) of the Urban Mass Transportation Act of 1964, which states that

for the purposes of this act the term "handicapped person" refers to any individual who, by reason of illness, injury, age, congenital malfunction, or other permanent or temporary incapacity or disability, is unable without special facilities or special planning or design to utilize mass transportation facilities as effectively as persons who are not so affected.

Under the interim regulations, local transit operators who are recipients of Urban Mass Transportation Administration (UMTA) Section 5 funds are allotted autonomy in how and to whom they provide special transportation services. The only stipulation is that operators must make a minimum expenditure in amounts equivalent to 3.5 percent of their Section 5 funds on special-transportation efforts for all the handicapped (Federal Register, Vol. 46, No. 138, July 20, 1981).

However. the interim directives charge special-efforts transit operators to focus their compliance endeavors on "those handicapped persons who are employed or for whom the lack of adequate transportation constitutes the major barrier to employment or job training." This requirement is especially applicable to the mobility needs of the mentally retarded, whose primary travel demand is for commutation to job-training centers or competitive or residual (workshop) employment destinations (4-6).

OPTION ONE: MOBILITY TRAINING FOR FIXED-ROUTE TRANSIT

Mobility training is a program designed to teach mentally retarded pupils how to ride regular fixed-route transit without continuing assistance or special aids. The number of retardates who are potentially able to benefit from mobility training is very high--5.4 million (of moderately and mildly retarded individuals), or 89 percent of the national population of 6.1 million retarded persons (6).

Independent travel ability benefits the retarded individual in several ways. Increased mobility enlarges employment opportunities, improves the accessibility of educational and recreational resources in the community, and enhances the individual's sense of worth and competency  $(\underline{5},\underline{6})$ . Furthermore, independent mobility for the mentally retarded reduces significantly the social service cost of providing alternative special transportation services to untrained individuals  $(\underline{5},\underline{6})$ .

Mobility-training programs for the mentally retarded were adapted largely from earlier training programs created for the blind (5). Curricula from a variety of programs that instruct the mentally retarded in the use of fixed-route transit share a number of features: a very high teacher-to-pupil ratio, safety and pedestrian skills, and route familiarization and on-site training (4-6). A more detailed description of mobility training was provided in an earlier paper (2).

The applicability of mobility training in any community depends on whether a line-haul system is in place. When it is, mobility training is, with certainty, the cheapest available alternative. It is more cost-effective to train a mentally retarded individual to ride a line-haul system than to provide that same person with specialized transportation services.

# Comparing Costs of Mobility Training and Specialized Services

If both options are a possibility, the costs can be compared. The full cost of mobility training can be contrasted with both the average and the marginal cost of providing equivalent paratransit service for the same number of trips. Unfortunately, such a comparison is possible only when both sets of cost data are available.

Current mobility-training costs have been provided by the Center in Mental Retardation, located at the California State University at Los Angeles (CSULA). This program, which was begun in July 1980, has trained 140 mentally retarded individuals to travel independently by using the Southern California Rapid Transit District (SCRTD) bus system.

The Center in Mental Retardation reports the average, one-time cost of instruction to be approximately \$280 for each individual. This average cost includes administrative overhead, salary and expenses for instructors, insurance, and the purchase of the SCRTD bus passes required for the training period. The \$280 includes additional training, although recidivism (the need to relearn travel skills) is not a problem. Instead, retraining has been devoted to learning additional routes, which enables the retarded client to take advantage of expanded recreational and social opportunities.

Data from several sites (e.g., the Center in Mental Retardation and the Good Shepherd Center for Independent Living in Los Angeles, the Center for the Retarded in Houston, and the Conrad School in Pittsburgh) show that individual instructors are able to train a minimum of 36 mentally retarded pupils a

year to successfully use fixed-route transit. Often the number of individuals trained is much higher.

