

DOCUMENT RESUME

ED 144 244

EA 009 957

AUTHOR Kirby, Ronald F.; Tolson, Francine L.
TITLE Improving the Mobility of the Elderly and Handicapped through User-Side Subsidies. Working Paper: 5050-4-4.
INSTITUTION Urban Inst., Washington, D.C.
SPONS AGENCY Urban Mass Transportation Administration (DOT), Washington, D.C.
PUB DATE Aug 76
NOTE 32p.; For a related document, see EA 009 958

EDRS PRICE MF-\$0.83 HC-\$2.06 Plus Postage.
DESCRIPTORS Capital Outlay (for Fixed Assets); *Delivery Systems; Efficiency; Federal Aid; Federal Legislation; *Financial Support; Grants; *Handicapped; Interagency Cooperation; Legal Problems; Local Government; *Mobility; Mobility Aids; *Older Adults; Resource Allocations; State Aid; *Transportation

ABSTRACT

Elderly and handicapped persons currently receive special transportation assistance through a variety of programs at federal, state, and local levels of government. The different agencies administering these programs tend to work independently of one another, often duplicating transportation facilities and incurring unnecessary costs. User-side subsidies offer a means for reducing the costs of current transportation programs for the elderly and handicapped by placing the subsidy funds directly in the hands of the users and encouraging them to select the providers of their choice. This paper describes the application of the user-side subsidy approach in selected urban areas and discusses some of the obstacles to more widespread use of this technique. It is concluded that by earmarking funds for certain provider types and for certain types of transportation expenditures legislators have created serious barriers to the provision of efficient transportation services for the elderly and handicapped. Even with these legislative constraints, however, agencies administering transportation programs could reduce transportation costs significantly through greater use of the user-side subsidy technique. (Author)

* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *

ED14424

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

This research was funded by the Urban Mass Transportation Administration (UMTA) of the U.S. Department of Transportation. The paper is one of a series prepared for the Office of Service & Methods Demonstrations within UMTA's Office of Transportation Management and Demonstrations. Opinions expressed in the paper are those of the author(s) and do not necessarily reflect the views of The Urban Institute or the research sponsor.

WORKING PAPER: 5050-4-4

August 1976

Improving the Mobility of the
Elderly and Handicapped
through User-Side Subsidies

by

Ronald F. Kirby
Francine L. Tolson



THE URBAN INSTITUTE

2100 M Street, N.W., Washington, D.C. 20037

ABSTRACT

Elderly and handicapped persons currently receive special transportation assistance through a variety of programs at federal, state, and local levels of government. The different agencies administering these programs tend to work independently of one another, often duplicating transportation facilities and incurring unnecessary costs. User-side subsidies offer a means for reducing the costs of current transportation programs for the elderly and handicapped by placing the subsidy funds directly in the hands of the users and encouraging them to select the providers of their choice. This paper describes the application of the user-side subsidy approach in selected urban areas, and discusses some of the obstacles to more widespread use of this technique. It is concluded that by earmarking funds for certain provider types and for certain types of transportation expenditures legislators have created serious barriers to the provision of efficient transportation services for the elderly and handicapped. Even with these legislative constraints, however, agencies administering transportation programs could reduce transportation costs significantly through greater use of the user-side subsidy technique.

INTRODUCTION

Numerous public programs at federal, state and local levels of government currently provide funds which can be used for improving the mobility of elderly and handicapped persons. These programs typically earmark transportation funds in four different ways:

- by the client group which can receive assistance,
- by the particular services the client group can obtain with the assistance,
- by the organizations which can provide the services, and
- by the transportation capital or operating expenses for which the assistance can be used.

Unfortunately, the criteria used for earmarking funds vary greatly between programs, and the agencies administering the programs often work independently of one another with little coordination of objectives and resources.

The General Accounting Office recently informed the Select Committee on Aging of the U.S. House of Representatives that at the federal level alone, there are over 100 programs that provide assistance to the elderly.^{1/} State and local governments have a variety of additional programs of their own. Many of these programs provide for transportation assistance to improve access for the elderly to particular services such as medical care and recreation. Since improved mobility is an implicit rather than explicit objective of these programs, the actual expenditures on transportation services under

^{1/} U.S. Department of Health, Education, and Welfare (1976).

the programs are rarely accumulated as a separate item. As a result, it is virtually impossible at present to estimate the level of public expenditure on transportation for the elderly and handicapped. There is no doubt, however, that these expenditures are substantial and growing.

