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16. Abstract

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SOCIAL SERVICE AGENCY TRANSPORTATION SERVICES:

Current Operations and the Potential for the Increased Involvement of the Taxi Industry

by

Walter L. Cox
and
Sandra Rosenbloom

Research Report Number 1053-1F

An Analysis of Methods to More Effectively Utilize the Taxi Industry in Improving Public Transportation in Texas

Technical Study No. 3-10-76-1053

conducted for

Texas
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in cooperation with the
U. S. Department of Transportation
Urban Mass Transportation Administration

by the

CENTER FOR HIGHWAY RESEARCH
THE UNIVERSITY OF TEXAS AT AUSTIN

August 1977

The contents of this report reflect the views of the authors, who are responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the Urban Mass Transportation Administration. This report does not constitute a standard, specification, or regulation.

PREFACE

This work was sponsored by the State Department of Highways and Public Transportation and prepared in cooperation with the U. S. Department of Transportation Urban Mass Transportation Administration. It was undertaken by a graduate class in The University of Texas at Austin Graduate Program in Community and Regional Planning under the direction of Dr. Sandra Rosenbloom. Walter Cox was the project manager.

The student members of the team were Robert Peters, Mary Ann Hauber, and Ted Lavretta; much of the data presented in this report would not have been available without their hard work and perseverence.

During the preparation of this report the study team interviewed more than fifty individuals working for a variety of state and local government and non-governmental agencies. While it is not possible to individually thank each of these individuals, we wish to extend our grateful acknowledgment to these people, whom we found to be highly committed to the interests of the people they serve.

Walter L. Cox
Sandra Rosenbloom

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ABSTRACT

This study analyzed the current transportation operations of social service agencies in three prototype communities in Texas: urban, rural, and rural with urban interface. The study was designed to identify and analyze the costs of direct provision of client transportation by social service agencies and to develop comparative cost indices for the same or similar classes of trips if delivered by alternative providers, including taxi operators, transit systems, and non-profit providers. Common classes of trips were identified, categorized by major operational characteristics and two sets of cost data were developed for trips directly provided by social service agencies to their own clients: actual costs and perceived costs. Actual cost figures, including expenses borne externally or through grants, were developed to allow policymakers to effectively evaluate the costs of direct transportation provision by social service agencies. Recognizing that Federal and state subsidies existed and would be used, perceived cost figures were developed to allow social service agencies to compare the advantages of alternative service provision to their out-of-pocket costs. While no one provider was found to be cost-effective for all types of client trips, it was found that some social service agencies were operating inefficient or ineffective transportation systems and should actively consider an alternative provider.

SUMMARY

This report details the findings of a study designed to identify and analyze the costs of direct provision of client transportation by social service agencies in Texas and to evaluate the cost-effectiveness of alternative providers, including taxi operators, transit systems, and non-profit providers, providing the same classes of client trips. The study team found that most social service agencies did not know the impact of transportation deficiencies on their clients' utilization of the social or medical service(s) provided and had no way to gauge how important a service transportation was. Most social service agencies directly providing transportation to their clients have only vague ideas of the actual costs of doing so, and little way to compare their costs to those of alternative providers. There was a great deal of functional and geographic overlap and duplication of service in some communities and total lack of service in other communities; social service agencies had little incentive or technical ability to effectively coordinate their activities with other social service agencies providing transportation services or to negotiate contracts with alternative providers.

Social service agencies need guidance in transportation services and in bookkeeping and accounting techniques. Social service agencies need to identify the transportation needs of their clients and evaluate the importance and value of the provision of transportation services to these clients. The study team found that Federal and state funding incentives to social service agencies encourage them to continue to operate inefficiently.

IMPLEMENTATION STATEMENT

This study showed that many social service agencies do not know the value of the transportation they provide to their clients and the impact on their clients' utilization of social services, that they do not know or fully understand the actual costs of direct provision of transportation to their clients, and that they do not desire or have the skill to coordinate their transportation activities with other social service agencies or alternative providers. Because the inefficient operation of social service transportation systems may be severely damaging the taxi industry, and because all public funds ought to be expended in the most cost-effective manner, it is important that the State Department of Highways and Public Transportation take the lead in providing assistance and guidance to social service agencies needing client transportation services. In order to accomplish this goal, it is recommended that:

- -A uniform accounting system for small scale or social service transportation systems be developed and all social service agencies encouraged to adopt it.
- -All social service agencies providing client transportation be required to calculate their full cost in doing so and to evaluate the cost of alternative provision before they receive any state assistance.
- -Social service agencies perform client needs assessments to determine the importance of transportation in their clients' utilization of the social and medical services provided.

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LIST OF ABBREVIATIONS

AAA	-	Area Agency on Aging
AOA	-	U. S. Administration on Aging
CAA	-	Community Action Agency
COG	-	Council of Governments
DOT	-	U. S. Department of Transportation
DHR	-	Texas Department of Health Resources
DHPT	-	Texas State Department of Highways and Public Transportation
DPW	-	Texas Department of Public Welfare
FHWA	-	Federal Highway Administration
HEW	-	U. S. Department of Health, Education, and Welfare
MHMR	-	Texas Department of Mental Health/Mental Retardation
MPO	-	Metropolitan Planning Organization
NC-DCA	-	Neighborhood Centers - Day Care Association (Houston)
SSA	-	social service agency
TDCA	-	Texas Department of Community Affairs
TRC	-	Texas Rehabilitation Commission
UMTA	-	Urban Mass Transportation Administration

CHAPTER 1. INTRODUCTION

The taxicab industry is a vital component of the total transportation system in Texas. In 1975, 145 Texas communities were being served by one or more taxi operations; in the majority of these communities the taxi provided the only alternative to the private car both for those citizens who could choose between these modes and for those citizens who had no other transportation choice at all. Recently a number of social service agencies in Texas have begun to provide limited transportation services and subsidies to some of their clients who do not have direct access to cars. In many cases, aided by an array of Federal funding programs and grants, these social service agencies have bought vehicles and have begun to operate their own transportation systems. In Texas the situation has been complicated by a Federal court ruling that the Department of Public Welfare must offer its Medicaid (Title XIX) clients viable transportation services on a regular basis. In many communities the major users of taxis are the disadvantaged who are served by these social service agencies; not surprisingly, there are indications that these social service transportation systems are adversely affecting taxi operations in many areas. This situation raises a number of serious policy questions.

In most communities taxis provide transportation for the entire range of trips taken by the disadvantaged and car-less. The transportation provided by social service agency transportation systems is generally limited to trips directly related to the service or services provided by that agency. Clients still require mobility for their other needs. Should the competition provided by social service transportation systems cause taxi operations in any community to go out of business or raise their rates, the disadvantaged will suffer drastic reductions in their overall mobility. A former administrator of the Urban Mass Transportation Administration recently noted:

> The private taxi industry now serves more revenue passengers on an annual basis than all the rapid transit systems. I can imagine no worse eventuality for the transit authorities than the disappearance of the private taxi company and the resulting pressure on public

> authorities to provide similar kinds of service with public subsidies. There is simply not enough public financing available to support public transit, if authorities must also serve the population and the trip purposes that are now served by the taxi industry.

A second major concern is that many of the newly inaugurated social service transportation systems may be extremely inefficient and costly. Because each agency generally serves only its own clients, its vehicles and driver personnel may be underutilized for significant portions of the day. Moreover, social service agencies generally do not have the experience or expertise to operate their transportation systems efficiently. The funding of these systems and the minimal evaluation processes involved create little incentive for any agency to increase the utilization of its system (perhaps by coordinating with other agencies) or to reduce operating or vehicle costs. The underutilization of such systems and the poor operating procedures followed by many agencies may create ridership expenses far in excess of the rate that would be charged by the taxi operator in the same community for the same number and kind of trips. Where that is so, inevitable questions about the most efficient ways to spend public money arise.

There is a third issue that must be identified, but, because it is a policy concern, it must be addressed directly be elected public officials. There are serious questions of the propriety of funding public agencies to compete with private industry when the public enterprises would not be competitive in the absence of government subsidies. Even when social service transportation systems can offer trips at the same rates as a taxi operator, it is often because they receive direct and indirect subsidies which taxi operations do not receive. Many social service systems receive part or all of their vehicle acquisition costs through state and Federal grant programs and some receive free garaging and reduced maintenance charges at public facilities. Often administrative and overhead costs are "hidden" in overall departmental or agency budgets. In response to this problem, the Urban Mass Transportation Administration (UMTA) has recently taken the position that it will not fund public agencies to provide transportation when such services are available competitively from a private provider; the costs presented for comparison must indicate some of the more common hidden subsidies. However, the majority of social service agencies receive their funding from non-transportation agencies and the UMTA policy may have little impact on their operation.

The study reported on here was funded by the Texas State Department of Highways and Public Transportation in July 1976. It was designed to help public policymakers in Texas more effectively utilize the taxi industry in improving the entire transportation system in Texas. In order not to overlap with another major study funded by the State Department of Highways and Public Transportation (3-10-76-1051), and because of the limited resources available, this study dealt specifically with the relationship of taxi service to the particular needs of the clients of social service agencies. The study was designed to assist

- -individual social service agencies seeking to provide transportation to their clients;
- -the taxi industry, seeking to maintain its market and become involved in social service agency transportation programs;
- -the State Department of Highways and Public Transportation, seeking to develop criteria on which to base judgements of agency requests for transportation funding; and
- -metropolitan A-95 clearing houses and Metropolitan Planning Organizations seeking to implement UMTA policy requiring participation of private transit providers and seeking criteria on which to evaluate requests for Federal financial assistance.

The research team sought to identify the number, the kinds, and the costs of trips commonly provided by social service agencies and the physical and trip characteristics of individuals or groups of clients who either commonly received or required transportation in order to utilize the social services provided. Obviously different geographic, population, and even climatic conditions influence both the types of trip provided by SSAs and the characteristics of the riders. In order to identify the full range of variables, the research team investigated three areas of Texas that were representative of the range of conditions found throughout the state - rural, urban, and rural/urban interface. The research team attempted to interview a spectrum of social service agencies and transportation providers in each community without attempting to identify or interview all agencies and providers in the community. A special attempt was made to identify and contact social service agencies that did or could contract with alternative providers for transportation services as well as those agencies that provided transportation services to their clients themselves. The community studies were augmented by interviews with and analyses of transportation providers and interesting contract arrangements throughout the state.

It was expected that a detailed breakdown of trip types and costs would respond to the needs of all four groups listed above; it would

- -allow social service agencies to compare their costs with those offered by taxi operators and other alternative providers;
- -give taxi operators a clearer idea of the types of trips they could and could not provide at lower cost than SSA's in their communities; and
- -give MPO's, A-95 clearinghouses, and state and Federal funding agencies a clearer view of the trips that could or should be provided by contracts with taxi operators rather than in direct provision by SSA's utilizing state and Federal subsidies.

The remainder of this report is presented in four chapters. Chapter 2 describes the research methodology used by the study team. Chapter 3 gives the findings from three in-depth case studies and synthesizes the data into a general classification system of client trips. The third chapter then compares and evaluates the costs and methods of alternative provision of client transportation services. Chapter 4 presents policy recommendations and recommended research. The appendices of this report present the comprehensive Austin case study, a compendium of taxicab regulations in localities throughout Texas, and an annotated bibliography of selected reference works.

CHAPTER 2. PROJECT METHODOLOGY

This project was funded by the Texas State Department of Highways and Public Transportation as a small-scale analysis of the potential role of the taxi in meeting transportation needs in Texas. The study research and evaluation were undertaken in several stages. The preliminary stage involved a comprehensive literature review; publications both on transportation and on social service systems were reviewed. There are only a small number of publications of any type which treat the problem of coordinating transportation and the delivery of social services; the major literature on this subject was annotated and those annotations appear in Appendix C. The literature search gave the research team a clearer idea of the kinds of travel and ridership characteristics and of cost and operating figures that would have to be gathered from case studies and on-site visits.

The second stage of the research involved empirical data collection in case communities and in interviews with public and private transportation providers and public officials throughout the state. Three case studies were undertaken, one in an area with significant urban-rural interactions, one in a highly urbanized area, and one in an area that is totally rural and decentralized. Austin represents the first case, Fort Worth the second, and the Deep East Texas Region (Jasper, Lufkin, and Nacogdoches) the third. The case communities were chosen to represent the range of transportation needs and social service delivery systems that might be found in Texas; none of the studies was designed to identify all transportation providers in a community or to identify or evaluate the specific institutional or organizational relationships found in a particular community.

Because the research team was not familiar with the kind of information and records that social service agencies would have, nor the kinds of questions that would be understood, the first case study in Austin was conducted in far greater depth than were subsequent studies. Again, the emphasis was not on an evaluation of conditions particular to Austin; the study was designed to give the study team a better idea of which agencies were more

likely to provide client transportation, what kinds of data they had on client transportation and transportation costs, and what questions were most likely to elicit needed information. Because a wealth of important material was collected in Austin which is only marginally relevant to this study, a special Austin case study has been compiled. It appears in Appendix A.

Originally the study team anticipated using the 1975 State Department of Highways and Public Transportation survey of social service transportation providers to identify all relevant transportation providers in each case community. However, experience in Austin showed that this survey was incomplete. In addition, the DHPT survey did not identify agencies that might be involved in providing direct subsidies to clients or in contractual arrangements for transportation provision. Therefore, it was necessary for the study team to undertake a wide canvassing operation in each community to first identify as many relevant agencies as possible so that they could be interviewed in greater depth. Because most agencies kept poor records and did not consider transportation to be one of their major services, the study team found both the canvassing and the interviewing process to be difficult. Questionnaires and interviewing techniques were modified several times based on the Austin experience. The canvassing operations in the second and third case communities were also streamlined based on techniques learned in Austin.

In each community the research team sought detailed information on the number, cost, and type of client trips then being provided by social service agencies and comparable trip costs for alternative providers. The study was designed to address a number of questions that were common to all three communities in spite of differences in the scale and type of service delivery.

- -Who is providing transportation services, how many clients are being served, and what is the cost?
- -What are the advantages and problems of agency-provided transportation service?
- -Under what conditions would contracting for transportation services increase efficiency and/or service quality?
- -With whom should a SSA contract if it does not directly provide transportation services itself?

The research team first sought to identify as many social service agencies as possible in each case community that either provided transportation services or subsidies to their clients or were contemplating doing so in

the future. The study team then concentrated on the identified social service agencies that might have either the need or the resources to actively consider alternative forms of service provision, such as direct contract arrangements with taxi operators or other transportation providers. Therefore the team sought to target specific agencies that had the potential to contract with other transportation providers for the delivery of transportation services to their clients. In general, a potential contractee was identified as

- -any SSA that was currently providing non-emergency transportation services in purchased or donated vehicles and was operating above a minimum level of passenger trips per day/month/year; or
- -any SSA that was considering the provision of a regularized transportation system for its clients, subject to the conditions imposed on the level of service stated above.

This generally included those agencies that were providing transportation to their clients on a fairly regular, non-emergency basis in special vans or buses and not in staff or volunteer cars. Agencies which were not considered to be potential contractees included

- -any SSA in which the provision of the service is a functional aspect of the agency's comprehensive services and not just a means of localized transport; and
- -any SSA currently providing small-scale services in staff or volunteer vehicles.

This generally excluded agencies expending few resources on client transportation or doing so only on rare occasions, as well as agencies, such as Alcoholics Anonymous, which provide transportation as an integral part of their total service. Also generally excluded were church groups providing transportation to parishoners for Sunday church services only.

Unfortunately, most of the detailed cost and ridership information sought either did not exist or could not be made available to the research team in a usable format; the implications of this significant problem are discussed at length throughout the remainder of this report. While there were significant exceptions, most SSAs did not keep detailed and complete records of the trip characteristics of their clients, often because such information was not considered relevant to the major social service function of the agency. Cost data were only slightly more complete. Most SSAs could not break out significant operating costs from their overall budgets and, moreover, did not

understand the reasons why such cost breakdowns were necessary. When SSA's did keep data on either trip characteristics or trip costs, their indices and classification schemes were not very detailed and rarely were in a form that had meaning for more traditional transportation providers. In addition to the lack of good data, agency cost information often did not reflect a number of direct or indirect subsidies such as donated vehicles or free maintenance.

Major transit, taxi and nonprofit transportation providers in Austin, Fort Worth, and Deep East Texas and throughout the state were also interviewed so that a sufficiently large data base on alternative costs of service provision would exist. This state-wide interviewing of transportation providers also identified several contractual relationships between taxi operators and social service agencies, which added to the limited cost data available.