From the perspectives of both transit operators and social service agencies, the cost of training (and subsidizing travel thereafter, if necessary) is much cheaper than the cost of providing or purchasing special transportation services. The average cost per one-way trip supplied through special transit services has been estimated to vary from \$7.62 ( $\frac{7}{2}$ ) to \$10.40 ( $\frac{8}{2}$ ). The State of California currently sets a maximum rate of \$9.65 per round trip, which private transit providers are allowed to charge for ambulatory individuals.

The following scenario, by using Los Angeles data (which may be on the higher end of the cost spectrum), illustrates the difference in cost between the options of mobility training and special transportation services. If a mentally retarded individual needs to travel to a workshop 250 days a year, the cost for one year would be estimated as follows:

- 1. Mobility training: The cost of training (\$280) combined with the cost of bus passes for 11 months purchased from SCRTD (\$286) yields a total cost of \$566, which, divided by the number of one-way trips (500), yields a cost of approximately \$1.13 per one-way trip.
- Purchased paratransit: The cost of purchasing the same 500 one-way trips from a private provider (at \$9.65 per round trip) would total \$2412.50 annually.
- Supplied paratransit: The cost of directly supplying those 500 one-way trips, even at \$7.62 per one-way trip, would be \$3810 annually.

It is obvious that, in terms of costs alone, travel training is a far more cost-effective special-efforts alternative. The cost of instruction for mobility training would have to more than quadruple in order to become equivalent to the costs of supplying or purchasing special paratransit services. Conversely, from the perspective of social service agencies, for every four or more individuals who can, with mobility training, be diverted from paratransit to fixed-route transit, one additional person can be supplied with special transportation who is not capable of being travel-trained.

#### Further Considerations Regarding Mobility Training

Investment in mobility training is justified by the reported high rates of success. The Ray Graham Center in Chicago reported that, of 40 individuals who participated in their training program, 90 percent achieved proficiency in independent travel (4). The Center in Mental Retardation in Los Angeles reports that only one of the 140 individuals who have undertaken training since the program began in 1980 was unable to learn independent travel skills. This represents a remarkable rate of success because the Center in Mental Retardation used no preselection criteria other than need for participation in the program.

The primary impetus for establishing mobility-training programs has been the great need to travel to workshop or job-training sites (4,5). At the Center in Mental Retardation, an estimated 80 percent of the clients were trained for home-based trips to workshop sites. Furthermore, the Center expects that those individuals who receive training will continue to travel independently to workshop sites when training is completed. It is important, therefore, that transit operators note that this overwhelming need for work or workshop trips fulfills the interim 504 directives, which require that

special efforts be focused on trips for these purposes (Federal Register, Vol. 46, No. 138, July 20, 1981).

#### OPTION TWO: SPECIAL TRANSIT SERVICES

In the absence of effective line-haul transportation service the mentally retarded must rely on special transit services, including those provided by transit operators in compliance with the 504 directives. In fact, the mentally retarded are currently using these services in substantial numbers.

Information from several quite diverse systems indicates the magnitude of the effective demand of the mentally retarded for these services: The mentally retarded make up 30 percent of the ridership on special transit systems in Riverside and Pomona Valley (southern California), more than 33 percent of the ridership on Metrolift (Houston), 25 percent of the ridership of the special transit system in Fort Worth, and 33 percent of the ridership from a five-county area served by the Southeastern Michigan Transportation Authority (SEMTA). The patronage of the mentally retarded was neither anticipated nor planned for when these systems were implemented.

This paper argues that paratransit systems subject to Section 504 mandates or to similar state mandates (as in California) must recognize the potential as well as the problems offered by the travel patterns of the mentally retarded. These citizens have the legal right to use such systems. Ignoring their needs will not lessen the likelihood that they will use, and perhaps overwhelm, special-efforts systems. At the same time, an intelligent approach to meeting the special needs of the mentally retarded will often increase the overall efficiency and productivity of the system.