One federal program for which improved mobility for the elderly and handicapped is an explicit objective is that administered by the Urban Mass Transportation Administration (UMTA) and the Federal Highway Administration (FHWA) of the U.S. Department of Transportation (DOT). The regulations for this program use the term "elderly and handicapped persons" to mean:

"those individuals who, by reason of illness, injury, age, congenital malfunction, or other permanent or temporary incapacity or disability, including those with semi-ambulatory capabilities, are unable without special facilities or special planning or design to utilize mass transportation facilities and services as effectively as persons who are not so affected."^{2/}

The client group for this program, then, is composed of persons who have difficulty using mass transportation facilities, because of disabilities. By comparison, certain other federal programs define the elderly as those persons above a certain age, such as 60 or 65, while still other programs limit assistance to those elderly and handicapped below a certain income level.^{3/}

The DOT program for the elderly and handicapped provides assistance only for those transportation services which qualify as "mass transportation"; services which are shared-ride and available to the public on a regular and continuing basis. Exclusive-ride taxicab services and services restricted

^{2/} U.S. Department of Transportation (1976).

^{3/} U.S. Department of Health, Education, and Welfare (1976).

to a particular organizational or institutional clientele apparently could not receive DOT assistance, for example. Other federal programs restrict transportation assistance to certain kinds of trips, such as those to and from medical or educational facilities.^{4/}

In addition to restricting the public transportation services eligible for assistance, the DOT program has certain restrictions on the kinds of organizations which can receive the assistance and provide the services. Section 16(b)(2) of the Urban Mass Transportation Act provides for assistance to private non-profit corporations and associations without the labor protection conditions which are required under other sections of the Act. During fiscal year 1975 over \$20 million was disbursed under Section 16(b)(2) to 1,031 non-profit agencies throughout the U.S. for equipment to be used in providing transportation services to elderly and handicapped persons.^{5/} This assistance is not available to public transit systems or to private, for-profit taxicab operators, though these and other mass transportation providers can receive assistance under Sections 3 and 5 of the Act.

Programs funded by DOT and other agencies also restrict considerable financial assistance to capital as opposed to operating expenses incurred by transportation providers. Under Section 16(b)(2) of the Urban Mass Transportation Act, for example, a non-profit agency can obtain financial assistance for vehicles and other equipment, but cannot obtain assistance for expenses

^{4/} Ibid.

^{5/} U.S. House of Representatives, Committee on Appropriations (1976).

incurred in operating the equipment. The Medicaid program (Title XIX of the Social Security Act), on the other hand, prohibits the use of funds for equipment purchase, but allows the purchase of taxi or transit services for medical trips.^{6/}

The variations in criteria for earmarking transportation assistance discussed above are merely illustrative of the enormous range of statutes and regulations which govern public programs concerned with improving the mobility of the elderly and handicapped. These complex constraints create a number of obstacles to the efficient and effective delivery of transportation assistance to those in need of it. An analysis by Tye (1973) concluded that restricting transportation assistance to capital expenditures encourages premature replacement of capital equipment and inadequate maintenance. Kirby (1975) suggests that earmarking funds for non-profit providers under Section 16(b)(2) of the Urban Mass Transportation Act "may jeopardize the financial viability of for-profit providers currently serving the elderly and handicapped." And the tendency of the different administrative agencies to establish independent transportation services for their particular client groups often leads to unnecessary duplication of facilities and services.^{7/}

There is widespread recognition that greater efficiency and effectiveness are badly needed in programs providing transportation assistance to the elderly and handicapped, and a number of agencies have already initiated efforts to streamline administrative procedures and eliminate unnecessary duplication.

^{6/} U.S. Department of Health, Education, and Welfare (1976).

^{7/} Ibid.

In our judgment, the crucial element for efficiency and effectiveness in transportation assistance programs is the subsidy technique used to disburse the program funds. This paper is concerned with the relative merits of different subsidy techniques which can be employed to improve the mobility of the elderly and handicapped, and with the various restrictions on public programs which influence or dictate the techniques chosen by local agencies.

The paper distinguishes between two general categories of subsidy techniques: "provider-side subsidies" paid directly to transportation providers for the provision of certain specified services, and "user-side subsidies" paid directly to transportation users, in the form of transportation tickets or vouchers sold at a discount. It is argued that in general the user-side category of techniques offers greater efficiency and flexibility than the provider-side category, and that, to the extent permitted by statutes and regulations, administrative agencies should endeavor to disburse funds through user-side techniques. It is further argued that statutes and regulations which preclude user-side subsidies by restricting financial assistance to certain classes of providers or to certain types of transportation expenses are major barriers to efficient use of the assistance, and should be relaxed through regulatory revision or, where necessary, legislative amendments.