Incomplete data and the impact of Federal assistance programs made it difficult to make clear-cut comparisons between the costs of alternative provision of social service trips. The team was able to delineate general classes of riders and trip types and these classifications were used to develop comparable cost figures. The data were sufficient to allow the team to develop a series of criteria which all participants can use to judge the comparability of taxi and other transportation providers in individual and specific contexts.

At the same time primary data collection was underway, an attempt was made to determine the potential impact of local taxicab regulations on the provision of contract taxi services to social service agencies. A questionnaire was mailed to 75 cities in Texas with a population over fifteen thousand requesting detailed information on the local restrictions, if any, on contract taxi service, group riding, and fares calculated at other than meter rates (features seen as necessary to the full involvement of taxi operations in social service agency transportation activity). The return rate, after one follow-up letter, was 43 percent or 32 respondents. Unfortunately, many of the respondents had never grappled with the problems addressed and did not understand the implications of the questions. In many cases, it was impossible to determine exactly what a respondent meant without a follow-up letter or telephone call; the available time and financial resources were insufficient for such follow-up activity. The responses that were received and understood were tabulated and are presented in Appendix B. The problems of

restrictive local regulations were addressed by several of the taxi operators interviewed and their experiences and opinions appear in this analysis where applicable. The research team still believes that this is an important topic deserving in-depth study and has recommended additional research in this area (see Chapter 4).

Although information gathered from most social service agencies and some transportation providers was too sketchy or impressionistic to develop the kind of hard and fast guidelines first sought, some compilations and evaluations of ridership characteristics and cost projections were possible. Once these general compilations were obtained, a number of conclusions were drawn and policy recommendations were developed. The research also graphically illustrated a number of significant research needs.

The study team identified specific areas in need of additional research and made detailed policy recommendations for action by the Governor and relevant state agencies based on the findings of this study; they are presented in Chapter 4.

CHAPTER 3. FINDINGS

CASE STUDIES

Three different communities were chosen to represent the wide range and the differences in scale in the delivery both of transportation services and of social services throughout Texas. Fort Worth was chosen as representative of client needs and trip characteristics in urban areas in Texas. The Fort Worth case study excluded an analysis of social service trips provided beyond Tarrant County as these trips were not urban in nature. Austin was chosen to represent areas in Texas with an urban-rural interface, generally representing service delivery in a regional context. The Deep East Texas region was chosen to illustrate typical service providers and service delivery patterns in rural communities in Texas.

The case studies were not designed to be exhaustive analyses of these particular communities but rather to illustrate the range of riders, trip purposes, trip characteristics, and current cost characteristics that might be found in comparable communities in Texas.

In spite of very real data problems, it was possible to draw some general conclusions about some of the common characteristics of clients of social service agencies and to make some observations about the mode and cost of the provision of transportation services to those clients. The data from the three case studies were augmented considerably by the statewide interviews. The evaluations that follow are a synthesis of case study and statewide survey data.

Method of Service Provision

Transportation services are generally provided to clients of SSA's in one of the following ways:

(1) by volunteers and staff in private autos,

(2) by direct subsidy to the client,

(3) by the agency in purchased or donated vehicles, or

(4) by contract with a conventional transportation provider or another SSA, or less frequently with taxi operators.

However, as previously mentioned, the study team concentrated on options 2 and 3 and the discussions that follow generally relate to those methods. The propensity of any SSA to select a particular method of service was found to depend in large part upon the perceived level of demand for the service coupled with the level and source of funding available to develop an agency's own transportation system. Only to a lesser degree was the availability of other service options a consideration.

Most SSA transportation providers have only recently begun to directly provide transportation services to their clients. The incentives for such direct involvement have come from both Federal transportation assistance programs and programs and policies of Federal social service agencies such as HEW. Section 16(b)2 of the UMTA Act and Section 147 of the Rural Highway Public Demonstration Program allowed many SSA's to obtain vehicles and to become formally involved in direct transportation delivery for the first time. Several key HEW agencies, such as the Administration on Aging, changed their policies to allow, and even to require, individual SSA's to directly provide transportation services to their clients. Several researchers have compiled listings of the many Federal programs that provide, allow, or require transportation services to aided clients; a list of the array of Federal programs funding some type of transportation assistance in the Dallas-Fort Worth area has been compiled by the North Central Texas Council of Governments and is presented in Appendix D.

Prior to the availability of Federal assistance, some SSA's had already purchased vehicles or contracted services with local providers. But, for most SSA's, client transportation involved only occasional trips in staff and volunteer autos or a limited amount of reimbursement to clients relying on taxi and local bus systems. Although there are still a substantial number of agencies operating on this type of marginal basis, the number of SSA's using Federal funds both in Texas and in the rest of the country has grown.

The changes in available funding have affected the method and/or provision of transportation service to SSA clients in several ways. For non-volunteer transportation services, the higher the level of funding the more extensive the possible service. However, the level of funding may not have any direct relationship to need; for example, funding tends to be higher

in urban areas than in rural areas, where assistance may be non-existent. In addition, Federal and/or state funding agencies may impose requirements or conditions on such assistance which directly impact the method of SSA delivery. A funding source may require that the funds be used to pay only operating costs; for example, UMTA will provide money for vehicle acquisition under Section 16(b)2 but will not grant funds under that section to a SSA to contract for its transportation services. Of course, agencies with donated vehicles may give or lease the equipment to providers with whom they contract. Both urban and rural agencies have negotiated this type of contract, though it appears to be less common in rural areas, primarily because there are fewer transportation providers with whom to contract.

Type of Trips Provided

The majority of urban SSA transportation services are demand responsive, operating door-to-door. Most of these agencies require advance notice from their clients of from one day to one week since some of the trips require driver assistance and/or special vehicle equipment, such as wheelchair lifts. A small number of agencies schedule regular trips which involve the busing of institutionalized children to and from school and to other social activities. Some other agencies, such as the Texas Department of Mental Health and Mental Retardation (MHMR), also regularly schedule their trips, but the operations are flexible enough to adjust to different routing as client demands change over time. DPW is the only major agency in the state which contracts with conventional transportation providers - local bus and taxi companies.

Scheduling and operational characteristics in rural areas also tend to be demand responsive and the services operate door-to-door. Nearly all client trips in rural areas require advance notice and some necessitate special equipment and/or assistance. The majority of the other transportation services offered by rural agencies are regularly scheduled and operate on fixed routes. Similar to MHMR in urban areas, agencies operating on fixed routes maintain flexibility to meet the changing needs and location of clients. When volunteers and staff provide services they are usually demand responsive and operate door-to-door.

There are presently so many diverse types of client trips that it is difficult to classify or group them. There are some similarities in client trips from area to area for trips made under major social service programs,

such as those of the Administration on Aging (AOA), Medicaid, and MHMR. However, specific data on the scheduling characteristics and operational characteristics, types of vehicles, times of day trips are made, average trip lengths, origin destination patterns, trip frequencies, and ridership are largely unavailable, for both urban and rural trips.

Consequently, categories of client trips must be very broad. The four categories used to compare costs for the purposes of this study are based on major classes of scheduling and operational characteristics and are as follows: (1) demand responsive, door-to-door service, (2) demand responsive, door-to-door service with special vehicle provisions, (3) regularly scheduled small groups, door-to-door service, and (4) regularly scheduled large group, point-to-point service.

(1) Demand responsive, door-to-door service. While few social service agencies offer true demand responsive service, many agencies offer client transportation on an advance notice basis. These programs generally require clients to request transportation a day in advance, but return trips are usually provided on a demand basis. These services are, therefore, included in this category. Service is provided round-trip from the clients' doors to their destinations.

(2) Demand responsive, door-to-door service with special vehicle provision. These services are provided on the same basis as the preceding category but in different types of vehicles. The services are primarily for the physically handicapped, and the vehicles are equipped with wheelchair lifts or ramps and interior tie-downs. The costs of these services are generally higher because the vehicles are more expensive, more time is required for passenger loading and unloading, and it is more difficult to combine passenger trips.

(3) Regularly scheduled small groups, door-to-door service. Some agencies provide client services or treatment on a regular schedule of varying frequency. This situation makes it possible for them to schedule their client trips well in advance on a regular basis. This type of transportation is also offered on a door-to-door basis, but the scheduling characteristics allow easier grouping of client trips and help to reduce costs.

(4) Regularly scheduled large group, point-to-point service. Some social service agencies are able to transport clients in large groups, ten or

more, at generally lower costs/passenger trips. These riders are grouped in advance and are transported as a group to and from a single destination. These agencies mostly serve youth groups, but trips from nursing homes or institutions are also included in this category.

In urban areas, client trips tend to involve many origins and many destinations due to the large number of clients and the diversified service locations. In rural areas, the majority of trips are characterized by many origins and one destination. Because of the limited population base of rural areas, social services tend to be localized in the major city of the county or surrounding counties.

Although some agencies did collect aggregate mileage figures, there is little useful information on average trip lengths. Most agencies that maintained trip records counted only vehicle miles or passenger miles; few agencies in the case studies collected data on average one-way passenger trips. The Austin Transit System did compile average one-way passenger trip mileage for its special Medicaid service; in a 10-1/2-month period in 1975 and 1976 the average one-way trip was 8.8 miles. Since only 4 percent of the riders were from rural Travis County, this is largely an urban average trip mileage. The Houston area Medicaid program found that the average one-way passenger trip was approximately 9.6 miles in urban areas and 17.9 miles in rural areas.

Management and Coordination

Empirical observations in all three case communities make it apparent that there is extensive duplication of services and little coordination between existing systems. Two or more providers may be serving essentially the same clients in one area and providing no service at all in another area. Duplication is most prevalent in urban areas while complete lack of service is generally found in rural areas.

The problems of duplicated services and non-served areas reflect the lack of inter-agency coordination and cooperation. Federal programs give agencies the means to provide service without any requirement or inducement to provide that service efficiently. In fact, some of the grant requirements tacitly encourage inefficient service. For example, the Austin MHMR was unable to use UMTA funds to contract with a local cab company, even though the per passenger cost to the agency might have been significantly reduced. Secondly,

SSA's were slow to accede to the release of existing vehicles because the service is a source of community prestige and visibility for the agency. Moreover, many SSA's felt that other providers would be insensitive to the needs and problems of their clients.

Limited attempts at consolidating funds and vehicles for more efficient service can be found in each of the case studies. The most promising in terms of scale is an attempt by the Tarrant County United Way to determine a nonprofit central provider for all of its funded agencies. The United Way is presently negotiating with the Council of Churches to act as a central provider or broker. However, it should be pointed out that not all areas have agencies with the transportation expertise necessary to perform this role. Moreover, the options available to rural areas are especially limited since many counties are not serviced by taxis.

A problem common at all scales of delivery is the lack of transportation expertise and sophistication. Persons responsible for scheduling and operating the system generally have little formal training and even less previous experience in the management of transportation services. Since transportation was not the primary mission of most agencies interviewed, few sought to significantly improve their agency operation or the expertise of their personnel in this area. Many operational decisions were ad hoc responses to crisis or pressure situations and did not represent major policy decisions about organization transportation services. Even larger social service systems with a number of vehicles, such as NCDCA in Houston, had grown on an incremental basis, responding to the availability of funds and demands for service.

Most SSA's interviewed had no idea of the number of clients who actually needed transportation in order to effectively utilize the primary social service(s) offered; as a corollary none of the agencies interviewed had a clear idea of the number of potential clients who were dissuaded from utilizing the primary social service because of lack of transportation. Many SSA's reported great client difficulty in obtaining transportation and many SSA's believed that underutilization of social services was due to transportation deficiencies. However, none of these evaluations was based on comprehensive data or analysis of ridership or service utilization. Several of the regional offices of DPW, which are providing transportation to Medicaid recipients (under Federal court order), recognized that lack of data on client

needs and utilization was a serious problem in planning transportation services and recommended the funding of a major needs assessment study in each DPW region. However, most SSA's interviewed saw little need for an in-depth investigation of their intuitive feelings about the transportation needs of their clients.

This attitude was reflected in the kinds of records kept by SSA's on client trip characteristics. Many SSA's kept records on total passenger trips but could not tell if the aggregate represented a few individuals riding many times or a number of individuals riding infrequently. Most SSA's did not record the time of day a trip was taken, the physical characteristics of the travelers (e.g., age, gender, degree of physical impairment, if any), and the extent to which riders required assistance (e.g., wheelchair tie-downs).

Cost accounting was also very primitive for many SSA's interviewed. Most SSA's excluded any expenses borne externally when calculating their costs; commonly excluded were direct expenses such as vehicle purchase and driver salary when the vehicle was donated or obtained through a grant and the driver was already a full-time employee. Hidden subsidies, such as free garaging or free maintenance or volunteer drivers, were often completely ignored. The majority of SSA's directly providing transportation services to their clients did not amortize their vehicle expenses if they had obtained the vehicle for little or no cost. Taxi operators in the case communities complained that many social service agencies did not understand straightforward economic presentations of cost and ridership estimates. For example, SSA's often did not understand the differences between paid vehicle miles and paid passenger miles.

Service duplication and lack of agency coordination are only heightened by SSA inexperience and the lack of client trip and cost data. Because the SSA's surveyed generally did not know their true costs they had little understanding of how to reduce those costs; additional vehicle investments were often (incorrectly) perceived as a way to reduce costs or to increase efficiency. Moreover, many SSA's were unwilling to consider better interagency coordination or contracts with alternative providers because they could not understand or predict the impact of such arrangements on their clients or their own cost patterns. Lack of accounting expertise also inhibited coordination; different SSA's wished to be billed or to pay on the basis of different measurement units, e.g., one-way passenger trips, hourly rates,

passenger miles, and vehicle miles. For example, NCDCA, a nonprofit transportation provider in Houston, has a variety of SSA contracts but, because it has no way to equitably distribute costs between, for example, clients of agencies paying hourly rates and clients of agencies paying for vehicle miles, NCDCA will not mix clients of different SSA's on the same vehicle. This of course drastically lowers vehicle-load factors, keeps costs high, and reduces the potential advantages of inter-agency cooperation. The problem is not all NCDCA's; in most cases there is no statutory reason for the various SSA's involved to use their particular cost unit for billing; they generally insist on the units of cost that they have traditionally used or that they understand.

SSA's were also unwilling to consider inter-agency coordination or alternative contracts because they thought that they were not consistent with the policy or legislative mandate of their state or Federal funding source. Other researchers have addressed this problem at length; Rivas, in a HEW-sponsored study, concluded that Federal prohibitions applied to only 10 percent of the situations in which coordination was considered but rejected. However, SSA personnel were often unwilling to take the risk involved in initiating service coordination or alternative contract arrangements. Some SSA's were unwilling to consider mixing their clients with the clients of other SSA's on board a vehicle even if the cost arrangements could be worked out, because "it had never been done that way."

Summaries of Individual Case Studies

The general patterns presented above were synthesized from the data collected in all three case communities and from state-wide interviews of major SSA's and conventional transportation providers. A brief description of the empirical findings in each site follows in order to put these general observations into better perspective.

Metropolitan Fort Worth. Primary transportation providers in metropolitan Fort Worth include the DPW, Trinity Valley MHMR, Greater Fort Worth Council of Churches, and a number of United-Way-funded agencies.

Prior to September 1976, DPW contracted delivery of Title XIX medical trips with Transportation Enterprises, Inc., and the Council of Churches. Presently, the local bus service, CITRAN, and the Fort Worth Cab Company are transporting Medicaid clients. CITRAN permits unlimited travel for medical

trips at a contract purchase price of $3,100 per month. In the second month of operation about 11,700 trips were recorded, but this number overstates passenger trips because it includes transfers. During the same reference month, the cab company serviced about 980 clients unable to use the CITRAN system. DPW pays the cab company $6,900 per month regardless of ridership. If the meter fare for client trips is less than the monthly contract price, the cab company credits the difference to the succeeding month. DPW limits the number of client trips when the meter fare appears to be exceeding the contract.

Trinity Valley MHMR transports about 200 clients per day. This service is maintained with a rolling stock of four autos, four vans, and two buses; none of the vehicles has a wheelchair lift. Funds for this service accrue from the State MHMR, the Fort Worth Independent School District and a limited collection of client fees. This service is scheduled 24 hours in advance and operated door-to-door.