This last point should be of interest to community and social service paratransit systems not subject to Section 504 mandates. Recognizing the special travel patterns of the mentally retarded can be useful to system planners trying to increase the productivity of their system or effectively exploit underutilized capacity.

#### Mentally Retarded as Core of Special Transit Service

Special-efforts transit operators and other community transportation providers should note that, under certain conditions, the mentally retarded can constitute a ridership core of regular or periodic travelers frequently using a system (9). They may serve as the foundation of a paratransit system by virtue of both the nature and the quantity of the trips they make.

Many systems for the elderly and the handicapped currently serve sizable numbers of elderly people (10). The travel demand of the mentally retarded is divergent from, yet complementary to, the travel demand of the elderly. The mentally retarded have a greater density of demand than do the elderly in terms of spatial location and the frequency of travel. The progress of deinstitutionalization has resulted in a situation where, increasingly, individuals who formerly would have been housed in large congregate-care facilities are now consigned to group living in the community.

Other travel characteristics exhibited by the mentally retarded augment this density of demand. These include a conventional commutation-trip pattern according to trip purpose, trip frequency, and time of travel. Just as with travel-training, the primary trip purpose of the mentally retarded who rely on paratransit systems is travel to workshops  $(\underline{9},\underline{11},\underline{12})$ .

For example, Get About, a system serving all the elderly and handicapped in the Pomona Valley of California, reports that for a three-month period ending in June 1981, travel to workshop sites constituted 37.1 percent of all passenger trips taken. On this system travel to workshop sites is conducted on a regular and frequent basis, usually three to five days a week. This pattern is seen in other systems that have a sizable clientele of the mentally retarded (9,11,12).

The elderly have a demand for special transit services that is quite distinct from the travel demand of the mentally retarded. The elderly are quite often less efficient to serve and are becoming more so in part because they are becoming more locationally dispersed. For example, in Angeles, the elderly have increasingly begun to live independently in separate households; in turn, such households are decentralizing within the Los Angeles region (13). The trend toward the decentralization of the residential location of the elderly has been confirmed as a national trend for metropolitan areas (14). Lowered living density decreases the level of demand for transit services and also renders those services more difficult to deliver (15).

The primary travel demand by the elderly for special transit services is for social and recreational needs combined with a more occasional need for social service and medical trips (16). Correspondingly, the need for this travel is at sporadic, infrequent intervals. Unless elderly patrons are attending congregate meals, travel by the elderly on paratransit systems is conducted on an individual rather than on a group basis. All these factors will reduce vehicle productivity for special systems serving the elderly.

On the other hand, the mentally retarded who have a need to attend workshops tend to travel in groups and with greater frequency than either the elderly or the physically handicapped and with a need for travel that is concentrated in the peak periods. Also, because they are traveling to shared destinations, the mentally retarded can be served on a relatively fixed route. All these trip-making characteristics increase vehicle productivity for systems serving the mentally retarded (17).

### Travel Patterns and Vehicle Productivity

Because the travel demand of the mentally retarded is predominantly directed toward peak periods whereas that of the elderly is directed toward the off-peak, complementary demand patterns are created. Thus, paratransit operators can time-share their clients, providing subscription service in the peak and demand-responsive service largely for the elderly in the off-peak. By taking advantage of this time-sharing potential, operators can improve vehicle productivity without having to increase their systems' capital stock investment (18).

Time-sharing was used in this fashion by a paratransit system serving Rochester, New York. The Association for Retarded Citizens there needed to have some of their clients transported to a workshop. By allocating vehicle time to serve this group, the paratransit operator was able to provide at least twice as many trips per vehicle service hour as could be provided by the regular service for the elderly and handicapped (9). In this instance, the paratransit services were created around a ridership core composed of the mentally retarded.