USER-SIDE SUBSIDIES FOR TRANSPORTATION SERVICES

The subsidy techniques available to agencies administering transportation assistance programs can be classified into two general categories: provider-side subsidies and user-side subsidies. Provider-side subsidies are

"those for which the subsidy is paid directly to the transportation provider (such as a transit authority or a taxicab operator), for offering certain specified services at fares which produce insufficient total revenues to cover the provider's costs." ^{8/}

User-side subsidies are

"those for which certain 'target group' users are permitted to purchase transportation 'vouchers' at a price substantially below the value of the vouchers to the transportation providers. The users exchange these vouchers for transportation services, and the transportation providers then redeem the vouchers from the public agency at values agreed to in advance." ^{9/}

The "vouchers" associated with the user-side subsidy category may be any kind of ticket, stamp, or credit card which can be used to provide evidence that trips have been made. The purpose of the vouchers is simply to provide the information needed by the funding agency to determine the correct payment due to the providers. (In fact, if some other means such as an on-board counter can be relied upon for recording this information, it may be possible to do without any physical voucher altogether.) The price the users pay for transportation service can be a fixed amount per trip or a percentage of the regular fare, and can range from zero up to the full fare. The users will normally make their payments either by purchasing tickets in advance and handing them to the

^{8/} Kirby and McGillivray (1975).

^{9/} Ibid.

providers at the time a trip is made, or by paying cash at the time of the trip and signing a charge slip or voucher for the remainder of the fare.

Ensuring that subsidy funds paid to the providers correspond to trips actually made by members of the client group is a major administrative concern for user-side subsidy schemes. Fraud can arise, of course, if reduced rate tickets are used by ineligible persons or if providers find some way of obtaining and redeeming unused tickets. It is well known that some government programs such as Medicaid and the food stamp program which employ the user-side subsidy technique have encountered some difficulty in this regard. However, experience to date with user-side subsidies for public transportation suggests that, for the following reasons, fraud is unlikely to be a serious problem:

- programs can be administered at the local level with close scrutiny over ticket use by each individual member of the client group.
- providers are usually relatively small, competing businesses and highly dependent on local "good will" for their livelihoods. They can ill afford to jeopardize their standing in the community by association with fraudulent activity.

The user-side subsidy approach is not as common in transportation programs as in other social service areas such as medical care, nutrition, and even housing. If proper administrative procedures can be developed, however, user-side subsidies offer many important advantages over the more traditional provider-side approaches of capital grants, deficit coverage, and purchase of service contracts.

A "pure" user-side subsidy is based on the economic tenet of supply and demand operating in a free-entry, competitive market. By lowering the cost of

service to certain users, it stimulates demand and relies on this increased demand to generate a response in the supply of services. Providers are expected to compete to attract users in order to "earn" their subsidy. Unlike many provider-side subsidy schemes, the transportation providers cannot take user-side subsidies for granted and have an incentive to operate as efficiently as possible. In a totally free market situation, the user-side subsidy should result in the providers offering high quality service at the lowest cost possible. Where public transportation fares are fixed by public regulatory bodies, the user-side subsidy should generate a healthy service-oriented competition among providers.

The user-side subsidy also offers administrative flexibility to program agencies in specifying the uses of subsidy funds: who will be subsidized, at what level, and for what kinds of trips. By limiting the sale and use of tickets to members of a particular client group, identified by means of a special identification card, an agency can limit the use of its funds to trips made by members of that group. Overall program costs can be controlled by limiting the total number of tickets sold. Bounds can also be placed on use by individuals in the client group by limiting the number of tickets sold to each person (possibly coding the tickets with the person's identification number to ensure that tickets are not passed from one individual to another). Some cities have also limited the use of tickets to certain trip purposes, such as shopping or medical trips, though restrictions of this type may be difficult to enforce.

Perhaps the major advantage of user-side subsidies over provider-side subsidies for programs aimed at particular-client groups is that the resources of different funding agencies can be used conveniently without unnecessary duplica-

tion of transportation facilities. It is difficult to limit funds to one particular client group through provider-side subsidies without establishing or contracting for services designed exclusively for that group. Through user-side subsidies, however, a certain level of subsidy can easily be provided for one client group on services which may be available at a different level of subsidy to a second client group and at no subsidy at all to the community at large. Each agency can simply distribute tickets to its own particular client group under conditions consistent with the agency's program objectives. An elderly person might use a ticket to obtain a shared taxi ride at half fare, for example, and share the cab with a disabled person who uses a different ticket and pays no fare at all.