The Council of Churches currently operates three separate transportation programs with a total of eight vans. One program, FISH, relies on non-reimbursed volunteers to provide any medical trip to and from John Peter Smith Hospital. Between 400 and 500 persons use this service each month. One out of every three persons is also eligible to use the DPW medical program. The second program, which is funded by the Area Agency on Aging (AAA) to assist senior citizens, offers two services. The neighborhood program provides any trip in a neighborhood upon the demand of an aged person. The elderly may also obtain transportation for essential services such as hospital visits, shopping, DPW visits, and the purchase of food stamps. Transportation for senior citizens in these two programs involves about 4500 trips each month. Most of these trips are scheduled in advance although some are available upon demand; all trips are door-to-door. Finally, there is a general purpose transportation program in which vehicles are leased to SSA's. The client and service characteristics of the average of 250 trips per month depend upon the nature and demands of the leasing agency.

Twenty-five of the 33 SSA's funded by the United Way in 1974 provide some transportation services. The combined rolling stock of these agencies totals 73 vehicles: 22 station wagons, 21 passenger vans, 14 school buses, and 16 vans. In addition, a few agencies reimburse clients who use taxicabs or CITRAN and members of the staff who use their own cars. About three-fourths

of the 5175 persons served each month are young boys and girls, who tend to be transported in large groups. The remainder of persons severed generally have ill health or other major problems and tend to use the service on a more individualized basis. Most of the agencies serving the elderly, handicapped, or poor require one day advance notice. All agencies provide door-to-door service, but it is not known how many require driver assistance or special wheelchair equipment. In 1976, the average numbers of passenger trips ranged from a high of 1300, by the Fort Worth Boys' Club, to a low of 12, by the United Cerebral Palsy Association.

Austin and Surrounding Region: The Region. The only transportation system serving the entire region is the DPW Title XIX (Medicaid) program in Region 10, which contains 30 counties clustered around Austin. DPW contracts with six transportation providers at a cost of $308,289 per year to provide Medicaid trips in that 30-county area. In addition, DPW has provided most of its contractors with vehicles, some of which are specially equipped for handling wheelchairs. For extensive discussion of other urban transportation providers in Austin, the reader should refer to Appendix A.

The 30-county Austin region averages 13,730 one-way DPW trips per month; about 50 percent are to private physicians. Most of the remainder of the rides are to public clinics in Austin, Waco, Temple, and Bryan. The average one-way passenger trip ranges from slightly under 10 miles in the city to about 20 miles in rural areas. The total number of clients needing driver assistance on special equipment is not known.

In Austin and Waco, Medicaid recipients use the city bus system by showing their Medicaid card. Waco maintains a continuous count of all persons using the system, while Austin conducts a survey twice a year in order to determine ridership and cost. Both bus systems are regularly scheduled transit systems, operating on fixed routes.

All other areas in the 30-county region are served by vans operating in a demand responsive mode, requiring 24 hours notice, and providing door-to-door service. This covers strictly non-emergency trips in primarily rural areas with a widely spread client population.

Rural counties in the smaller ten-county CAPCO region provide transportation services for the elderly, poor, and handicapped in a multitude of ways with different funding sources. There are DPW-leased vans in Hays, Caldwell, Williamson, and Burnet Counties. Blanco County is provided transportation

services from Hays County, and Llano County is serviced from Burnet. The Williamson-Burnet County Community Action Agency has one 16(b)2-vehicle and one Green Thumb vehicle to serve clients in those counties. In Caldwell County the Senior Citizens Center has just been granted a 16(b)2-vehicle. Lee County has one Green Thumb van and makes about 7 passenger trips per day. Fayette County has three station wagons and makes about three passenger trips/vehicle/day. In Hays County, the DPW has leased a van to the Community Action Agency (CAA).

Austin and Surrounding Region: The Urbanized Area. Austin MHMR, also, provides service for its clients, in four vans and one bussette, all purchased with Federal funds. Each van carries about 16 passengers per day, running on a fixed route but offering door-to-door operation. Clients are transported to various programs such as the Adult Activity Center, Day Treatment Center, and Night College. MHMR also allows other agencies to use their vans on a cost basis, but very few agencies have taken advantage of the opportunity.

DPW Medicaid clients are served in a manner similar to that followed in Fort Worth. About 5000 persons per month use the transit system by showing their Medicaid card. Mobility impaired persons are provided service in two demand responsive vans operating door-to-door. These vans are leased by DPW and operated by City Transity, serving about 700 persons each month.

The Area Administration on Aging (AAA) is not providing any direct transportation services in Austin. It does give the Parks and Recreation Department funds to lease two vans with hydraulic lifts, plus providing operating costs for clients in the Senior Luncheon Program.

In addition to these agencies, there are numerous other agencies providing transportation in purchased and donated vehicles for a smaller clientele. For example, the Adult Day Care operates a 12-passenger van funded by Lutheran Social Service to provide service to about 40 elderly and/or poor clients. The van has no special equipment, but some of the clients require driver assistance. The Settlement Club Home provides transportation for its 15 residents (emotionally disturbed children) in a 49-seat passenger bus. The majority of the trips are to and from school. Medical and shopping trips are provided by the staff in private cars.

Deep East Texas. The principal transportation providers in this twelve-county region are DPW, MHMR, and the AAA Service Centers.

Transportation of DPW Title XIX recipients occurs in several different ways. In Angelina County, DPW contracts all Medicaid trips with the Lufkin Cab Company. The service is demand responsive and averages about 460 one-way trips per month. The Tri-County Community Action Agency is the contractor in Sabine, Shelby, and San Augustine counties; it provides service to about 140 persons per month. In Jasper, Newton, and Tyler counties, Home Health-Home Care has the Medicaid contract. In the five remaining counties, DPW provides service directly, in its own vehicles. DPW also contracts with individual providers in these five counties to serve clients whose trips involve greater average distances or who live in difficult-to-reach areas. Except in Angelina County, providers require some advance notice and operate door-to-door. The average number of one-way trips per month and the percentage needing special equipment are not known.

Four 12-passenger vans operate out of three counties to serve MHMR clients. One van services the southwest quadrant of the region, including Houston, Trinity, Polk, and San Jacinto counties. Two vans operate out of Lufkin, in Angelina County, and also transport clients in Tyler, Jasper, and Newton Counties. The fourth van serves clients in Sabine, Shelby, San Augustine, and Nacogdoches Counties. The majority of the trips are scheduled in advance, but some are demand-responsive and some are fixed-route. All trips are door-to-door. Finally, MHMR has a 23-foot mobile clinic that makes regularly scheduled trips throughout the region.

The AAA Service Centers provide transportation for elderly and handicapped persons in the region. Seven of the 12 counties have minibuses to transport clients to the Aging Service Centers. The Tri-County CAA contracts this service in Sabine, Shelby, and San Augustine Counties. Since the Service Center in Sabine County is already performing this service, there is some duplication of effort. AAA contracts with the Nacogdoches CAA to provide senior transportation in that county. Houston and Jasper Counties do not have any special transportation services for the elderly, except those covered by Medicaid.

Other agencies providing transportation in this region include the Lufkin Workshop and Opportunity Center, Project Image, and the Polk County Child Development Center. These agencies serve the elderly, handicapped, low income, AFDC recipients, and underprivileged children. The Lufkin Workshop provides service in purchased and donated vehicles, Project Image in staff

cars only, and the Development Center with a combination of staff cars and purchased vehicles. All three operate on fixed routes.

COSTS OF SOCIAL SERVICE TRANSPORTATION

Introduction

The preceding chapters of this report have detailed the difficulties involved in gathering accurate information on various social service transportation programs. Because a large number of agencies were interviewed for this study, it was possible to develop some reliable cost data on social service client trips as they are currently being provided by various sources in Texas. This chapter analyzes these data and develops decision criteria for policy makers, social service agencies, and transportation providers in several key decision situations.

This section first identifies the range of actual costs included in the provision of transportation service by social service agencies, tabulating hidden or understated expenses and expenses borne externally by Federal or state agencies. A comparison between these SSA direct delivery costs and the cost of comparable service delivery by other transportation providers is made.

It is reasonable also to compare the out-of-pocket, rather than the actual, costs of SSA transportation systems to the costs of comparable service delivery by other transportation providers. Comparisons between real cost figures are realistic only in assessing the costs of new services or in evaluating requests for new vehicles or new assistance grants. It is foolish to expect any SSA to willingly incur greater out-of-pocket costs for services contracted to another transportation provider even when such a contract arrangement is seen as more efficient. Comparisons between out-of-pocket or perceived SSA costs and real costs of alternative providers could be used as decision criteria by SSA's which already own vehicles or enjoy unusually low maintenance or operating costs for some reason (e.g., volunteer drivers and free maintenance). However, it should be noted that many SSA costs are so high that, even if hidden subsidies are effectively ignored, the costs of alternative service provisions by taxi or other operators may be lower than current out-of-pocket costs.

The cost comparisons developed here are also intended as guidelines to policymakers in the State Department of Highways and Public Transportation and

state social service agencies. These costs comparisons can effectively indicate the impact of a number of different policies regarding assistance for vehicle acquisition, client transportation, and system management costs.

It was necessary to establish a common basis for expressing costs as they relate to social service transportation. Transportation costs can be expressed in a number of different ways. Cost information was generally obtained in three different forms: (1) cost/vehicle hour, (2) cost/vehicle mile, and (3) cost/passenger trip. Cost/vehicle hour is favored by mass transit operators and is a simple statement of the cost of operating a vehicle continuously for one hour. Cost/vehicle mile is the cost reporting unit commonly used by other transportation providers. This unit expresses the cost of operating a vehicle for one mile of service. Cost/passenger trip states the cost of transporting one rider for a complete one-way trip. Of these three methods, only cost/passenger trip considers ridership in determining transportation costs. In special transportation programs, such as social service client transportation, ridership is a key factor in determining efficiency or cost-effectiveness. For this reason, all costs in this section are expressed in terms of cost/passenger trip. This pricing method will be the basis of comparison among alternative methods of service provision in this report.

Social service agencies may provide client transportation in three basic ways: direct provision, contracting for transportation services, and providing direct subsidies to riders. This chapter does not deal with direct client subsidization, but the evaluation criteria developed could be used by SSA's to assess the cost-effectiveness of such client subsidies. This chapter first discusses direct provision of client transportation by an agency itself and typical costs for this type of transportation service. Alternative transportation providers with which a social service agency could contract, and their typical costs, are then discussed. Finally, this chapter compares these two methods of providing social service transportation and makes general recommendations as to how different types of client trips can best be provided.

Direct Provision

This study found that direct provision of transportation by social service agencies is currently the most common method of providing client transportation in Texas. This is especially true in terms of the total number

of agencies providing transportation, but, in addition, a majority of all social service clients are presently transported by the agency from which they are to receive the social service. Several factors influence an agency's decision on transportation, but there are three primary reasons why most SSA's choose direct provision of client transportation: (1) Federal funding incentives, (2) agency intangibles, and (3) lack of agency sophistication.

Agencies often favor direct provision because of the organization of Federal funding subsidies for social service transportation. The current system of Federal funding essentially offers incentives for social service agencies to directly provide client transportation services themselves. The majority of these Federal funding programs provide subsidies which enable an agency to purchase its own vehicles, while far fewer programs provide funds which can be used to contract for services or reimburse clients for transportation expenses (see Appendix D).

Other factors which influence agency decisions can be generally grouped as "agency intangibles." Many agencies receive extra benefits from their client transportation programs. Most agencies occasionally use their vehicles for other purposes when they are not transporting clients, such as transporting staff or supplies. Many agencies also noted that vehicles displaying their names increase the visibility of their services with the general public, providing good public relations and valuable advertising. Some social service agencies desire to provide a "total" service themselves. While client transportation may constitute only a small part of a social service program, some agencies prefer to provide comprehensive service for their clients, regardless of the costs involved.

A final important reason for the present popularity of direct provision of client transportation is that most social services lack sophistication with regard to transportation provision. Social service agencies, particularly smaller operations, frequently do not realize that contracting for service may provide better service at a lower cost. If an agency cannot accurately assess its own current or potential transportation costs, it cannot evaluate the possibility of contracting for this service. Those agencies that might consider contracting for client transportation may not possess the technical ability to pursue a contract and evaluate contract alternatives.

The remainder of this chapter discusses the "real" costs of direct provision of client transportation by social service agencies as if the agency

actually incurred the full range of costs. Factors which determine an agency's costs are discussed first, both to illustrate the many elements which compose these costs and to serve as a guide in cost accounting to social service agencies. This discussion of actual costs is followed by an examination of the differences between real and perceived costs. Finally, the typical costs of direct provision of client transportation by social service agencies with and without external subsidies are described and discussed.

Factors Which Determine an Agency's Cost. The numerous features which should be included in determining full operating costs are (1) equipment, (2) labor, (3) fuel, (4) maintenance, (5) vehicle insurance, and (6) overhead.

(1) Equipment. Equipment costs vary from agency to agency, depending on the type of vehicle required to meet the needs of the service. Station wagons can generally be acquired for $5,000 to $7,000, vans for $7,000 to $10,000, vans with wheelchair lifts for $8,000 to $12,000, and small buses for $15,000 or more. These costs will vary according to included options, such as power steering, automatic transmission, dual air-conditioning, and facilities for the disabled. If an agency is transporting more than a few clients on any basis other than regularly scheduled trips, the inclusion of radio equipment in the vehicles is desirable. Citizen band radios can be purchased for $150 to $250 for mobile units, and base units cost $300 to $450. The stronger, more reliable commercial band radios cost $700 and up for mobile units and $300 for base units.

(2) Labor. Labor represents another major cost in social service transportation and includes both salaries and benefit payments for all personnel in the transportation program. Drivers in these programs typically earn $3 to $4 per hour. Other personnel, such as dispatchers, schedulers, and administrators, must also be included in determining labor costs.

(3) Fuel. The costs of gas and oil will vary according to vehicle usage. Vans, for example, get about 9 to 10 miles per gallon. Fuel costs were estimated by dividing the miles per gallon into vehicle miles driven and multiplying that figure by the local gasoline costs.

(4) Maintenance. The cost of parts and repair services for vehicles in frequent, regular use is considerable. Maintenance costs for vans are around $500 during the first year but rise to $1000 or more per year after that period.

(5) Vehicle Insurance. Insurance costs will vary according to policy provisions and vehicle type and usage. In Texas these costs generally range from $250 to $500 a year per vehicle, although some agencies have incurred costs of $1,000 to $1,200 per year per vehicle.

(6) Overhead. All other costs associated with a social service agency's transportation program can be included under overhead. A major factor in overhead is facility space devoted to transportation, including both office space and vehicle storage space. Another item in this category is telephones, which are essential to such programs. Other overhead costs are supplies and printing, such as scheduling and dispatching forms, driver logs, and other record forms.

Another major factor in determining an agency's cost of providing client transportation on a cost/passenger trip basis is ridership. Dividing the annual operating costs as explained above, by annual ridership expressed in terms of total one-way client rips, will determine an agency's costs/passenger trip. The sheer volume of increasing ridership will generally decrease marginal costs, as long as the extra ridership does not require additional equipment and personnel. Under these conditions, fuel and maintenance costs will increase somewhat with increased ridership, but most other operating costs will remain constant. Completely demand-responsive systems, however, particularly those in low-density areas, show higher marginal operating costs as ridership first starts to increase. In general, however, increasing ridership to the limits of a program's capacity will result in a substantial lowering of cost/passenger trip.

Even more dramatic decreases in these costs can be achieved by combining passenger trips so that the number of riders/vehicle trip increases. This may result in marginally higher operating costs, but these will be more than offset by the additional ridership. This feature is certainly the key to lowering client transportation costs. Unfortunately, most social service agencies lack a sufficient volume of ridership and/or the dispatching or scheduling expertise to successfully combine several client trips into one vehicle trip.

Typical Agency Program Costs. This section presents the costs of direct provision of client transportation by social service agencies. The difficulties encountered in data collection for this study have been detailed

elsewhere; these problems have limited the precision with which costs can be discussed. Of the many agencies contacted for this study, reliable cost figures were obtained from only three, but cost estimates could be developed for about one-third of the remainder. It is possible that those few agencies which exhibited expertise in record keeping may also have greater expertise in the control of their transportation costs so that comparing the costs derived from these data might skew cost comparisons toward the lower end of the scale. Consequently, a range of costs/passenger trip will be presented, rather than average costs/passenger trip. Presenting cost data in this manner retains the integrity of the data and still allows cost comparisons.