A different example, Call-a-Ride of Barnstable County, Inc., of Massachusetts, is a demand-responsive system that was originally created to serve the elderly and physically handicapped in a rural area. A fiscal crisis precipitated by a loss

of funding motivated the system to incorporate the mentally retarded into its existing services. Through incorporating the retarded, Call-a-Ride was able to share indirect costs and extend more services to individuals with special transportation needs. The system was able to increase its ridership for fiscal year 1978 from 46 000 trips to 70 000 trips (an increase greater than 52 percent) without having to expand its vehicle fleet (12). This ensured Call-a-Ride's continued operation.

Easyride of New York City provides an instructive example of the consequences of not incorporating the type of demand-responsive services most used by the elderly with subscription services most useful to the mentally retarded. Easyride was established to serve primarily the elderly; consequently, only 3 percent of its ridership consists of mentally retarded patrons (19). Furthermore, Easyride reported a vehicle productivity figure (measured as the number of trips divided by the number of service hours) of 2.15. This figure would have been lower had not Easyride transported groups of elderly clients to congregate meal sites.

Easyride attributed its low productivity to inordinate amounts of nonproductive vehicle time
caused by the underutilization of the system during
peak travel periods (19). A system like Easyride
could have improved its productivity by using the
travel demand of the mentally retarded to exploit
empty service hours. It appears that increasing the
ridership of the mentally retarded beyond 3 percent
would have constructively addressed the need reported by Easyride to "increas(e) demand during the
early morning and late afternoon service periods"
(19).

### Comparison of Two Systems

Easyride has previously been compared with Dial-a-Bat of Brockton, Massachusetts, because both systems possess comparable service areas and fleet sizes (19). Most of the patronage of Dial-a-Bat exhibits a travel-demand pattern that is equivalent to the demand for travel by the mentally retarded on other systems (no claim is made that Brockton's subscription service is used largely by the mentally retarded) (11).

Contrasting unit operating cost ratios of both systems illustrate the consequences of not incorporating peak subscription services for the mentally retarded with off-peak demand-responsive services for the elderly. Table 1 illustrates the opportunity costs of foregone vehicle productivity (19).

The subscription-based ridership core contributed significantly to Dial-a-Bat's productivity. For example, the vehicle productivity ratio of 12.73 obtained for Dial-a-Bat's subscription service greatly exceeded the vehicle productivity ratios generated by the demand-responsive systems of both Easyride and Dial-a-Bat (2.15 and 1.58, respectively). Even though Dial-a-Bat's demand-responsive productivity alone was even lower than Easyride's, the average productivity of Dial-a-Bat's combined system (7.15) was three times greater than that of Easyride. Dial-a-Bat was explicitly able to use the contracted subscription services to cross-subsidize the demand-responsive service, which was less efficient to provide (11).

## Potential Conflicts

Although paratransit systems can increase productivity by incorporating the mentally retarded into the system, problems can arise in some situations. If a paratransit system is at service

Table 1. Operating costs of foregone vehicle productivity.

Cost	Unit Operating Ratio			
	Dial-a-Bat			Physical Co.
	Subscription	Avg	Demand- Responsive	<ul> <li>Easyride (demand- responsive)</li> </ul>
Vehicle productivity	12.73	7.15	1.58	2.15
Fare level (\$)	3.50	-	1.00	NA
Recovery ratio (%)	-	40	-	NA
Revenue per vehicle hour (3)	Ÿ	5.60	3	NA.
Cost per trip (\$)	1.02	3.26	5.49	12.87
Daily trip generation	358	-	91	144

Notes: Adapted from earlier table (18).

NA = not applicable,

capacity, it may experience congestion because of excess demand by the mentally retarded for peak-period service hours. This reduces the ability of the paratransit operator to serve demand-responsive trips. Often, as on the Houston Metrolift, elderly patrons are denied service during the early morning and late afternoon service periods, which are instead devoted to trips made by agency-contracted mentally retarded patrons (20).