APPLICATIONS OF USER-SIDE SUBSIDIES TO DATE

User-side subsidies have been employed to some degree in public transportation, though few applications have been monitored carefully enough to permit a comprehensive evaluation of the administrative costs and of the quality of services obtained by client groups from the providers. The Medicaid program has been subsidizing taxicab rides for its clients for some time, and several communities have used discretionary funds to institute user-side subsidy schemes for limited mobility groups. More recently, the U.S. Urban Mass Transportation Administration has been developing a series of demonstration projects designed to test the user-side subsidy technique in a variety of institutional and operational settings.

In Los Gatos, California, a small city of 23,735 people, elderly and disabled residents may purchase a maximum of 10 taxicab tickets a month at a cost of 50¢ per ticket. They can use one ticket per trip anywhere within the city limits. For each ticket used the city reimburses the taxi operator \$2.10 out of revenue sharing funds. In order to obviate potential cash flow problems for the taxicab operator, the city pays the operator a monthly advance based on average ticket usage. The program seems to have worked well, though no formal evaluation has been carried out.

In December 1974, the City of Oak Ridge, Tennessee, started selling tickets for 25¢ each to persons 60 years of age and over. Each ticket can be used in lieu of up to \$1.00 of the fare for a taxi ride, with the user paying any re-

mainder over \$1.00. For each ticket turned in by the taxicab operator, the City pays 90¢. On those rides with fares less than 90¢ the taxi operator makes a small profit, while on those over 90¢ he sustains a small loss. The City apparently considers the program among its most successful.

It is important to note that sale of tickets to users at reduced rates does not in itself constitute a user-side subsidy scheme. In El Cajon, California, for example, users buy 50¢ tickets and use them to purchase taxicab rides costing around \$1.50, but the taxicab operator is paid by the City according to the occupied taxicab miles of service provided, rather than according to the trips made by the riders. And in Joplin, Missouri, the City purchases \$5 and \$10 taxicab coupon books from the taxicab operator, and then makes them available to low income residents at a 70 percent discount. Thus the taxi operator gets paid for the tickets whether or not they are actually used. Since the payment to the taxicab operator is not related directly to each person-trip actually made in these examples, these subsidy techniques would fall into the category of provider-side subsidies.

The statewide Transportation Remunerative Incentive Program (TRIP) in West Virginia combines both user-side and provider-side subsidies to improve the mobility of low income elderly persons. The user-side subsidy portion enables low income elderly to purchase \$8.00 worth of tickets monthly on a sliding fee scale dependent on income. Agreements have been worked out with public and private transportation providers across the state including transit and taxicab operators, Greyhound bus lines, and AMTRAK rail service to accept these tickets at face value as payment of fares. The provider-side subsidies will cover capital and operating expenses for certain providers. TRIP is being funded

jointly by the Department of Transportation and the Department of Health, Education, and Welfare.

A user-side subsidy program was adopted in May of 1975 by the State of New Jersey to allow elderly and handicapped persons to travel for half fare during off-peak periods on intra-state bus and rail lines. Ticket books containing 50 tickets are distributed free to eligible persons through banks. When making a trip, the user gives the provider the half fare in cash along with one ticket. The provider then submits the ticket to the State for payment of the remainder of the fare.

Demonstration projects funded by the Urban Mass Transportation Administration (UMTA) have been designed to permit a comprehensive evaluation of the user-side subsidy technique as applied to public transportation. The first demonstration project, initiated in December of 1975, provides shared taxi services at reduced fares for the handicapped and elderly in the City of Danville, Illinois (population 45,000). An eligible user pays 25 percent of the taxi fare in cash, and signs a voucher for the remainder of the fare which the provider subsequently receives from the City.

Of the 7,500 residents of Danville who are eligible for the user-side subsidy program, roughly one-third have registered with the city to obtain identification cards. (About half of those receiving cards have yet to use them -- apparently keeping them for occasional or emergency use only.) A maximum of \$20 worth of taxi service per month is permitted any one individual under the program, and the City accumulates costs incurred by each eligible person to check for overuse. Response to the scheme has exceeded expectations, to the

point where over 20 percent of the ridership on the city's taxi system is currently supported by the user-side subsidy program. Service levels have been high, and the two taxicab providers have placed additional vehicles in service as the need has arisen. There have been no serious administrative problems -- payment to the providers by the City appears to proceed smoothly, and there has been no evidence of fraud. A detailed evaluation of the project currently being conducted will be available as a guide to other cities on administrative procedures, costs, service levels, and ridership.