As previously discussed, most client trips fall into one of four service categories:

(1) demand responsive, door-to-door,

(2) demand responsive, door-to-door with special equipment or driver assistance,

(3) regularly scheduled small groups, door-to-door service, or

(4) regularly scheduled large group, point-to-point service.

To allow for cost comparisons, all costs were figured on the basis of ten-mile, one-way passenger trips. Other features, such as vehicle types, times of day trips are made, origin-destination patterns, trip frequencies, and total ridership, which also affect costs/passenger trip, could not be held constant or normalized within these four categories. This factor additionally dictates the presentation of costs in ranges rather than as averages.

Typical costs for direct provision of client trips by social service agencies for different categories of client trips are presented in Table 1.

TABLE 1. TYPICAL COSTS FOR DIRECT PROVISION OF CLIENT TRANSPORTATION

Client Trip Categories	Social Service Agency Costs (Costs/passenger trip for 10-mile, one-way trips)
Demand responsive, door-to-door service	$3.00 - $10.00
Demand responsive, door-to-door service with special vehicle provisions	$5.00 - $12.00
Regularly scheduled small groups, door-to-door service	$1.50 - $ 9.00
Regularly scheduled large groups, point-to-point service	$2.00 - $ 5.00

The wide variance within these cost ranges is readily apparent. Some of this variance can be attributed to the variable factors within client trip categories, such as type of vehicles used, origin-destination patterns, and total ridership.

Real Versus Perceived Costs. The preceding section describes the manner in which the costs of direct provision of client transportation by social service agencies can be computed. Since many SSA's do not accurately compute their costs, they often elect to provide transportation services based solely on their perception of costs rather than on real costs. The perceived costs involved in direct provision of transportation services are almost always lower than real costs.

Many social service agencies are eligible for Federal aid for client transportation (Appendix D), including UMTA's Section 16(b)2. In addition, a number of agencies contacted for this study reported that their vehicles were donated by other than governmental sources. Demonstration grants are also available, from DOT, primarily from the Rural Highway Public Transportation

Program, but these funds are minor in comparison to the indirect operating assistance available from HEW sponsored programs.

These subsidies have a considerable impact on the manner in which client transportation is provided. Most subsidies presently available are for obtaining equipment. Equipment is generally the largest (or second largest behind labor) item in an agency's transportation budget. Consequently, vehicle subsidies are an attractive inducement to social service administrators, who perceive obtaining equipment as the major obstacle to their offering client transportation services.

It is clear that these subsidies are accomplishing their purpose, increasing the transportation services available to social service clients. It is not clear, however, that equipment subsidies are the best method of accomplishing this goal. Vehicle subsidies commit SSA's to direct provision of client transportation without considering other options which may be less costly. With "free" vehicles agencies can operate their transportation programs at substantially reduced out-of-pocket costs. While this situation usually results in initial savings for a SSA, it is not necessarily the best use of public funds and may create higher SSA costs in the long run.

Equipment subsidies may create an additional problem for SSA's. Agencies which do not receive these subsidies usually rent vehicles or make regular purchase payments and their annual vehicle costs are, therefore, included in their operating costs. Social service agencies which receive equipment grants should also include depreciation on their vehicles as an operating expense because they are in no way assured of receiving additional funds or additional "free" vehicles when present equipment wears out; some subsidies are given to aid agencies in starting a client transportation system, with the expectation that the agency will continue the service after the subsidy ends. Realistically, social service agencies should include depreciation of vehicles on a 3 to 5-year basis in their annual operating costs so that they will have funds for replacement equipment even if they do not count the initial cost of vehicle acquisition. This factor is frequently overlooked by subsidized social service agencies attempting to determine their costs.

SSA's also perceive lower transportation costs because they fail to recognize all their operating costs, essentially ignoring certain expenses. Costs may be overlooked because of inaccurate or insufficient record keeping, especially in the areas of fuel or maintenance. Costs are most often ignored

because they are seen as part of an agency's operating expenses; one such cost is labor. Some SSA's reported no labor costs at all. Other social service agencies reported labor costs for drivers only, excluding administrators and other staff members unless they were associated with the transportation program on a full-time basis. Their reasoning was that these staff personnel had other responsibilities and their salaries were paid by other program areas. To obtain real transportation costs, however, a portion of these salaries, roughly equal to the time these personnel spend working on transportation, should be included in agencies' operating costs. Another major area where costs may be ignored is overhead. Many agencies reported extremely low overhead or no overhead at all, explaining that the agency would require office space, telephones, etc. regardless of its transportation program. Again, to determine real operating costs, overhead expenses must be prorated and charged against the transportation costs.

Table 2 graphically illustrates the manner in which subsidies and hidden costs affect the perceived versus real costs of social service client transportation systems. The agencies used in this table were selected to demonstrate the problems encountered in determining costs for social service agencies, but these three agencies are not atypical. The perceived costs shown in this table are the cost data initially reported by these agencies. Real costs figures were developed by (1) follow-up interviews to gather additional information, (2) projections made from this additional information when precise records were not available, and (3) estimates of certain cost factors based on reliable data from similar programs. Consequently, real costs as shown in Table 2 are not completely accurate, but they do conform to reality much more closely than the perceived costs reported by these agencies. It appears that SSA's underestimate their real delivery costs by a factor of 200 to 300 percent.

These study findings are supported by research conducted by the United Way of Metropolitan Tarrant County. That study concluded that "it is likely costs reported by agencies [20.9¢/vehicle mile] are understated and would be closer to 40¢/mile on the average after overhead, labor, and other direct and indirect costs are included."[1] In light of these earlier findings, it was

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[1] Planning and Research Council, Survey of Special Transportation Provided by United Way Agencies, Fort Worth, Texas, United Way of Metropolitan Tarrant County, June 1974.

TABLE 2. PERCEIVED VERSUS REAL COSTS

	Agency A		Agency B		Agency C	
Cost Factors	Perceived	Real	Perceived	Real	Perceived	Real
Passenger trips/year	250	780	2,688	2,688	420	420
Annual operating cost						
Equipment	$ 0	$ 1,733	$ 0	$ 2,333	$ 0	$ 1,000
Labor	0	3,640	7,300	10,950	0	1,820
Fuel	500	513	636	2,376	500	536
Maintenance	1,000	1,000	915	915	500	500
Insurance	200	200	200	200	272	272
Overhead	0	700	0	1,600	0	450
Total	$ 1,700	$ 7,786	$ 9,676	$ 18,374	$ 1,272	$ 4,578
Cost/passenger trip	$ 6.80	$ 9.98	$ 3.60	$ 6.83	$ 3.08	$ 10.90

disturbing to find that social service agency cost-accounting practices had not improved in the two-year interim between studies. Obviously, these practices will not change until strong incentives exist to improve the situation.

Alternative Providers

While most social service transportation is provided directly by social service agencies, a number of agencies do contract with alternative providers for transportation. The Title XIX Medicaid Program, which is the largest single provider of social service client trips in Texas, operates in this manner. There are basically three alternative types of transportation providers with which a social service agency might contract for client transportation: nonprofit transportation providers, taxi companies, and transit companies. Each of these alternative providers will be discussed in turn in the following section in terms of its organization and operation, advantages and disadvantages, and typical costs for transporting social service clients.

Nonprofit Transportation Providers. Most contracts for social service transportation in Texas are currently given to nonprofit transportation providers. For the purposes of this report, a nonprofit transportation provider is generally considered to be any social service agency which provides transportation to another social service on a contract basis. There are a few large providers of this type in Texas, notably the Neighborhood Centers - Day Care Association in Houston, the Crossroads Community Center in Dallas, and the Council of Churches in Fort Worth. These particular agencies are primarily involved in providing various social services and provide transportation for their own clients as well as clients of other contracting agencies.

In addition, there are a number of social service agencies which contract the excess capacity of their transportation program to another agency. These agencies can be differentiated from large nonprofit transportation providers because they do not have the capacity to expand their transportation services beyond their current levels of operation or to accommodate more than one contract at a time. Instead, they are generally seeking to share their transportation resources with another agency in order to lower their costs.

The following discussion will concentrate on large nonprofit providers because they have a much greater ability to serve the transportation needs of other social service agencies. These providers, however, currently exist in

only a few large cities; in other areas of the state, interagency cooperation in providing transportation is a more realistic alternative for contract provision of client transportation. The following discussion, therefore, will also include consideration of such arrangements in areas where contracting with a small nonprofit provider is significantly different from contracting with a large nonprofit provider.

-----Organization and Operation. The nonprofit transportation providers interviewed for this study did not seem to consciously choose to develop large transportation programs which could serve other agencies. Rather, their current transportation systems grew out of their attempts to better utilize the transportation resources they had developed for their own client transportation; this practice "snowballed" until they found themselves to be major transportation providers.

Neighborhood Centers - Day Care Association (NC-DCA), in Houston, for example, began transporting children in their childcare programs in the early 1950's with two buses; they currently operate a fleet of 97 vehicles, ranging from 66-passenger buses to 6-passenger wheelchair-equipped vans. In addition to serving their own day care clients, NC-DCA now provides client transportation for 19 other social groups or social service agencies, including the regional office of the Department of Public Welfare. While NC-DCA is by far the largest nonprofit transportation provider in Texas, their growth is indicative of the role nonprofit providers can play in providing social service transportation.

Large nonprofit transportation providers generally are able to combine the resources of several programs into a more efficient organization. Such providers are able to maintain a full-time staff devoted to transportation services. This centralized administration enables them to maintain detailed records and generate the kind of data necessary for service planning and managerial decisions.

These providers generally have similar operating characteristics. One of the key advantages that large nonprofit providers offer is centralized scheduling and dispatching which allows them to utilize their vehicles more efficiently. Another operating advantage is that they generally operate radio-equipped vehicles, further increasing their operating efficiency. Large nonprofit providers are also able to maintain a pool of drivers and other personnel, which usually insures smooth, daily operation of their

transportation services. They either provide their own vehicle maintenance or have established service contracts for maintenance.

Smaller nonprofit transportation providers usually do not possess all of the above operational characteristics. They frequently do not operate radio-equipped vehicles, which significantly reduces their scheduling and dispatching efficiency. The most significant difference between these two types of nonprofit providers, however, is that the administration of small nonprofit transportation providers is not as well organized. Accepting a contract to serve another agency may well lead to a new set of administrative problems with records and billing which they are unprepared or even unable to handle.

-----Advantages and Disadvantages. The major advantage of contracting with a nonprofit transportation provider is that such providers have experience in providing social service transportation. Consequently, they should already be familiar with the type of service required, client characteristics, and trip characteristics. Furthermore, since these providers are essentially social services themselves, they are better able to relate to and communicate with other social service agencies. Many social service agencies chose to contract with a nonprofit provider largely on the assumption that these providers will better understand the needs of the agency and its clients.

Another group of advantages relates to the operational characteristics of nonprofit transportation providers. Nonprofit providers are usually better able to utilize vehicles and labor through centralized scheduling and dispatching. They also have existing maintenance expertise. Large nonprofit providers have an additional advantage in that they are able to reduce overhead due to the existence of an established administration which specializes in transportation.

A final advantage of contracting with nonprofit providers is that as social service agencies the providers are eligible for the wide range of subsidies available to social service agencies for client transportation. This gives them the ability to apply any Federal or state funds to their transportation programs, reducing their direct costs. These cost savings may be passed on to the contracting agencies.

Contracting with nonprofit transportation providers is not without its disadvantages, however. Even though a social service agency may feel a certain rapport with a nonprofit provider, it loses direct control over its

transportation program. This can lead to slow responses to rider complaints or slow implementation of desired service changes. In conjunction with this disadvantage, large nonprofit providers may develop into monolithic bureaucracies. While increasing the number of contracts with social service agencies, a nonprofit provider may develop standardized policies and procedures which cause it to become less sensitive to individual agencies.

Nonprofit providers typically pay their drivers more than other social service agencies which directly provide client transportation but less than regular transit operations. Nonprofit providers generally have a high driver turnover rate, as many drivers gain training and experience with the programs and then move to better paying jobs with transit operators. This situation results in a constant infusion of inexperienced drivers, which generally lowers service efficiency and rider satisfaction. Some SSA's in Houston who contract with NC-DCA have reported problems with inexperienced drivers.

The greatest disadvantage of contracting with nonprofit providers is that they are currently unable to mix riders from different programs on board a vehicle, which would lower their costs considerably. Some SSA's believe that their Federal or state funding source prohibits them from mixing clients; some even believe that their legislation requires that vehicles must be totally dedicated to the use of their clients, even if unutilized for large portions of the day. There are indications, as discussed in Chapter 3, that these opinions about policy and statute may be wrong. However, these views do prevent some SSA's from taking full advantage of the full potential of nonprofit providers. Nonprofit providers currently perceive group riding as the key to lowering their transportation costs, although they are unsure of how to handle billings under a system that mixes riders from various programs.

-----Typical Costs. The typical costs/passenger trip for social service client trips provided by nonprofit transportation providers are shown in Table 3. The most notable fact is that the range of costs is narrower than those for direct provision of transportation by social service agencies. This may indicate that nonprofit providers are generally more efficient than social service agencies which provide their own client transportation. This table also reveals that nonprofit providers are most effective in providing regularly scheduled service. Their inability to provide door-to-door service at lower costs is a result of their current inability to mix clients from different programs on the same vehicle trip.

TABLE 3. TYPICAL COSTS FOR NONPROFIT TRANSPORTATION PROVIDERS

Client Trip Categories	Nonprofit Provider Costs (Costs/passenger trip for 10-mile, one-way trips)
Demand responsive, door-to-door service	$3.00 - $7.00
Demand responsive, door-to-door service, with special vehicle provisions	$5.00 - $8.00
Regularly scheduled small groups, door-to-door service	$1.00 - $3.00
Regularly scheduled large group, point-to-point service	$2.00 - $4.00

Cost differences between large nonprofit providers and small nonprofit providers are not shown in this table. In general, larger providers have lower costs for all types of client trips.

Taxi Companies. Taxi operators are generally anxious to contract with social service agencies to provide client transportation. Taxis have been serving the needs of the transportation disadvantaged - the poor, the elderly, and the handicapped - for many years. Consequently, the operators perceive direct provision of transportation to these groups by social service agencies as direct competition to taxi service. This study did not attempt to determine if the clients now being served by social service transportation programs formerly used taxis for these trips, but taxi operators in Texas have reported declines in ridership in recent years. It seems a reasonable assumption that recent increases in these client transportation programs account for at least part of the reported decline in taxi ridership.

In recognition of this situation, taxi operators in several Texas cities have recently initiated contracts with social service agencies. Yellow Cab of Dallas operates door-to-door service for clients of the Variety Club Caravan. The Variety Club reports that they are very satisfied with this service, and their client trips are now being served at significantly lower costs/passenger trip. Two of the regional Title XIX Medicaid programs studies for this report

are contracting with taxi companies for their client trips. Yellow Cab of Lufkin provides Medicaid trips in Angelina County at the lowest cost/passenger trip of any contract provider in that region. Fort Worth Cab and Baggage also provides regular door-to-door service and door-to-door service with special vehicle provisions for the handicapped in Tarrant County. This contract was previously held by a nonprofit transportation provider, and the DPW Administrator in that region reports much greater satisfaction with the service provided by Fort Worth Cab and Baggage.

Yellow Cab of Houston is probably the most active taxi company in the state in terms of pursuing social service contracts and is presently operating transportation services for several agencies. Houston Yellow Cab operates wheelchair-equipped vans which are used to transport clients for the Houston Muscular Dystrophy Association. They have also contracted with a local hospital to provide patient transfers to other hospitals and nursing homes at 25 percent of the price the hospital was paying under previous arrangements. Yellow Cab of Houston began a contract with the Houston Independent School District in September, 1976, to transport special education pupils, and they have just signed an agreement with the regional DPW to provide transportation service to some DPW clients. The students are transported twice daily at a rate of $3.57 per student. School district officials have publicly noted that they are pleased with this service and that this price is very close to what it would cost them to provide the service in their own vehicles - <u>if</u> they had the required vehicle space available.

These are all outstanding examples of the provision of social service client transportation by taxi companies. They do not indicate that taxis are always a better alternative than direct provision of client transportation. These examples are presented simply to indicate the role taxi companies can play in providing social service client trips.