The problem of congestion is caused by limited capacity and by social service agencies who "dump" their clients onto paratransit systems provided by both transit operators and community-wide social service agencies. This problem is encouraged by a low fare or donation-only policy. A combination of low fares and flexible rules regarding the eligibility of patrons creates a cost-savings incentive for agencies to use the system for their clients to a degree unanticipated by the operator.

This phenomenon is currently being experienced by Get About, a donation-based human service transportation system serving the Pomona Valley in southern California. Get About transports large numbers of the elderly, the orthopedically crippled, and, more recently, mentally retarded clients of social service agencies. The ridership share of the mentally retarded has increased substantially. Of all the trips provided for July 1981, 44 percent were taken by 130 mentally retarded individuals. This has created congested service during the peak travel periods and has forced elderly patrons to compete for service with the mentally retarded.

Although the total number of mentally retarded users on Get About is higher, these 130 regular riders form a ridership core that travels five days weekly to congregate workshop sites (37.1 percent of total passenger trip purpose).

Get About attributes its 22 percent increase in productivity (e.g., from 2.89 to 3.54 trips per vehicle hour) to the addition of these mentally retarded patrons to its system during 1980 and 1981. Yet, because Get About is donation-based, it cannot rely on a guaranteed cost recovery through donations to cover the increased marginal costs of extending services to these clients. Get About is faced with the paradox of increased productivity without a concomitant increase in revenue.

# POLICY: ISSUES, PERSPECTIVES, AND SUGGESTIONS

Neither mobility training nor special transit services should be pursued exclusively. There will always be a profound need by some percentage of the mentally retarded for special escorted transportation even when an effective line-haul system is in place. Also, in areas without line-haul transit, special transportation services may represent the only option for the mentally handicapped. In areas

served by fixed-route transit, however, mobility training and strictly regulated special transit services may together represent an effective, concerted approach to compliance with the interim 504 directives.

The eligibility of the mentally retarded for special transportation services is not abated entirely if, with training, they could ride buses for some trips. However, transit operators should not provide duplicative special transportation services covering routes also served by fixed-route transit to persons who could be trained to use such transit.

# Suggestions for Transit Operators Regarding Mobility Training

The mobility-training option, from the perspective of the transit operator who provides both line-haul and special transportation services, represents a tool for diverting the effective demand of the mentally retarded from paratransit to regular transit modes. As noted earlier, mobility training is inherently more efficient to provide on an individual basis than are special transit services. Substitution of a cheaper service ensures that the transit operator will achieve a more efficient allocation of the expenditures for special efforts.

Mobility training can be interpreted by transit operators as the provision of an indirect transportation service and therefore is in compliance with the interim 504 directives. Payment of the expenses incurred by mobility training rather than providing training directly would also constitute compliance.

There are three ways transit operators can provide travel-training. First, they may directly pay agencies to provide training or they may subsidize training efforts by granting agencies or schools complimentary bus passes. Second, transit operators can provide buses or operating personnel to assist training endeavors, as do, for example, SCRTD, the San Mateo Rapid Transit District, and the Chicago Transit Authority (4). Third, transit operators can initiate system changes (e.g., routing, hours of service) in order to more fully accommodate the work and recreation travel needs of the mentally retarded. Attention to the job-training and workshop needs of the mentally retarded would comply with the special section of the interim 504 directives.

#### Special Transportation Services

Suggestions for Transit Operators Receiving Section 5 Funds

The provision of special transportation services to the mentally retarded is of course currently an option for transit operators who are recipients of Section 5 funds. Paratransit systems provided by transit operators must actively consider the mentally retarded when planning how to meet their special-efforts obligations. Not only do transit systems have an obligation to provide services to the mentally retarded as to other transportation-disadvantaged groups, but there exists an incentive for doing so--the capture of the productive service features of the travel demand of the mentally retarded.

The best way to accommodate the divergent demands of both the elderly and the retarded is to adopt a dual system like Dial-a-Bat's, whereby two (or more) services are provided from one physical plant. There are several advantages to using a contract subscription service to handle the concentrated demand displayed by the mentally retarded. The pivotal advantage is that the paratransit system can

recover some of the costs of service through contracts with social service agencies.