Two other UMTA demonstration projects are currently under development in somewhat larger cities. In Montgomery, Alabama (population 133,471), elderly and handicapped residents will be able to use shared-ride taxi or conventional bus services for half-fare through a user-side subsidy program. Four large taxi companies and several smaller operators are expected to participate in the program, along with the publicly-owned Montgomery Area Transit System. For shared taxi rides, eligible users will pay half the fare in cash and sign a voucher for the remainder -- the procedure used in Danville. For bus rides, however, the users will pay half the fare in cash, and each half fare trip will be recorded by the driver. The transit system will then receive the remainder of the fares from the City based on the trip records maintained by the bus drivers. Special efforts are being made by the planning staff in Montgomery to involve several social agencies in the program, with an eye to identifying and coordinating funding to support the program after the demonstration period.

An UMTA demonstration project in Lawrence, Massachusetts (population 66,915), will employ transportation tickets as a user-side subsidy mechanism to provide reduced fares to the elderly and handicapped on shared taxi and privately-owned

transit services. Books of 25¢ tickets will be sold at half price to the eligible users, with a monthly limit by individual. Users will be able to obtain a bus ride for one ticket (costing the user 12.5¢) and a shared taxi ride for four or five tickets, depending on the trip length. The taxi and bus operators will submit used tickets to the City for payment. This project in Lawrence will provide an opportunity for examination of the administrative effort associated with the distribution and collection of tickets -- a procedure which Danville and Montgomery rejected in favor of the Voucher scheme.

User-side subsidy applications to date suggest a favorable prognosis for this subsidy approach in public transportation. Service levels for the client group have been good, and administrative requirements have not been too burdensome. Furthermore, it has been possible to involve existing transportation providers in offering subsidized services in a way which preserves the level of competition between them. All the providers have an opportunity to serve the client group, and the city is not totally dependent on any one provider. Demonstration projects currently planned or underway will permit a detailed evaluation of this approach under a variety of conditions when results become available.

POTENTIAL APPLICATIONS OF USER-SIDE SUBSIDIES

Applications of the user-side subsidy to date in public transportation have been concerned primarily with providing reduced fares for elderly and handicapped groups on shared taxi and fixed route bus services. A number of other promising applications, which apparently have not yet been tried, will be discussed briefly in this section.

Serving the Semi-ambulatory and the Wheelchair-bound

One sub-group of the transportation disadvantaged not provided for to date in user-side subsidy projects is that of persons requiring special assistance or specially equipped vehicles, such as semi-ambulatory persons and those confined to wheelchairs. Regulations recently issued by the U.S. Department of Transportation require that the transportation needs of these persons be addressed. Transportation improvement plans submitted to UMTA after September 30, 1976 are required to contain " . . . projects or project elements designed to benefit elderly and handicapped persons, specifically including wheelchair users and those with semi-ambulatory capabilities . . . " ^{10/} The guidelines include a few examples of efforts which would satisfy the requirements, one of which employs the user-side subsidy approach:

"A system, of any design, that would assure that every wheelchair user or semi-ambulatory person in the urbanized area would have public transportation available if requested for 10 round trips per week at fares comparable to those which are charged on standard transit buses for trips of similar length, within the service area of the public transportation authority. The system could, for example, provide trip coupons to individuals who would then purchase the needed service." ^{11/}

^{10/} U.S. Department of Transportation (1976).

^{11/} Ibid.

Surveys taken recently in a number of states have revealed a surprisingly large number of independent providers equipped to serve the semi-ambulatory and the wheelchair-bound. Some taxicab operators have a few specially equipped vehicles in their fleets, and a number of private operators have fleets of such vehicles devoted exclusively to serving client groups with special needs. The major problem for client groups using these services is that, because costs to the providers are high, fares are usually very high (perhaps four or five times the prevailing taxi fares). The user-side subsidy approach could reduce the costs to the users while ensuring that the providers are adequately compensated, and would encourage providers to tailor their services to the needs of the client group. In many areas this approach would obviate the need for establishing separate transportation systems exclusively for client groups with special needs.

Coordinating Several Funding Sources

In cities where several different agencies have transportation assistance funds to disburse, the user-side subsidy approach provides a means for ensuring efficient and effective use of each agency's resources. One central office could be established to administer the user-side subsidy program for public transportation. This office would be responsible for issuing numbered transportation tickets to the various funding agencies. The agencies would then make the tickets available to their own client groups under prices and conditions consistent with their particular program objectives. Members of the client groups would use the tickets to purchase transportation services from the providers of their choice, and the providers would turn the used tickets in to the central office for reimbursement. Finally, the central office would bill each agency for those used tickets which the agency had

been responsible for distributing.

Channeling all of the transportation tickets and transportation assistance funding through one central office would permit a variety of cost-sharing arrangements between different funding agencies. As part of a city-wide public transportation program, for example, a city might wish to commit general funds to paying half of the fare for bus services for all city residents. A senior citizens home might wish to cover the remainder of the fare for its client group. The central office could develop the appropriate billings to the city and the senior citizens home based on the used transportation tickets turned in by the providers.