<u>-----Organization and Operation.</u> Taxi companies are private transportation providers, operating in most Texas cities of 10,000 or more. They are chartered and regulated by local municipalities. The local ordinances determine fares and several operating characteristics of the taxi service. Ordinances vary from city to city, but the basic operating characteristics of taxi companies are fairly consistent throughout the state.

Taxi companies are in business to provide demand responsive, door-to-door transportation to the public. The central features of this service are a

centralized dispatching system and radio-equipped vehicles. Most large taxi companies operate their own maintenance facilities and have developed a high degree of expertise in this area. Taxi companies also maintain a pool of skilled labor. Drivers may work directly for the taxi operator or under contract arrangements.

Taxi companies may serve social service clients in two different ways. A few agencies, such as the Texas Rehabilitation Commission, reimburse clients for their transportation expenses, so their clients may individually choose to use taxis at the regular meter rates. Most social service agencies, however, prefer to offer transportation as a formal program activity rather than reimbursing clients on a case-by-case basis.

Where not prohibited by local ordinances, taxi companies also have the ability to contract with social service agencies to provide client transportation. A comprehensive discussion of local taxi ordinances in Texas, as they relate to contracting for these services, is presented in Appendix B of this report. There may be local ordinances governing such features as group riding, operating vans for handicapped passengers, charging a rate other than shown on the meter, or entering into contracts. In general, ordinances were not found to be an obstacle to taxi contracts in the larger cities, although the taxi programs discussed in the preceding section did require minor changes in local ordinances. Taxi operators interviewed reported that in those instances the local officials did not oppose the required revisions. The full impact of local taxi regulation on the provision of client transportation services throughout Texas still remains in doubt and is an important area in need of research. Taxi operators with contract experience have suggested that some basic local regulations would be more conducive to the involvement of taxi operators in client transportation.

-----Advantages and Disadvantages. The advantages of contracting with taxi companies for social service client transportation arise from the industry's considerable expertise in providing demand responsive, door-to-door transportation. Since so many client trips require these features, there is a large market which taxis could serve. Taxi services in Houston and Fort Worth have shown that it is possible to integrate vans for handicapped riders into their operations, further increasing the number of client trips and the social service agencies which taxi companies could serve.

While social service administrators have expressed doubts regarding the ability of taxi drivers to adequately serve their clients, such fears seem exaggerated. Taxi drivers generally have some experience in transporting poor, handicapped, and elderly riders, as many of these transit dependent persons have been frequent taxi riders. Taxi operators have been sensitive to the feeling and prefer to assign experienced drivers to social service client trips whenever possible. The recent Houston DPW-taxi contract calls for regular drivers to be assigned to just that service.

Other operational characteristics of taxi services also provide advantages in serving door-to-door client trips. A taxi company's existing expertise in scheduling and dispatching gives it an edge over alternative providers in combining riders and lowering costs per passenger trip. Taxi companies also possess an existing pool of trained labor, vehicles, and maintenance facilities. Since these resources are often not fully utilized, taxi operators generally have excess capacity which they can contract out at reduced prices.

Another major advantage of using taxis to provide client transportation is that taxi companies exist in most small Texas cities. This makes taxi operations more common than large nonprofit transportation providers or transit companies and thus more available as an alternative to direct provision of client transportation. In addition, contracts between social service agencies and taxi companies promote private enterprise and prevent law suits for unfair competition. While the latter does not appear to be a concern of social service administrators, it does concern taxi operators and the Urban Mass Transportation Administration. UMTA has noted the impact of Federal subsidies for social service transportation on the taxi industry and is currently reinterpreting its policies to promote more participation by taxi companies in this area.

A major disadvantage of contracting with taxi companies for client transportation is that the social service agency loses direct control over the service. This can lead to any of the problems discussed earlier in the section on nonprofit providers. These problems might be aggravated in this case, however, as social service administrators and taxi operators seem to have serious difficulties in communicating with each other. Contract negotiations between these two groups have often broken down because of this problem. Social service administrators have complained that taxi operators

are only concerned with costs and figures and are not sufficiently concerned with their clients' needs. Taxi operators, on the other hand, report that service administrators attach misplaced importance to the needs of individual clients and tend to discuss service needs on a case-by-case, rather than group, basis.

Some SSA's with taxi contract arrangements have had difficulties with service refusals and driver no-shows. Several SSA's in Houston which currently contract with both Houston Yellow Cab and NC-DCA are actively seeking 16(b)2 vehicles because of these problems. One major problem is that taxis are not equally available at all times and waiting periods vary significantly by time of day. Another is that many Yellow Cab drivers are owner-operators; some feel free to turn down senior riders or groups of riders because they do not see the trip as profitable. The latter is an especially significant problem in Texas cities because of the high percentage of individual owner-drivers. SSA's contracting with taxi operators may have to require that the operator assign regular drivers or employees who are willing to undertake the assignment to the contract service.

Communication and service problems may be the source for a bias among social service agencies against contracting with a profit-making transportation provider. This bias appears to run deep. Just as there are intangible reasons for direct provision of client transportation, social service agencies seem to prefer contracting with nonprofit providers whenever possible. This is partially a result of their rapport, based on similar interests, but it also reflects the fact that social service agencies see these contracts as "seed money," which helps to promote other social services. At present, contracting with a taxi company appears to be an agency's last choice. Where such contractual arrangements have been undertaken, decisions were based on demonstrably lower cost contract taxi services.

A final disadvantage of taxi provision of client transportation is that taxi operators are not generally eligible for any type of Federal support or subsidy, as are other alternative providers. In November 1976, however, UMTA did make a grant to a public transit authority to be used to pay a private taxicab company to offer discounted taxi services to elderly and handicapped residents of Oklahoma City. UMTA is also funding several user-side subsidy projects involving taxi systems. Such activity may indicate that taxi operations will become eligible for significant Federal subsidies in the

future. Taxi operators do not, realistically, expect significant Federal aid, but the lack of subsidy makes it difficult for them to compete for social service contracts with organizations which are subsidized.

-----Typical Costs. The typical costs/passenger trip for social service client trips are shown in Table 4. It should be noted that costs are shown for only the three different types of door-to-door client trips, excluding point-to-point service for regularly scheduled large groups. Taxi companies are not currently able to serve this type of trip, but they might develop this capability in the future if it is desired or required. At present, taxi companies appear cost competitive for their door-to-door service and should attempt to establish contracts for this type of trip.

The range of these costs is small as rates were found to be fairly consistent in the areas of Texas studied. The meter rates shown above are lower than the costs/passenger trip reported by some social service agencies; contract taxi rates are even lower. Not all taxi companies are legally able to contract for fares other than the meter rate or to charge special fares for group riding; where they are able to do so they are generally willing to offer lower rates on a regular contract. The cost data suggest that, if the various problems involved with contracting between taxi companies and social service agencies can be overcome, taxi companies could and should begin to play a larger role in transporting social service clients.

TABLE 4. TYPICAL COSTS FOR TAXI COMPANY SERVICE

Client Trip Categories	Taxi Service Costs (Costs/passenger trip for 10-mile, one-way trips)	
	Meter Rate	Contract Rate
Demand responsive, door-to-door service	$ 5.00 - $ 6.00	$3.00 - $4.00
Demand responsive, door-to-door service with special vehicle provisions	$10.00 - $12.00	$4.00 - $6.00
Regularly scheduled small groups, door-to-door service	$ 1.50 - $ 2.50	$1.50 - $2.00

Transit Companies. While transit operators are currently playing only a limited role in the provision of social service client trips, transit operators have often joined with taxi operators to protest the transportation subsidies given to social service agencies. This is an indication that some operators see SSA transportation as competitive with their own services in some cases. The future of transit systems in this field is presently unclear and depends on the role that transit systems are required to play by state and Federal agencies and the courts, as well as on the role individual transit operators choose to play.

Transit companies are increasingly being required to make their services more useful for the disadvantaged. Recent rulings have required transit companies to make their services more accessible to the elderly and handicapped, but, at the time of this writing, the extent of required changes has still not been resolved. Transit operators anticipate adding special equipment to some or all of their vehicles to facilitate the use of public transit by these groups. Such changes would increase the ability of transit companies to serve social service clients on current routes.

Most transit operators have made it clear that they would prefer not to institute such new types of service. Like taxi operators, transit operators are primarily interested in continuing to offer their basic service - fixed route, mass transportation. Experiments in innovative transit services of this type, such as dial-a-ride systems, have not generally been successful, and enthusiasm for these types of service is fading. A much-heralded dial-a-ride system in Dallas was an embarrassing, and expensive, failure. Transit operators are concerned that the needs of the transportation disadvantaged be served but do not feel that they are the appropriate providers in most cases.

-----Organization and Operation. The vast majority of transit companies in Texas are municipally owned systems, offering fixed route, mass transportation to the general public at a relatively low price per trip. Many are managed by privately owned management firms, giving them considerable administrative expertise. Transit operations typically operate only large vehicles on limited schedules. Transit drivers are generally well-trained and accordingly paid well. Furthermore, these transit companies operate professional vehicle maintenance facilities and programs.

Because regular transit fares are low, social service agencies which take advantage of this service to transport their clients can provide these trips

at a low cost/passenger trip. Agencies may reimburse clients for transit trips or provide tokens or coupons to their clients in advance for these trips. In Austin and Fort Worth, DPW has taken this concept a step further by contracting with the local transit companies to provide transportation for Medicaid clients who are able to use regular mass transit. Under these contracts clients show their Medicaid cards and ride free. The DPW pays a monthly contract price which is adjusted periodically according to ridership, which is determined from sample surveys. It is clear that Medicaid clients are using this service for travel other than medical trips, but costs are relatively so low that DPW administrators seem willing to subsidize these other trips rather than implement more expensive service alternatives.

While transit trips are very cost effective, no social service agency can reasonably expect to serve all or even most of their client trip needs with a fixed-route system. The clients of most social service agencies are often transportation or location disadvantaged to such an extent that regular transit service can be used only as a supplementary or auxiliary means of transporting clients. Of course, transit companies could choose to provide the type of flexible service required for most social service transportation if they desire.

At the present time, the city of Austin, through Austin Municipal Transit, and the City of Houston, through HouTRAN, are the only transit organizations in Texas providing demand responsive, door-to-door social service transportation. The Austin service is provided under a contract with the Department of Public Welfare to transport Medicaid clients who cannot use regular transit. This program operates as other Medicaid programs described in the preceding sections. An interesting facet of this program is that it provides the intrastructure which allows the City of Austin to offer special services to the general public who are certified as handicapped, for fifty cents per ride. Consequently, other social service agencies in Austin are able to reimburse handicapped clients in this category rather than directly providing client transportation. The City of Austin, however, does not appear to wish to offer the more tailored door-to-door services required by many social service agencies.

Other transit operators in Texas have expressed great reluctance to get involved in specialized transit programs at any level. Transit operators are generally sensitive to the fact that they could be infringing on the services

of other transportation providers. Most importantly they fear that these services are too radical a departure from their regular operations to be able to insure they will be successful. The operators are concerned that there is not enough continuing demand for these services to justify their entry into this field.

-----Advantages and Disadvantages. The advantages of transporting clients on fixed-route transit where possible are evident, as the savings in cost/passenger trip are enormous. Since it is not feasible to transport all clients in this manner, these advantages are limited to the extent that fixed-route transit service can be utilized by a social service agency.

Transit operators have long-term experience in providing public transportation and have usually developed a great deal of expertise in transportation service planning. Also, as shown in Austin, transit companies can mix the general public with eligible social service clients. Transit companies have the additional advantage of existing administration, labor, and vehicle maintenance facilities. Finally, local transit companies are eligible for a wide range of Federal funds which could be used to subsidize these services.

These advantages may be outweighed by the fact that transit companies do not currently possess the capabilities necessary to enter into contracts with social services for client transportation and are not likely to develop these capabilities. Transit labor is normally unionized, which often leads to higher operating costs than those of other alternative providers. An SSA would lose direct control of its client transportation program in contracting with a transit property. Finally, difficulties between public and private nonprofit agencies might be encountered.

-----Typical Costs. The typical costs for various types of client trips are shown in Table 5. The cost for fixed-route service is presented in only one category of client trip, reflecting the fact that, by definition, conventional transit service is not provided on a door-to-door basis. For clients who are able to use regular mass transit, however, the costs/passenger trip are extremely low.

TABLE 5. TYPICAL COSTS FOR TRANSIT COMPANY SERVICE

Client Trip Categories	Transit Service Costs (Costs/passenger trip for 10-mile, one-way trips)	
	Fixed-Route Rate	Contract Rate
Demand responsive, door-to-door service	NA	$4.00 - $6.00
Demand responsive, door-to-door service with special vehicle provisions	NA	$4.50 - $6.00
Regularly scheduled small groups, door-to-door service	NA	$2.50 - $4.00
Regularly scheduled large group, point-to-point service	$ .25 - $ .50	$1.50 - $2.00

The contract rates shown in Table 5 for door-to-door service are based on data provided by the City of Austin, cost estimates provided by the City of Fort Worth, and cost estimates made by transit operators. Contract rates for regularly scheduled groups are based on current transit charter rates. These contract costs seem to indicate that contracting with transit operators is cost competititive when this option is available. Although these data are based on estimates rather than actual operating experience and may be somewhat higher in actual practice, it may still be valuable for social service agencies to explore the possibility of contracting with transit companies for client transportation and to compare their findings to the costs of other alternatives.

Comparison of Alternatives and Guidelines

This section compares the four methods of providing social service client transportation discussed in the preceding sections: direct provision by social service agencies, contracting with nonprofit transportation providers, contracting with taxi companies, and contracting with transit companies. The actual cost of providing client transportation under each of these methods is discussed, but comparisons are based only on out-of-pocket costs. If a social

service agency is receiving Federal subsidies for direct provision of client transportation, actual cost comparisons among alternative methods of service provision are largely irrelevant, but SSA's will still need to compare perceived or out-of-pocket costs with those of alternative providers. Since service costs alone are not always the deciding factor in choices among these four alternatives, the advantages and disadvantages of each alternative will be reviewed.

The typical costs of providing social service client transportation by these four different methods are shown in Table 6. There is no clearly superior provider for any particular category of client trip. It is possible for direct provision of client transportation by social service agencies to be cost-effective for any of these trip categories. Not surprisingly, the same holds true for nonprofit transportation providers. Contracting with taxi companies to provide client transportation seems appropriate only for door-to-door service, but this option would still allow taxi operators to serve the majority of social service agencies. While mass transit may be limited in the role it can play in providing client transportation, it too can be effective in certain cases. What finally emerges, therefore, is not an indication of the single best provider for certain types of client trips but several best alternatives for each client trip category.

It is clear that <u>some</u> social service agencies would definitely save money and probably improve their client transportation services by contracting with an alternative provider. It is also clear that some social service agencies are directly providing client transportation at out-of-pocket costs below or comparable to the price at which they could purchase this service. Agencies with high costs/passenger trip, however, would clearly be better off contracting for client transportation services. It remains the responsibility of each social service agency to examine and evaluate these alternatives with respect to its specific needs and unique local conditions.

The advantages and disadvantages of direct provision of client transportation versus contract alternatives are summarized in Table 7. These advantages and disadvantages are not really directly comparable. They must be weighed in each instance by a social service agency deciding on the manner in which it wishes to provide client transportation. These factors will assume more rational proportions if they are recognized in advance and accepted as part of a necessary trade-off. It is further hoped that, by understanding these factors in advance, some agencies will be able to resolve certain

TABLE 6. COSTS OF PROVIDING CLIENT TRANSPORTATION BY DIFFERENT SOURCES

Client Trip Categories	Alternative Providers (Out-of-pocket costs for a 10-mile, one-way trip)					
	Direct* Provision by Social Service Agencies	Nonprofit* Transportation Providers	Taxi Companies		Transit Companies	
			Meter	Contracts	Fixed-Route	Contract
Demand responsive, door-to-door service	$3.00-$10.00	$3.00-$7.00	$ 5.00-$ 6.00	$3.00-$4.00	NA	$4.00-$6.00
Demand responsive, door-to-door service with special vehicles	$5.00-$12.00	$5.00-$8.00	$10.00-$12.00	$4.00-$6.00	NA	$4.50-$6.00
Regularly scheduled small groups, door-to-door service	$1.50-$ 9.00	$1.00-$3.00	$ 1.20-$ 2.50	$1.50-$2.00	NA	$2.50-$4.00
Regularly scheduled large group, point-to-point service	$2.00-$ 5.00	$2.00-$4.00	NA	NA	$ .25-$ .50	$1.50-$2.00

NA = This service option is not currently available or not applicable.