Contracts accomplish two benefits: they create a predictable source of revenue for the operator, and attractive contract rates will allow the operator to manage demand. By encouraging agencies to register their clients, the operator will be able to induce demand for services and yet discourage agencies from the unrestrained "dumping" of their clients on the system (20).

Transit operators can expect to charge a significant portion of the cost of services because social service agencies dealing with the retarded have a relatively inelastic demand for the purchase of transportation for their clients. Social service agencies that represent the mentally retarded are often willing to pay the costs required to transport their clients to workshops and for other critical needs.

Some issues of equity can arise when public systems charge differential fees for subscription services (versus demand-responsive trips). In this regard issues of both fare and level-of-service equivalency between special transit services and public line-haul systems are also raised (21). These issues cannot be addressed directly here, yet I can note that paratransit operators may argue that they provide qualitatively better levels of service to mentally retarded (subscription) clients in several ways.

First, subscription services eliminate the need to make continuing reservations and therefore guarantee daily (or recurring) capacity (21). Second, a special transit trip often takes only half as long as it would if it were supplied through line-haul transit (21). Third, escorted travel, if necessary for some agency clients, would constitute an improvement in service. Therefore, transit operators may argue that they are justified in charging correspondingly higher rates for those peak-period service hours when escorted, subscription travel services would be offered.

Suggestions for Agencies and Transit Operators Not Receiving Section 5 Funds

Social service agencies and transportation providers (who are not under Section 504 mandates) serving the elderly in particular should be aware that as their elderly clients become more geographically dispersed they will also become increasingly difficult to supply with transportation services (13). Incorporating services with those for the mentally retarded will allow these systems to guarantee the continuation of acceptable levels of transportation services to the elderly.

It is possible to offer assurances to providers who are hesitant to combine transit services for the elderly and mentally handicapped because of a concern about social incompatibility. First, the incidence of inappropriate behavior among mentally retarded patrons may be expected to decrease as community placement, rather than institutionalization, proceeds; there is a direct correlation between the length of institutionalization and the degree of social immaturity of the mentally retarded individual (22, p. 213).

Second, public tolerance of the mentally retarded by their neighbors in residential communities improves with increased proximity (23). That the elderly can acquire tolerance for the retarded persons who share transit services with them is indicated by the experience of the Center in Mental Retardation. Its mobility-training program purposefully hired only senior citizens as travel instructors. Despite their initial concerns, these elderly instructors

developed very strong attachments to their pupils.

As a final note, segregating travel services and facilities for the mentally retarded and the elderly is futile when these two populations are increasingly sharing other facilities. A survey whose respondents included more than half the institutions serving the mentally retarded in the United States revealed that 26 percent of their mentally retarded clients, on their release from an institution, were consigned to nursing home facilities for the elderly (24).

#### CONCLUSION

The recent changes in federal transportation policy return a large measure of autonomy to local transportation providers in determining how they should respond to special transportation needs. The declining decision role of the federal government coincides with the increasing emphasis on community-based services to the mentally retarded. At this juncture, therefore, the mentally retarded have a growing need for transportation services, whether supplied through special paratransit or through conventional fixed-route transit, whereas local transit operators have a renewed obligation to meet the mobility needs of the transportation handicapped.

As an instrument of federal intent the interim 504 directives are irrelevant to the mentally retarded: Their travel needs have yet to be explicitly addressed by DOT. Yet transit operators should be aware that the mentally retarded may make up a significant fraction of the transportation handicapped in their service area, that the retarded can be served efficiently and remuneratively by paratransit, and that mobility training will enable some clients to use fixed-route transit. Providing these efforts will satisfy federal mandates to comply with the interim 504 directives, Much more importantly, the options described in this paper promise to truly enhance the mobility of the mentally retarded.

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