A wide range of providers could be involved in such a coordinated user-side subsidy program: private taxicab and limousine operators, conventional transit systems, specialized profit and non-profit providers with vehicles equipped for the semi-ambulatory and wheelchair-bound, and even private individuals operating in volunteer capacities. Rates of fare and service standards would be established for the different providers, and might vary from inexpensive volunteer services available only infrequently to quite expensive and high quality shared taxi services. Users could be given a certain budget of reduced rate tickets per month and be free to use them in whatever manner best met their needs. Some users such as the wheelchair-bound who need the more expensive services with specially equipped vehicles might be given larger budgets than those able to use conventional services.

Combining Provider-side and User-side Subsidies

Some of the major transportation assistance programs currently available, such as the UMTA Section 3 and Section 16(b)(2) programs, earmark funds for particular types of providers or types of transportation expenditures in ways which preclude the disbursement of these funds through user-side subsidy mechanisms. Earmarking funds for capital equipment is common in transportation assistance programs, for example. While the wisdom of this kind of earmarking is somewhat doubtful (as will be discussed later), from a practical point of view cities are likely to have to deal with it as best they can for at least the next few years.

One approach which offers some prospects for avoiding the major inefficiencies of earmarking by capital equipment is to combine this type of provider-side subsidy with a user-side subsidy scheme. A city could establish a central vehicle fleet with the aid of UMTA, state, or other funds, and lease the vehicles at nominal rates to providers operating in the city. Agreements could be developed along the lines used by the large car rental and leasing companies such as Hertz and Avis, with the city being the lessor and the providers the lessees. Vehicles could be made available to any and all providers willing to meet the city's regulatory requirements.

Making capital equipment available to providers at nominal rates would reduce their costs to some extent and permit them to operate with somewhat lower fares. Should these fares still prove too high for some purposes, a user-side subsidy technique could be employed to permit various funding agencies to subsidize ridership for their particular client groups.

One particular application of the user-side subsidy in combination with provider-side subsidies might be of interest in large metropolitan areas with regional transit systems supported by a number of different jurisdictions. The prevailing fare structure might be publicly supported for all residents of the region (as is common) by provider-side subsidies in the form of capital grants and additional subsidy funds to cover operating deficits. Suppose one jurisdiction in the region wished to institute a further fare reduction for elderly and handicapped residents, but that other jurisdictions were not willing to support the idea regionwide. The one jurisdiction could institute a user-side subsidy scheme for its elderly and handicapped residents by making reduced rate tickets available for use on the regional transit system. The transit management could then obtain reimbursement for the tickets from the jurisdiction, without having to involve other jurisdictions in the scheme at all. Such an approach would be a convenient way of giving individual jurisdictions some discretion over the use of their subsidy funds without getting involved in highly complex "deficit-splitting" formulas.

Stimulating New Services

The user-side subsidy concept is a relatively simple one where the aim is to offer reduced fares to certain client groups on existing services. Suppose, however, that a city wished to provide low fares on scheduled, fixed route services for all city residents, but that no fixed route services currently existed in the city. Could the user-side subsidy technique be applied in this situation? In principle it could, though we know of no cities which have taken this approach.

The city could announce that tickets would be available to all residents at 25¢ each, say, for use on fixed route services, and that providers who offered such services could redeem used tickets from the city for some higher value such as 50 or 60¢. If the ticket redemption value were set high enough, some transportation providers in the city or in nearby cities could be expected to show interest in offering the services. Agreements could be developed between the city and responsible providers on routes and schedules to be offered, and the city could control service coverage and fare levels through the redemption value of the tickets.

The potential of the user-side subsidy as a means of stimulating new services is very uncertain at present. It may be that the administrative complexity involved would more than offset the potential advantages of this approach over traditional provider-side subsidy schemes. The idea seems to have enough promise, however, to warrant a test in a city seeking to establish new public transportation services.

BARRIERS TO EMPLOYING USER-SIDE SUBSIDIES

An assessment of experience to date with user-side subsidies and a review of promising new applications together argue for wider application of this technique for subsidizing public transportation services. Where client groups from several different assistance programs can use the same public transportation services and facilities, user-side subsidy techniques provide a convenient means for pooling resources from the different programs and avoiding unnecessary duplication of services. This feature of the user-side subsidy technique is of particular interest at present, when different government agencies are seeking ways to coordinate their objectives and resources. There are a number of legislative and administrative barriers, however, which inhibit wider application of user-side subsidy techniques and generally militate against efficient use of transportation assistance funds.