*This wide range of costs reflects the fact that some SSA's receive subsidies for vehicle acquisition, operating costs, or maintenance while others do not.

TABLE 7. ADVANTAGES AND DISADVANTAGES OF DIRECT PROVISION VERSUS CONTRACT ALTERNATIVES

Provider	Advantages	Disadvantages
Direct Provision by Social Service Agency	Eligible for Federal subsidies Direct control of transportation program Able to use vehicles for other purposes Provides good public relations and advertising Allows agency to provide "total" service	May be able to provide more or better client transportation by contracting
Nonprofit Transportation Provider	Experience in providing social service transportation Better usage of vehicles and labor through centralized scheduling and dispatching Established administration and maintenance expertise Eligible for Federal subsidies	Large providers may not exist where needed Lack of direct agency control Currently unable to mix riders from different programs because of perceived restrictions or inadequate accounting procedures High driver turnover rate can lower service quality May encounter bureaucratic problems with large providers

(continued)

TABLE 7. (Continued)

Provider	Advantages	Disadvantages
Taxi Companies	Expertise in door-to-door demand responsive transportation Expertise in transporting poor, handicapped, and elderly riders Expertise in scheduling and dispatching will combine more riders Existing trained labor, vehicles and maintenance facilities Service exists in most Texas cities Promotes private enterprise and prevents suits for unfair competition	Lack of direct agency control Difficulties in communication between social service administrators and taxi operators Bias among social service agencies contracting with profit-making provider Not generally eligible for Federal subsidies
Transit Companies	Experience in providing public transportation Expertise in transportation service planning Ability to offer specialized services to general public Existing administration, labor, and maintenance facilities Eligible for wide range of Federal funds	Not currently able to offer most desired contract services Lack of direct agency control Difficulties in working between public and private agencies High labor costs

disadvantages while still capturing the advantages of the alternative methods of providing for client transportation.

It is clear that all social service agencies should compare the costs of alternative methods of providing client transportation before making a decision on one particular method. The following general guidelines based on the scale of the proposed system are presented to facilitate this decision. Of course the scale of the operation cannot be the only deciding factor. The type of clients to be transported and the dispersion of origins and destinations are also a significant factor in this decision. Fifty institutionalized clients transported to one medical facility present a different situation than fifty clients living in their own homes and needing transportation to a number of private doctors. However, the data obtained from the SSA's interviewed are really only sufficient to derive approximate parameters for this decision. The guidelines that follow are based on the study team's partially subjective analysis of the experiences of the SSA's interviewed.

-If an agency needs to provide 50 or less client trips per month, it should attempt to use staff or volunteers to transport clients or contract with an alternative provider. Direct provision of client transportation at this scale is not cost-effective.

-If an agency needs to provide between 50 and 350 client trips per month, it should strongly examine the possibility of contracting for services. Direct provision of client transportation is generally more expensive in this range, and volunteer programs are usually not feasible on this scale.

-If an agency needs to provide between 350 and 500 client trips per month, it should investigate and consider all options. The best choice in this range will vary according to many features.

-If an agency needs to provide more than 500 client trips per month, it should strongly consider direct provision of client transportation. Other alternatives should still be investigated, however.

-As the needs of a social service agency directly providing client transportation increase beyond 600 client trips per month, it will probably be necessary to obtain additional vehicles to provide this service. When additional vehicles are required, an agency should investigate the possibility of contracting for some of its clients' trips rather than purchasing additional equipment.

CHAPTER 4. CONCLUSIONS, POLICY RECOMMENDATIONS AND RECOMMENDED RESEARCH

CONCLUSIONS

The study team has concluded that most SSA's involved in client transportation services provide those services in an inefficient manner, significantly underutilizing both vehicles and driver-personnel. Even nonprofit transportation providers with considerably more experience and expertise in this field may operate inefficiently because of their inability to mix the clients of the different social service agencies with whom they contract. There appears to be a significant number of social service client trips which could be provided more efficiently and more economically by taxi operators than they are now being provided by SSA's, even when Federal and state subsidies are available to the SSA's. However, the study team has also concluded that in the absence of strong action by the Governor or the Federal executive branch, such situations will not only continue to exist but will increase in frequency. SSA's base their transportation decisions on two key factors - their perception of client needs and their understanding of their own costs. Most SSA's have such an unclear idea of their clients' needs and such a poor idea of their real service costs that it is not realistic to expect them to drastically change their current arrangements simply because they appear inefficient or unfair to outside academic observers or the taxi or transit industries. Even those SSA's that recognize the problems that do exist have too little information to be willing to make any major service alterations. Stronger incentives and/or sanctions are required.

The majority of social service agencies in Texas involved in providing client transportation service know little about the travel patterns of the clients they currently transport and even less about the travel needs of clients they are not currently serving. They have little or no idea of the full extent of the travel needs of their clients nor of the impact of any client's need for transportation on his/her effective utilization of the social services they provide. Thus, most SSA's have no way to gauge how

important a service they are providing their clients and what priority they ought to assign transportation services in their overall budget. Moreover, because SSA's poorly understand their current client usage patterns, they have no way to predict the kind or number of trips that would occur should transportation service be increased or modified. There are few incentives for an SSA to develop a better understanding of the transportation needs of its clients. The few Texas agencies, such as DPW, that have recognized the need to do such a client needs assessment have been unable to obtain the funds to do so.

The majority of social service agencies involved in client transportation service have insufficient data on their own client transportation costs to intelligently evaluate alternative modes of service provision. Most social service agencies simply do not know or understand enough about the true operating costs of their systems to make any rational choices between direct provision of service to clients and contract services provided by taxi operators or other transportation providers. Moreover, there are currently no incentives for SSA's to develop better methods of record keeping or to become more aware of the true costs of operating their own client transportation system.

Not only are there no incentives for SSA's to develop a better understanding of client needs or a better understanding of true operating costs, but Federal and state funding programs tend to discourage such enlightenment. Federal programs do not require proof that recipient agencies are providing services in a cost-effective manner, and they generally do not allow funds to be expended to evaluate the effectiveness of service provision. More importantly, if an agency should reduce its costs through more efficient service provision, it might reduce its share of continuing Federal or state assistance; few SSA's would willingly do that. Where SSA's are aware of the "real costs" of service provision, it would not be rational for them to refuse any Federal or state assistance which would significantly lower their out-of-pocket costs.

The study team hopes that the cost guidelines presented in Chapter 3 will be of use to some SSA's who are on the verge of making decisions about the type of client transportation service they will provide. The study team also hopes that the information presented in this report will alert some SSA's, as well as COG's and MPO's involved in regional transportation planning, to the true

costs involved in client transportation provision. But, most importantly, the study team hopes that all of the information and analyses presented in this report will alert Texas state officials and administrators to the serious need to undertake major revisions in state policies and requirements regarding transportation assistance to SSA's and other transportation providers. While the state cannot change Federal legislation or even Federal policy, it can consciously act to mitigate the dysfunctional aspects of Federal transportation assistance programs while attempting to see that its own transportation policies do not create the same dysfunctional impacts.

Several bills were introduced in the state legislature in the last session which would have required MHMR and selected other state social agencies to provide transportation for certain kinds of clients, much in the manner that DPW is currently required to. Without vigorous and intelligent action now by state officials, there is clear danger that these social service agencies will begin the operation of their own transportation systems, even where this is obviously unsound, or that they will make less than optimal choices about contract provision.

RECOMMENDATIONS

The study team offers the following recommendations to help ensure that public monies are expended in an efficient and effective manner. These policy recommendations highlight the role the state should play in providing incentives, technical assistance, and funding to SSA's.

(1) The State Department of Highways and Public Transportation should develop a comprehensive accounting system, including uniform measures of costs, uniform tabulations of trip characteristics, and relevant rider information, for use by all state agencies providing transportation for their clients either directly or through contract arrangements. This accounting system should have provision for equitably assessing the cost shares of different agencies when their clients are carried aboard the same vehicle.

(2) The Governor should require all state agencies expending any funds on client transportation to adopt and maintain the uniform accounting system developed by the State Department of Highways and Public Transportation. The Governor should designate one state agency to serve as a technical advisor and consultant to other state agencies who are implementing the uniform accounting system. The Governor should require the designated state agency to set up and operate a series of training sessions, workshops, and continuing education

programs for all state personnel with responsibilities for transportation service provision and/or the uniform accounting system instituted. The Governor should require the designated state agency to also make the same or similar training and educational programs available to all nonprofit transportation providers in Texas who seek such assistance.

(3) The Governor should require all state agencies receiving or expending funds on client transportation, as well as all public and private agencies receiving transportation grants from the State Department of Highways and Public Transportation, to conduct an analysis of the cost of alternative methods of service provision using the cost and trip measures developed as part of the uniform accounting system. The Governor should require evidence as part of the annual budget process, and/or the grant application process, that the most efficient and/or least costly mode of service provision is or will be utilized. Should this requirement not be met, all transportation funding should cease or be denied or funds should be limited to the equivalent of the least costly mode of transportation service provision.

(4) The Governor should require all state social service agencies involved in the provision of client transportation to conduct a comprehensive needs assessment. This needs assessment should include an evaluation of the trip characteristics of clients currently being transported, an identification of the transportation needs of existing or potential clients not currently being transported, and an analysis of the effect of inadequate transportation on the social service utilization patterns of various client groups. The Governor should require all social service agencies to evaluate their findings of clients' needs, to develop criteria to judge the importance of different levels of transportation service to various client groups, and then to prioritize both client needs and alternative levels of transportation service. The Governor should require all state social service agencies to develop long range plans for transportation provision, based on the priorities given to the transportation needs of various client groups.

Although the data are not complete, evidence presented in Appendix C indicates that existing local taxi regulations may significantly interfere with the ability of taxi systems to contract services to social service agencies. Even where prohibitive regulations do not exist, the lack of positive or permissive language in local ordinances may inhibit the development of such contract services. The study team recommends:

(5) The Governor should require the State Department of Highways and Public Transportation to develop a model municipal taxi ordinance which could be adopted by Texas cities to encourage greater participation by taxi operators in the provision of needed transportation services. The model ordinance should

consider provisions for group-riding, contract services and other meter variations, and changes in overly restrictive insurance or vehicle requirements.

Throughout the United States, Departments of Transportation and social service agencies are concerned about inefficient SSA transportation systems. Some areas are considering a range of options that do not necessarily involve alternative transportation providers. These areas are attempting to use management skills and techniques to reduce the inefficiencies in the existing operations of SSA transportation systems. Because there is very little such activity in Texas, the study team was not able to evaluate the full potential of such management options. However, the comprehensive coordination of existing systems is an option that should be seriously considered since not all SSA's who currently operate transportation systems can or should contract for alternative service provision. Moreover, in certain cases, effective coordination of existing systems might increase vehicle and driver utilization to the point that costs/passenger trip are equal to or lower than those of alternative providers. If SSA's are required to conform to Recommendation No. 3, one of the options they could consider is better coordination with other SSA's in their community, in addition to or in conjunction with the consideration of alternative providers. The study team makes the following recommendation:

(6) The State Department of Highways and Public Transportation should investigate the various techniques and methods of system coordination that could reduce inefficiencies in the existing delivery of transportation services by social service agencies and nonprofit transportation providers. The techniques investigated should include but not necessarily be limited to: coordinated dispatching, shared radio control, joint purchasing of vehicles, and shared maintenance facilities. The investigation should include an analysis of the organizational or administrative structures or methods necessary to carry out such coordination techniques among a variety of social service agencies and nonprofit transportation providers.

Officials throughout the United States are also dealing with another concept which involves the integration of taxi systems with social service and other agencies. The "broker" concept, as it is often called, recognizes that, just as different transportation providers have different service characteristics, social service agency clients have different travel needs. No one transportation provider can provide all client trips efficiently, but most

providers are clearly superior for one or a few classes of trips. Simply, the idea has been advanced (and tried to a limited degree) that one agency should coordinate the changing needs of clients with the potential of various transportation providers, mixing clients of different SSA's on the same vehicle where advantageous and handling all billing. Where taxi operators offer the most economical service for the client trip need, the designated agency or broker would contract with the taxi operator for that service. Such a concept clearly has potential application in Texas, and the study team makes the following recommendation:

(7) The state should actively consider coordinating and rationalizing the provision of transportation to clients of social service agencies and to the transportation disadvantaged by utilizing the full range of existing public and private transportation providers in the state. A study should be undertaken to identify the potential of a system operating as a brokerage, matching client transportation needs with the most efficient transportation provider for those particular needs. The analysis should include an identification of geographic areas and communities in Texas where such a concept would be feasible and practical. The study should also include an analysis of the administrative or organizational structures, at a state and a sub-state level, that could or would be required to operate such a brokerage system.

The study team believes that there are issues related to taxicab operations in Texas that were beyond the scope and the resources of this research but are in need of further study before the taxi industry can be fully integrated into transportation systems in Texas. They are

(1) <u>The organizational structure of the taxi industry itself</u>.

There are important questions about the impact of franchise and entry controls on the provision of taxi service in Texas cities. A study should be undertaken of the impact of such restrictions and regulations on the quantity and service characteristics of the transportation provided by the industry in various communities in Texas.

(2) <u>The potential relationship of the taxi industry to the transit industry</u>.

There have been suggestions nationally that taxi and transit service could be better coordinated to allow each type of system to provide the service it provides best, but in an integrated way, to assure that the public receives the overall benefits. A study should be undertaken to determine in what situations the taxi system could provide better service at lower cost without jeopardizing the stability of the transit system itself. The study should include an identification of

the kinds of situations and services where such taxi involvement is possible in cities of different sizes in Texas and should indicate the various administrative structures available to coordinate such services.

(3) The impact of the direct provision of client transportation by social service agencies on the ridership and operations of the taxi industry.

The taxi industry has charged that subsidized social service agencies are effectively competing with them for their traditional clients - the disadvantaged. A study should be undertaken to determine the actual impact on taxi operations in various communites of the direct provision of client transportation by social service agencies. The identification and analysis of such data would give public policymakers a clearer idea of the consequences on private industry of various policy options.

APPENDIX A

COMPREHENSIVE AUSTIN CASE STUDY

APPENDIX A. COMPREHENSIVE AUSTIN CASE STUDY

During the fall semester of 1976, a University of Texas team contacted 154 social service agencies located in the Austin area. Each agency was asked what type of social programs it offered, who it served, and whether it provided transportation for its clients. If the agency responded that it did not provide transportation, this fact was recorded and the interview was complete. If, on the other hand, it did supply transportation to its clients then it was informed that it would receive a questionnaire regarding its system and that it would be contacted in one or two weeks in order to establish a time for a more extensive interview.

Twenty-seven agencies and three residential institutions were found to provide transportation services in Austin. The data which follow are a tabulation of the information collected from these SSA's. The number of agencies reporting sufficient data for all tabulations is small; in general, 23 agencies provided the team with at least a minimum of data.

TABLE A1. SOCIAL SERVICE TRANSPORTATION PROVIDERS IN AUSTIN

Austin Agencies Providing Transportation	Austin Institutions Providing Transportation
1. Travis County Welfare	1. Texas School for the Blind
2. Travis Association for the Blind	2. Travis State School
3. Texas SER Job Bank	3. Austin State Hospital
4. Veterans Service Office - Travis Office	
5. Montopolis Neighborhood Center	
*6. Texas Department of Public Welfare: Volunteer Unit	
7. United Cerebral Palsy Association of Texas	
8. South Rural Center	
*9. Parks and Recreation	
*10. Mental Health Mental Retardation	
***11. Area Agency on Aging	
12. American Cancer Society	
13. Middle Earth Unlimited	
14. Settlement House Club	
*15. Big Buddy	
16. American National Red Cross	
17. Counseling Services for the Deaf	
**18. Big Brother-Big Sister	
19. Capital Area Rehabilitation Center	
*20. Christian Service Center	
21. Caritas	
*22. Community Workshop Market	
**23. Lutheran Church Services of Texas	
*24. Child and Family Services	
25. Chris Cole Rehabilitation Center	
*26. Vaughn House	
*27. Youth Employment Service	

*Sufficient information for tabulation purposes not available

**Emergency transportation only

***Contracts with private and/or public transportation providers

TABLE A2. TYPES OF RESTRICTION PLACED ON TRANSPORTATION BY FUNDING SOURCES

Type of Restriction on Transportation	Funding Sources					
	Private Contributions	City	County	State	Federal	Total
None	6	1	2		3	12
Percent of total funds spent for transportation				1		1
Restrictions on use	2			2		4
Rules of the grant					1	1
Limited funds				1		1
Total	8	1	2	4	4	19

An overwhelming number of funds do not have restrictions which limit the range of transportation an agency can offer. This means many agencies are free to establish a variety of service delivery systems.