Programs such as that administered under Section 16(b)(2) of the Urban Mass Transportation Act which earmark funds for capital expenses preclude the delivery of assistance through user-side subsidy techniques -- all of the assistance must be delivered in the form of vehicles or other capital equipment. This kind of earmarking is usually justified on the grounds that allowing funds to be used for operating assistance invites inefficient operating practices and increased labor costs. It can equally well be argued, however, that capital assistance encourages over-expenditure on new capital equipment and neglect of preventive maintenance. And since capital assistance allows more state and local funds and farebox revenues to be used for operating expenses, operating inefficiency and labor cost escalation are still possible outcomes. In the case of programs

with earmarking by client group, restriction of funds to capital assistance encourages the establishment of separate transportation facilities and services for each group; buses purchased for use by the handicapped under a certain income level may remain idle while a separate fleet serves a broader group of elderly and handicapped persons, for example.

Of the almost \$12 billion provided for mass transportation over the 6-year period through 1980 under the Urban Mass Transportation Act, roughly two-thirds is earmarked by the Act for capital expenditures under Section 3, while the remaining one-third can be used under Section 5 for either capital or operating expenditures. Interestingly enough, the administration in mid-1976 has been attempting to limit the use of half of the Section 5 funds to capital expenditures, citing the familiar concerns about operating inefficiencies and labor cost escalation. Continuation of this policy of encouraging vehicle purchases but withholding operating assistance raises the spectre of numerous large and small agencies around the country with shiny new vehicles which they cannot afford to operate. In attempting to guard against operating inefficiency and labor costs, the capital restriction is clearly creating severe problems of its own. In our judgment, it is time to re-examine the wisdom of earmarking funds for capital assistance, particularly for programs aimed at certain client groups such as the elderly and handicapped.

Earmarking of transportation assistance funds by provider-type is also a troublesome constraint on efficiency in service provision. The UMTA Section 16(b)(2) program which earmarks funds for capital equipment as discussed above also earmarks funds for a particular group of providers; non-profit agencies. The language of the Urban Mass Transportation Act appears to sanction 16(b)(2).

expenditures only after existing providers such as busses and taxicab operators have been found unable to provide adequate services for the elderly and handicapped. In practice, however, funds have been disbursed under 16(b)(2) directly to the states for use in assisting non-profit agencies without adequate investigation of the capabilities of existing providers.

The expenditure of over \$20 million in fiscal year 1975 on vehicles for non-profit agencies brought cries of protest from taxicab and transit operators who claimed that they had not been given an opportunity to offer subsidized services to the elderly and handicapped, and that the newly outfitted non-profits were cutting into existing taxicab and transit business. Several cases have been reported of non-profit agencies receiving vehicles which they were unable to maintain and operate, while existing taxicab and transit operators willing and able to offer service to the elderly and handicapped were denied access to public financial assistance. Clearly, this kind of provider-side subsidy earmarked for non-profit providers leads to inefficiency in service provision, and may well jeopardize the financial viability of one group of providers especially suited to serving the elderly and handicapped; the taxicab operators. The user-side subsidy technique, on the other hand, would give all the existing and potential providers, profit and non-profit, an opportunity to offer subsidized service to the elderly and handicapped.

If it is accepted that earmarking of funds for one provider group leads to inefficiency in service provision, one may ask why so much assistance has been disbursed in this way over the last few years, and why in particular the states proceeded with so much 16(b)(2) assistance to non-profit agencies in fiscal year 1975. Even though these funds could not have been disbursed through user-

side subsidies because of earmarking for capital expenses, could they not have been used to purchase equipment for lease to private bus, taxicab and limousine providers already serving the elderly and handicapped? The answer to this question is that it is much easier to disburse funds to non-profit agencies under 16(b)(2) than to assist other providers, because section 16(b)(2) projects can be funded without the labor protection assurances usually required under section 13(c) of the Act.

Section 13(c) specifies that the Secretary of Labor must be satisfied that for each project funded under the Act (except those funded under section 16(b)(2)) arrangements have been made "to protect the interests of employees affected by such assistance."^{12/} The development of such arrangements often involves complex labor negotiations which can delay and even preclude funding of particular projects. Thus the administrative hurdle of 13(c) labor protection currently encourages the disbursement of funds under section 16(b)(2), which contains the two types of earmarking most detrimental to efficient service provision; by capital expenses, and by provider-type.

One section of the Urban Mass Transportation Act which offers significant hope for efficient service provision is section 5. As discussed earlier, this section provides funds which can be used to cover capital or operating expenses. These funds could presumably be disbursed through a user-side subsidy technique to support low fares for any services which qualify as "mass transportation;" shared-ride taxicab services as well as fixed route transit services, for example. Though no section 5 funds have been used to date to fund user-side

^{12/} U.S. Department of Transportation (1975).

subsidy projects, at least one application is pending and seems likely to be funded within a few months.

The above discussion identifies two kinds of earmarking of transportation funds as the major barriers to efficient service provision; by capital expenses, and by provider type. One other practical impediment to efficiency apparently arises through the "turf protection" attitude taken by some program agencies when pooling of resources with other agencies is suggested:

"Frequently attitudinal barriers among human resources agency staff at the service delivery level grow in the name of target group 'advocacy' (or 'federal restrictiveness') when, in truth, selfishness is the real cause of a transportation provider's unwillingness to share vehicle space for a fee."^{13/}

For some local agencies, the desire to have separate transportation services for their own client groups apparently outweighs concern for efficient use of program funds. To overcome this problem, those authorizing and administering transportation assistance programs at the state and federal levels may have to develop regulations which require local agencies to take advantage of worthwhile opportunities to pool their resources.

Programs which earmark funds by client group or by transportation service type present no inherent barriers to efficient service provision, particularly where the user-side subsidy technique is used. (Whether or not such earmarking is consistent with program objectives is open to question, of course, and must be debated by those responsible for designing the programs in the first place.) It seems likely that a variety of federal, state, and local agencies in the U.S. will continue to assist different client groups to obtain various types

^{13/} U.S. Department of Health, Education, and Welfare (1976).

of transportation services. The concern of the present paper is that these services be provided in an efficient manner. If agencies administering the programs have the option of disbursing funds through user-side subsidies, they will be able to take advantage of existing transportation providers when these providers can meet the needs of their client groups efficiently. When the agencies can best serve their client groups by establishing a separate transportation service (often the case when volunteer services are available, for example), they should, of course, still be free to do so.

CONCLUSION

Where local agencies are able to use transportation assistance funds to support lower fares on existing services, the user-side subsidy technique has much to recommend it. All existing (and potential) providers can have an opportunity to serve the client group, and those which provide the best service to particular users will presumably be rewarded with increased patronage. The business generated by the client groups of different agencies should contribute to the financial health of the providers and result in improved service for all the traveling public in the community.

Experience with the user-side subsidy in a number of small communities suggests that administrative costs are not particularly burdensome. Further, with the relatively small number of providers involved to date there has been no indication of fraud or of other abuses. It has been possible to control costs of the user-side subsidy programs by varying the eligibility criteria for the client group, the fraction of the total fare to be paid by the user, and the maximum subsidy payment available to one individual per month. Further demonstration projects under development by UMTA's Service and Methods Demonstration Program will test the user-side subsidy technique in larger communities under a variety of different institutional arrangements, and should provide useful information for agencies administering transportation assistance programs.

Programs which earmark funds by type of transportation expenses (capital versus operating, for example) or by provider type (profit versus non-profit)

discourage or prohibit local agencies from adopting the user-side subsidy approach, and often lead the agencies to duplicate existing transportation services at high cost. Despite these legislative and administrative impediments to wider application of user-side subsidies, a great many transportation assistance programs currently do have the flexibility to use this technique. Hopefully, agencies administering transportation assistance programs will give serious consideration to this approach in designing and modifying the delivery systems for their programs.

REFERENCES

1. Kirby, Ronald F. (1975), "Paratransit: A State-of-the-Art Overview," in Paratransit, Transportation Research Board Special Report 164, Washington, D.C.: National Academy of Sciences.
2. Kirby, R.F., and McGillivray, R.G. (1975), "Alternative Subsidy Techniques for Urban Public Transportation," Working Paper 5050-4-1, Washington, D.C.: The Urban Institute.
3. Tye, William B. (1973), "The Capital Grant as a Subsidy Device: The Case Study of Urban Mass Transportation," in U.S. Congress Joint Economic Committee, The Economics of Federal Subsidy Programs, Part 6 -- Transportation Subsidies, February 26, 1973, Washington, D.C.: U.S. Government Printing Office.
4. U.S. House of Representatives, Committee on Appropriations (1976), Department of Transportation and Related Agencies Appropriations for 1977, Washington, D.C.: U.S. Government Printing Office.
5. U.S. Department of Health, Education, and Welfare (1976), Transportation Authorities in Federal Human Services Programs, Atlanta, Ga.: Office of the Regional Director.
6. U.S. Department of Transportation (1975), Urban Mass Transportation Act of 1964 and Related Laws, Washington, D.C.: U.S. Department of Transportation.
7. U.S. Department of Transportation (1976), "Transportation for Elderly and Handicapped Persons," Federal Register, Vol. 41, No. 85 -- Friday, April 30, 1976.