Of the 19 agencies with definite funds for transportation, seven have restrictions placed on them. The Texas SER Job Bank is not permitted to use more than 3 percent of its annual expenditures for transportation. The Travis County Welfare Department uses its state funds to reimburse staff and to give clients money to buy gas, while church donations are earmarked for payment of bus fares. The only restriction on the Chris Cole Rehabilitation Center is that state cars cannot be used for personal use, while only the elderly can use the Parks and Recreation vans.

ORIGIN-DESTINATION PATTERNS

Fourteen systems have a one-to-many origin-destination pattern; clients are taken from their homes to school, a workshop, or an agency or from an agency to a job interview or house or another agency.

The remaining six systems with sufficient data to analyze exhibit a many-to-many pattern, which involves transporting people from their homes to a doctor, shopping, etc.

TABLE A3. TRIP FREQUENCY BY TIME OF DAY

Frequency of Trips per Month	Time of Day			
	6:00-8:00 a.m. 3:30-6:00 p.m.	8:00-5:00	Varies Throughout the Day	Total
1- 20		6	1	7
21- 40	1	2		3
41- 60	1	1	1	3
61- 80		2	1	3
81-100		1		1
101-200			1	1
201-400		1		1
Total	2	13	4	19

Thirteen out of 19 agencies transport people between the hours of 8:00 a.m. and 5:00 p.m. only. Much of the transportation is provided by staff.

The two agencies that provide transportation between 6:00 and 8:00 a.m. and between 3:30 and 6:00 p.m. are workshops or schools. All of the transportation provided between these hours is for the purpose of bringing clients to the center or school in the morning and taking them home at night.

The remaining four agencies whose transportation hours vary provide alternative transit or provide residential facilities for the clients. For example, the Veterans' Service Administration gives a Veteran the fare to take a bus from Austin to a V.A. hospital. Middle Earth Unlimited is a residential facility which provides transportation whenever needed.

TABLE A4. AVERAGE MILEAGE FOR VARIOUS TRIP TYPES

Trip Type	Average Mileage						
	0.5-3	4-7	8-11	12-29	30-39	40 and over	Total
To and from agency and/or agency program		3				2	5
Work or job interview	1		1				2
Medicaid		2	1			1	4
School	1						1
Other		3	1		1		5
Total	2	8	3	0	1	3	17

Fourteen out of 17 of the agency trips take place within or not far outside the Austin city limits. One of the agencies whose trips fall within this category has an average trip mileage of 45 miles because its vans pick up clients who are scattered throughout the city and take them to one rehabilitation center. The other thirteen agencies average from one to 11 miles, one-way, and their trips consist of transporting clients to and from work, schools, agencies, doctors, nutrition programs, job interviews, shopping, etc.

Two of the remaining SSA's have an average one-way mileage of over 40 miles. The first services veterans, who use public buses to go from Austin to a V.A. hospital. The other is the Capital Area Rehabilitation Center, which makes trips outside of Austin of 50 to 55 miles.

TABLE A5. TRIP FREQUENCY OF VARIOUS TYPES OF TRANSPORTATION

Frequency of Trips per Month	Staff	Agency Owned or Leased Van/Bus/Car	Public Bus	Volunteer Auto	Pay per Service	Total
1- 20	6	1	2	3	2	14
21- 40	1	2				3
41- 60	1	2	1	1		5
61- 80	1	2				3
80-100						0
101-200	1		1	1		3
201-400						0
Total	10	7	4	5	2	28

Of the twenty-eight SSA's, ten provide transportation with staff members, and nine of these provide less than eighty trips per month. Seven SSA's own or lease vans, buses, and/or cars and provide less than eighty trips per month. This type of system utilizes resources very inefficiently since the low trip frequency does not warrant the operation of an agency van or bus. The remaining trips are provided by public transit or interstate bus companies.

TABLE A6. TYPE OF SCHEDULE AND SERVICE

	Type of Service					
Scheduling	Emergency	To and From Agency or Agency Program	To and From Workshop, School, or Job Interview	Planned Activity	Medical	Other
Demand	7		1		1	3
Advance notice		5		2	2	2
Regular schedule		2	4	1		
Total	7	7	5	3	3	5

Emergencies are, of course, demand actuated, while planned activities and trips to and from workshops or school are regularly scheduled. Also, nine out of fifteen trips for shopping, to doctors, to and from agencies, etc. are advance notice. One SSA that does provide demand actuated service is the Texas SER Job Bank; if a staff member uncovers a job opportunity and the client does not have access to transportation the staff member will provide transportation to the job interview. One of the two regularly scheduled and to-from an agency programs involves the Austin Municipal Parks and Recreation vans, which provide regular trips to adult nutrition centers and other programs. The other service is provided by the South Rural Center, which uses the county van to provide transportation to the elderly every Tuesday and Thursday.

SERVICE ISSUES

The restriction on services that was quoted most often is a tight budget, which does not permit the development of an adequate transportation system. A distant second is the lack of willingness to provide transportation, or a feeling that transportation is not an integral part of the agency's program. There was a feeling that clients must learn to be self reliant and that this will not occur if the agency provides its own transportation system. Because volunteer help is unreliable, an agency which does not have adequate funds for transportation will choose not to provide transportation rather than depend on volunteers.

APPENDIX B

TAXICAB REGULATION IN TEXAS

APPENDIX B. TAXICAB REGULATION IN TEXAS

A survey was conducted in conjunction with this study to examine the impact of local taxicab regulations in Texas on the use of taxis for social service client transportation. A brief questionnaire was sent to 75 cities in Texas with populations of 15,000 or more, and 32 returns were received, a response rate of 43 percent. Of the 32 responses, four cities indicated that taxi companies were no longer operating in their area, and those responses were excluded from the data presented in this appendix.

Cities were also requested to furnish a copy of their local taxicab regulations. These municipal codes revealed that local regulations vary widely from city to city in response to local needs and circumstances. For example, border cities find it necessary to include ordinances governing taxi trips to and from Mexico. Some cities, particularly larger ones, have instituted a comprehensive set of ordinances, apparently developed from a model code and adapted for local use. Other cities, however, have adopted minimal regulations which are much less specific.

Cities were asked to respond to eight questions which dealt specifically with the use of taxis for social service client transportation. The responses are presented in Table B1. Each column of this table represents the various cities' responses to each of the questions. Each question and the responses obtained are discussed below.

1. Are local taxi companies free to contract with social services agencies to provide client transportation? Twenty-four cities answered yes to this question with a few of these adding that such contracts were permissible as long as all ordinances were observed. Four cities replied no, although an examination of their taxicab codes revealed no prohibition against such contracts. When questioned about this discrepancy, officials in these cities took the position that their franchising powers gave them the ability to block these contracts. This position could probably be successfully challenged, but, more importantly, it reveals resistance to innovative taxi services in some Texas cities.

TABLE B1. SPECIAL FEATURES OF TAXICAB REGULATIONS IN TEXAS

	Contacting Permitted	Restrictions on Operating Outside City	Group Riding Permitted	Charges Based on Rate Other Than Meter	Insurance Required	Other Regulatory Agencies	Special Programs Operating	Interest in Special Programs
Amarillo	Y	N	Y	Y	Y	N	N	N
Andrews	Y	N	Y	Y	Y	N	N	N
Arlington	Y	N	Y	N	N	N	N	N
Baytown	Y	N	Y	N	Y	N	Y	Y
Beaumont	Y	N	Y	N	Y	N	N	N
Bellaire	Y	N	Y	N	Y	N	N	N
Cleburne	Y	N	Y	N	Y	N	N	N
Dallas	Y	N	Y	Y	N	N	Y	Y
Del Rio	N	Y	Y	Y	N	N	N	N
Denison	N	N	Y	N	Y	N	N	N
El Paso	Y	Y	Y	N	N	N	N	N
Fort Worth	Y	N	Y	Y	N	N	Y	Y
Garland	Y	N	Y	N	Y	N	N	N
Grapevine	Y	N	Y	N	Y	N	N	N
Houston	Y	N	Y	N	N	N	Y	N
Killeen	N	N	Y	Y	Y	N	N	N
Laredo	Y	N	Y	N	Y	N	N	N
Lubbock	Y	N	Y	Y	Y	N	N	N
McAllen	Y	N	Y	N	Y	N	N	N
Nederland	Y	N	Y	Y	Y	N	N	N
Pampa	Y	N	Y	Y	Y	N	N	N
Plainview	Y	N	Y	Y	N	N	N	N
San Angelo	N	Y	Y	N	N	N	N	N
San Marcos	Y	N	Y	Y	Y	N	N	N
Victoria	Y	N	Y	Y	N	N	N	N
Waco	Y	N	Y	N	Y	N	N	N
Weslaco	Y	N	Y	N	Y	N	N	N
Wichita Falls	Y	N	Y	Y	N	N	N	Y
TOTALS	24 Y 4 N	3 Y 25 N	28 Y 0 N	13 Y 15 N	19 Y 9 N	0 Y 28 N	4 Y 24 N	4 Y 24 N

Y: Yes N: No

2. Are there any restrictions on local taxis operating outside your city limits? Twenty-five cities replied negatively to this question. The three cities which replied yes also indicated that these ordinances were exclusively concerned with service at airports outside the city limits or with taxi trips to and from Mexico. This finding indicates that taxi companies could serve social services on a county-wide or even regional basis. Some cities do prohibit taxis from other cities operating as a public carrier in their jurisdiction, but this would not prevent contract services by a non-local taxi company.

3. Is group riding permitted in your city? All respondents indicated that this was permitted. Some cities do have ordinances concerning exclusive use of cabs or method of charging for extra passengers, but these regulations would not interfere with social service clients being transported in groups.

4. Can charges for taxi service be based on some method other than meter rates? Thirteen cities replied yes, fifteen replied no. Those that replied yes were generally smaller cities which determined taxi fares by zones rather than meters. A few cities also made provisions for charges on an hourly basis. It appears, however, that, in the majority of Texas cities, charges for services cannot be made on a flat contract rate. This situation poses a serious obstacle to the use of taxis for social service client transportation, as change in local ordinances would be required before contract services could be arranged in many cities.

5. Do you impose any relevant regulations on taxi insurance? Nineteen of the cities responding require taxi insurance at varying minimum coverage, while the other nine cities make no insurance requirements. Furthermore, all cities indicated that they would not raise or change these requirements if taxis were used to transport social service clients. Social service administrators are concerned with insurance coverage and should investigate a taxi company's coverage before signing a service agreement. Taxi owners would be wise to raise this issue early in contract negotiations to avoid possible conflicts on this issue.

6. Do you know of any other relevant regulatory agencies that would interfere with the establishment of such programs? All cities answered no to this question, although the Texas Railroad Commission and the Interstate Commerce Commission were mentioned by two respondents. These agencies,

however, regulate intercity public carriers and contract services for social service clients would not generally come under their jurisdiction.

7. Are there any programs of this type operating in your area? Only four cities indicated that there were such programs in operation in their city, while the remaining 24 cities replied no. These programs have been discussed elsewhere in the report.

8. Has any local interest been shown in changing any regulations to facilitate the establishment of such programs? Again only four cities replied yes, but it is interesting to note that they were not the same four cities that indicated there were special taxi services operating in their area. Houston responded that such programs were in operation but that there was no interest in changing local taxi ordinances. Wichita Falls indicated that there was interest in changing local regulations but that no special taxi services had been established there as of the present. Many cities in Texas impose vehicle restrictions on taxi operations, limiting them to operating automobiles equipped with specific features. Since it is often necessary or desirable to use vans in transporting social service clients, especially the handicapped, taxi operators in these cities will probably find it necessary to have these ordinances changed before they can successfully negotiate contracts with some social service agencies.

TYPICAL TAXI CODES

While none of the taxi codes studied can be considered typical, there are a number of major features common to most local taxi regulations. The codes commonly include sections on franchises, rates, service standards, drivers, and enforcement. Each of these features will be discussed in turn below as they typically appear in a comprehensive municipal code. The reader should remember, however, that not all of these elements appear in every taxicab code.

Local taxicab codes generally begin with a section defining key words used in the ordinances. Such words as driver, operator, street, taxicab, and taximeter are precisely defined so that there will be no misinterpretation of the regulations. These definitions are generally followed by several sections outlining the franchise agreement between a taxicab company and the city. These sections may include some or all of the following factors: requirement

of franchise, application, investigation of application, issuance, transfer of franchise, limits on number of cabs, suspension or revocation, and required records.

The next section of these codes usually discusses rates. Taxicab rates in Texas are fixed by the city and may be based on taximeters or zone charges. Where zones are used to determine fares, the zones and fares are outlined in the code. Most cities, however, require fares to be based on a taximeter. In these cities, the rates for various distances are set by the city and standards are generally included concerning inspections and tests and the standards for tolerances and accuracy of these meters. Regardless of the method used to determine rates, the posting of rates is usually required.

Another group of ordinances deal with service standards. Some of these regulations are concerned with protecting the rights of passengers, such as payment of fare, refusal to carry passengers, and prohibiting excess fares. Other features that may be included are prohibitions against soliciting and cruising, requirements concerning approval for the location of the place of business and taxicab stands, and regulations on advertising.

Most cities also include ordinances governing taxi drivers. The basic feature of this section is the requirement that drivers have a valid chauffeur's license. Other requirements which may be included deal with application for license, issuance, fee, term, transfer of license, display, and revocation or suspension of the chauffeur's license.

The final group of ordinances generally included are concerned with the enforcement of requirements. These are primarily concerned with the inspection of cabs for safety and numbering cabs for easy identification.

FINDINGS

The results of this survey indicate two major findings on the impact of local regulations on the ability to use taxis for social service transportation. The first finding is that in many Texas cities it may be necessary to change local ordinances governing taxi rates and vehicle requirements before taxi operators can successfully compete for social service client trips. The other finding is that there is a lack of communication and cooperation between some local regulatory agencies and taxi operators. The responses to the survey received from the cities of Houston and Lufkin indicated that the local regulators there were uninformed as to the activities of taxi companies in

those cities. The cities of Dallas and Fort Worth both expressed strong interest in working with local taxi operators to facilitate the establishment of new or innovative taxi services. Unfortunately, the responses from other cities indicated the attitude of other local regulatory agencies is often indifference and occasionally hostility. This situation must be rectified before taxis can play an expanded role in providing social service client transportation.

APPENDIX C

SELECTED ANNOTATED BIBLIOGRAPHY

APPENDIX C. SELECTED ANNOTATED BIBLIOGRAPHY

Cantilli, Edmund J., June L. Shmelzer, et al. (editors), Transportation and Aging: Selected Issues, U. S. Department of Health, Education, and Welfare, Washington, D. C., 1970.

This document includes a compilation of reports presented at the Workshop on Transportation and Aging held May 25-26, 1970, in Washington, D. C. The purpose of the workshop and this document was and is to provide "a body of information on mobility in the later phases of life." Topics for the individual reports vary widely. Included are research on the transportation needs of the elderly, descriptions and evaluations of selected operative systems, discussions of policy issues, and recommendations for future efforts.

Carp, Frances M., Correlates of Mobility Among Retired Persons, University of California Medical Center, San Francisco, California, 1975.

This report summarizes a study of retired persons living in an urban area investigating factors which influence their mobility. A total of 709 individual interviews of San Francisco residents provided the source of information. The major factors identified as influential of the degree of mobility were health, location of residence, and socio-economic factors.

Dougherty, Edmond J., A Study on Making Transportation Facilities Accessible to the Handicapped and Elderly, Franklin Institute Research Labs, June 1975 (PB-248-597).

This report summarizes a study of the accessibility of urban transportation to the handicapped and elderly. The stated objectives of the study include (1) to examine and categorize all physical barriers in the nation's various urban transit systems, (2) to identify and classify varying degrees of handicapped in terms of specific dysfunctions, (3) to propose and analyze cost of alternate solutions to each physical barrier, and (4) to structure a family of specifications identifying generic requirements for public facilities.

Hannan, William J., Jr., Anticipated Cost Per Trip for Various Modes by the Urban Handicapped, U. S. Department of Transportation, Transportation Systems Center, Cambridge, Massachusetts, September 1975.

This working paper addresses the question, "Which of the alternative modes of urban public transportation could satisfy the transportation needs of the physically handicapped most cost-effectively." This paper elaborates an earlier working paper of Dr. Howard Simkowitz. Simkowitz' equations are used here to determine the additional cost per handicapped rider trip of equipping a Transbus with lifts or ramps. Further variables are considered in the final analysis including type of service, population density, and dispersion of routes.

Hart, Kathy, How To . . . Set Up a Local Public Transportation Service in Your Community, Council of Fresno County Governments, Fresno, California, September 1975.

In recognition of the importance of transportation opportunities for Fresno residents, this report explains how to establish and maintain a transportation system. How to (1) estimate the cost of a system, (2) promote, (3) license, (4) subsidize a taxi system, and (5) obtain state and Federal funds are among the subjects discussed in detail. Samples of contracts, application and scheduling forms are included as appendices.

Harte, Traci, Transportation Systems for Human Service Recipients, Texas Department of Community Affairs, Austin, Texas, April 15, 1975.

This report summarizes five case studies of metropolitan or regional transportation systems. The case studies are intended to exemplify a range of transportation system types in terms of: size of the geographic area served, funding sources, clients served, and general administrative procedures. Recommendations are offered on how to establish a local transportation system.

Kirby, Ronald F., Kiran U. Bhatt, Michael A. Kemp, Robert G. McGillwray, and Martin Wohl, Para-Transit: Neglected Options for Urban Mobility, The Urban Institute, Washington, D. C.

The research summarized in this book was conducted under contract DOT-UT-20018 funded jointly by the Urban Mass Transportation Administration and the Federal Highway Administration of the U. S. Department of Transportation. The book reviews and evaluates the use and contribution of para-transit modes to urban travel needs and outlines recommendations for future action which would greater enhance the contribution of these modes. The second part of the book is comprised of seven chapters which support the arguments set forth. The principal para-transit modes are described, outlining the operational experience to date. Similarities and differences of the modes are identified. A final chapter discusses public regulation of para-transit modes and suggests changes of the legal structure.

League of Oregon Cities, Municipal Regulation of Taxicabs: A Survey of Practices in 59 Oregon Cities, League of Oregon Cities, Oregon, April 1967.

This brief report reviews current municipal regulation of taxicabs and effect on taxi service in the Oregon cities. Specific subjects discussed include legal citations, licensing, rate structure and fare collection, and inspection of vehicles. Tables summarize the major cities' legal regulations affecting taxicab service.

Markovitz, Joni K., "Transportation Needs of the Elderly," Traffic Quarterly, Volume 25, April 1971, pp 237-253.

This study investigates the transportation habits and needs of the elderly in the most intensely developed portions of New York, New Jersey, and Connecticut. Transportation for the elderly of the area (as identified by a 1963 survey) is examined on the basis of income and residential density. Trip purposes are also reviewed. Conclusions cite the factors influencing mobility of the population.

Mergel, Joseph J., and Lotnar Frenkel, Potential Nationwide Applicability of Transportation Services for the Elderly and Handicapped, U. S. Department of Transportation, Transportation Systems Center, Cambridge, Massachusetts, March 1975.

This is a working paper, prepared under DOT auspice, that attempts to specify the costs for a nationwide urban transportation system for this population. 1970 census population and cost data from selected transportation projects for the handicapped and elderly comprise the basis for the study and findings.

National Urban League, Transportation for the Elderly and Handicapped, National Technical Information Service, Springfield, Virginia, July 1973. Grant No. DOT-UT-533, U. S. Department of Transportation, Urban Mass Transportation Administration by Mark Battle Associates, Inc.

This report summarizes a ten-month study which included a total of 1084 respondents (867 elderly and 217 handicapped). The two principal purposes of the study were to explore the usage of transit by the elderly and the handicapped and to identify the major constraints to their use of mass transit systems. Conclusions were reported in six areas: transit usage, physical and psychological constraints, transportation costs, responsiveness of the transit system to travel needs, preferred and most used information sources, and service/system improvements.

North Central Texas Council of Governments, Transportation Options for the Elderly and the Handicapped, North Central Texas Council of Governments Transportation Department, Dallas, Texas, September 1976.

This report summarizes a study undertaken in the area of transportation for special populations. The purpose of the study was to identify the present transportation services available to the elderly and handicapped of the Dallas - Fort Worth urban areas. The available services were then compared to what was considered to be ideal transportation options for this population. Through this comparison specific areas were identified that could be improved to better facilitate service delivery. Particular constraints, including legal and financial, were taken into consideration in order to reach a "workable" plan for improvement.

Notess, C. B., and Robert E. Paaswell, Demand-Activated Transportation for the Elderly, American Society of Civil Engineers and the American Society of Mechanical Engineers, 1971.

This report summarizes a case study of the Buffalo, New York Model Neighborhood Area to evaluate elderly persons' frequency of travel and travel distinctions. Evaluation concentrated on the jitney service which provides free transportation for the elderly to points anywhere within four miles of the MNA. Conclusions emphasize the extent to which the elderly depend upon the jitneys for transportation.

Paaswell, Robert E., Charles B. Notess, and Mostafa Izadi, The Mobility of Inner City Residents, Department of Civil Engineering, State University of New York at Buffalo, Buffalo, New York, December 1970.

This report summarizes an April 1968 research effort undertaken by the authors. Three basic goals were involved: (1) to develop realistic quantitative measures of the effects of car ownership and transit service upon access to employment opportunities from the black community, (2) to analyze various techniques for overcoming statistical problems of aggregation commonly encountered in transportation studies, and (3) to apply measures to be used in the development of criteria used to evaluate the balance of a metro area transportation system. This report summarizes the progress attained in meeting the listed goals.

Paaswell, Robert E., and Wilfred W. Becker, Problems of the Carless--Final Report, Volume 1, Department of Civil Engineering, State University of New York at Buffalo, Buffalo, New York, September 1975.

This report summarizes a study of the problems encountered by those persons lacking access to an automobile. The major task of the study involved a survey of 401 respondents which sought basic household and demographic data as well as information on travel behavior and attitudes. The major findings of the survey are reported and discussed with respect to policy implications. A final section lists future needs and emphasizes the need to consider the carless population in urban planning.

President's Committee on Mental Retardation, Transportation and the Mentally Retarded, U. S. Department of Health, Education, and Welfare, Washington, D. C., June 1972 (Publication No. (OS) 72-40).

This report summarizes a survey and analysis of selected special transportation systems and programs for the mentally retarded. Specific problem areas of the systems are identified. Recommendations intended to help alleviate problems are offered. The stated purpose of the report is to "give informational guidance and provide future direction to those authorities who are designing transportation systems."

Remak, Roberta, Potential for Flexicab Services: Innovative Uses of Taxis and Jitneys for Public Transportation, Interplan Corporation, Santa Barbara, California, March 1975. Prepared for Department of Transportation, Transportation Systems Center (Contract No. DOT-TSC-748).

This report summarizes a nine-month investigation of the potential of taxis and jitneys for meeting current urban transportation needs. In addition, results are intended to encourage taxi systems to experiment with innovative services and local government to provide a "flexicab" system as a public transit option. Emphasis is placed on the value of taxis and jitneys to serve low density areas where typical mass transit modes are not cost efficient. Examples of how a multi-system flexicab system could operate in varying situations are offered. The present status of the taxi and jitney industry is reviewed and specific policy and research recommendations are made.

Revis, Joseph, Planning Handbook: Transportation Services for the Elderly, Institute of Public Administration, November 1975 (PB-247-958).

This is a handbook designed to aid in the planning and implementing of transportation services for the handicapped and/or the elderly. Technical assistance is provided for those persons who may become a part of establishing such a service but who may lack similar technical backgrounds. Specific topics include how to (1) get started, (2) build a sound data base, (3) design the service, (4) select the right equipment, (5) run the project, (6) put the budget together, (7) monitor and evaluate, (8) pay for the project, and (9) what problems to watch for.

Simkowitz, Howard, A Theoretical Comparison of Various Transit Modes for the Handicapped and Elderly, U. S. Department of Transportation, Transportation Systems Center, October 1974.

This study addresses the question, "Can public transit systems be modified for use by the handicapped and elderly or should separate systems be provided?" Determination of the issue is by cost/benefit analysis. Five service modes are considered, including bus, taxi, dial-a-ride, rapid rail (central business district) with special facilities, and line haul rapid rail with DAR or taxi feeder and distributor at each end.

Texas Municipal League, Taxicab Service in Texas Cities 1975, published by Texas Municipal League, June 1975.

This brief report revises a previous taxicab rate survey conducted in November 1972 by the Texas Municipal League. A total of 145 Texas cities contributed information and data included. Tables illustrate the data, emphasizing rate structures and trends of the taxicab services of each reporting city.

Transportation Research Board, National Academy of Sciences, Paratransit, Transportation Research Board Special Report 164, Washington, D. C., 1975.

This document includes the proceedings of a conference conducted by the Transportation Research Board and sponsored by the Urban Mass Transportation Administration held November 9-12, 1975. Workshop discussions and a number of papers contributed by professionals in the area of transportation form the basis for the findings and recommendations.

U. S. Department of Health, Education, and Welfare, Transportation Authorities in Federal Human Services Programs, Department of Health, Education, and Welfare, Region IV, Atlanta, Georgia, January 1976.

This report provides an inventory of the major Federal funding sources available for transportation of human service program clients. A total of eleven sources are identified and explained. The intended purpose of this report is to further enable human service providers to better meet the transportation needs of the clients.

U. S. Department of Transportation, Urban Mass Transportation Administration, Small City Transit Characteristics: An Overview, United States Department of Transportation, Urban Mass Transportation Administration, March 1976.

This report discusses information obtained from thirteen case studies of small community transit systems. The process by which a small community can respond to unmet transportation needs is set forth. Organizational, institutional, and operational aspects of each system are summarized. In addition, an analysis of various service, cost, and community response relationships is made. Although general conclusions are offered, it is emphasized that each community situation is unique and should be considered as such.

Webster, Arthur L., Edward Weiner, and John D. Wells, The Role of Taxicabs in Urban Transportation, U. S. Department of Transportation, Office of Transportation Planning Analysis, Washington, D. C., December 1974.

This report presents an overview of the taxicab industry. Subjects explored in detail include (1) characteristics of the taxicab industry, (2) characteristics of the taxicab rider and trip, (3) fare structure, (4) taxicab company operations emphasizing supply of operating costs and characteristics, (5) current uses of taxicabs and future potential, and (6) selected policy issues involving taxicabs. The last section outlines specific recommendations intended to help facilitate future contributions of the taxicab to urban mobility.

APPENDIX D

FEDERAL AND STATE FUNDING SOURCES FOR CLIENT TRANSPORTATION SERVICES IN THE DALLAS - FORT WORTH AREA

Reprinted from

Transportation Options For The Elderly And The Handicapped

North Central Texas Council of Governments

September 1976

TABLE D1.

MAJOR FEDERAL FUNDING SOURCES PROVIDING TRANSPORTATION SERVICES FOR THE ELDERLY AND HANDICAPPED

PROGRAM OR CATALOGUE	FEDERAL		STATE		LOCAL AGENCIES	ELIGIBILITY		TRANSPORTATION SERVICES	MATCH REQUIREMENT	AREA AGENCIES
	Agency	Regional Off.	Agency	Regional Dpt.		AGENCY	CLIENT			
Public Health Service Act, Title III, Sec.314 (d) Formula Grants (13.224)	Dept. of Health, Education and Welfare	Health Services Administration	Texas Dept. of Health Resources			State Health and/or mental health authorities are eligible upon approval of State plan	General Public	Transportation as the State provides for developing and strengthening public health	State share between 33% and 66% based on State per capita income $ 90,000,000	
Public Health Service Act, Title III Sec.314 (e) Project Grants (13.244)						State and local governments, any public or non-profit private agency	General Public	Addresses a full range of health services to meet special needs at the community level	Sliding scale on case by case basis	
Emergency Medical Services Act of 1973 (EMS) (13.284)						State, unit of local government, public entity administering regional compact or or public entity and non-profit private entity	Citizens of the area covered by grant on an emergency basis	Transportation is one of the fifteen (15) components of an Emergency Medical Services System	Section 1202; 0% Section 1203, 1204; 50% - year 1 25% - year 2 $ 37,000,000	John Peter Smith Hospital and Coalition of other county hospitals in western half of NCTCOG region
Rehabilitation Act of 1973 Basic Support Program (13.624)		Social and Rehabilitation Services Administration Dallas, Texas	Texas Rehabilitation Commission	Texas Rehabilitation Commission Regional offices Fort Worth, Tx and Dallas, Tx	Coordinates services with Texas Dept. Corrections, Social Security Adm., Goodwill Ind., Texas Employment Commission, MHMR, Tx Dept. Public Welfare	TRC designated as sole agency to administer vocational rehabilitation program	Presence of a substantial mental disability or physical handicap to employment with employment potentiality	Cover costs to provide rehabilitation services including cost of transportation to secure services	None $ 680,000,000	
Social Security Act as Amended in 1965 Beneficiary Rehabilitation (13.625)						State Operating under Sec. 101 of Rehabilitation Act of 1973	Disability beneficiaries for when it is determined that there exists vocational rehabilitation potential for their return to gainful employment	Transportation is one the costs of providing vocational rehabilitation services to selected disabled beneficiaries	None $ 101,000,000	

(continued)

TABLE D1. (Continued)

MAJOR FEDERAL FUNDING SOURCES PROVIDING TRANSPORTATION SERVICES FOR THE ELDERLY AND HANDICAPPED

PROGRAM OR CATALOGUE	FEDERAL		STATE		LOCAL AGENCIES	ELIGIBILITY		TRANSPORTATION SERVICES	MATCH REQUIREMENT	AREA AGENCIES
	Agency	Regional Off.	Agency	Regional Dpt.		AGENCY	CLIENT			
Rehabilitation Act of 1973 Rehabilitation Services Projects (13.626)	Dept of Health, Education & Welfare	Social and Rehabilitation Services Administration Dallas, Texas	Texas Rehabilitation Commission	Texas Rehabilitation Commission Regional offices Dallas, Texas	Coordinates services with Texas Dept. of Corrections, Social Security Adm., Goodwill inc., Texas Employment Commission, MHMR, Texas Dept. Public Welfare	State vocational rehabilitation agencies and public or non-profit organizations	Physically or mentally or emotionally handicapped persons with emphasis on those with most severe disabilities	Transportation may be provided for it if improves or expands services for the mentally and physically handicapped over and above 13.625	90% - 10% Maximum Depretivity $ 13,400,000	
Older Americans Act of 1965, as Amended Title III, except section 305 (13.633)		Office of Human Development Dallas, Texas	Governor's Committee on Aging	Area Agency on Aging		Area agencies on aging must have approved plan under the State plan	Older persons, especially low income and minority older persons	Program provides for general social services among which transportation may be included	90% - 10% Social Service $ 82,000,000	
Older Americans Act of 1965, as Amended Title III, Model Projects (13.634)						Any public or non-profit agency engaged in activities related to serving the needs of older people on the field of aging	All Americans, 65 years of age and older	Develop new services and new patterns of service to older people's opportunity for social participation	None $ 7,000,000	Stephenville Senior Citizens, Inc. (13.609) "Referral Transportation Escort Service"
Older Americans Act of 1965, as Amended Title VII, Nutrition (13.635)					Community Centers	Local projects must provide a hot meal at least once per day, five or more days a week to eligible persons	Older persons aged 60 or over and their spouses, especially low income and minority older persons	Transportation to and from nutrition centers is one of a range of social services provided to the extent they are needed and not available to participants	90% - 10% Federal - State $ 123,750,000	Region 8: Visiting Nurse Assoc., Comm. Action Agency (Dallas)
Medicaid Title XIX Security Act as Amended (13.714)		Social and Rehabilitation Services Adm. Dallas, Texas	Texas Dept. of Public Welfare	TDPW Region 8, Dallas, Tx TDPW Region 9, Fort Worth, Tx	County offices of Texas Dept. of Public Welfare	State and local agencies operate under approved DHEW State Plan	Any needy individual may apply for medical assistance	Transportation to medical services for medically needy	83% - 17% to 50% - 50% State share depends on per capita income	Region 9: CITRAN, Fort Worth area Council of Ch., Transportation Enterprises, Kiwanis Club, City of Cleburne

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TABLE D1. (Continued)

MAJOR FEDERAL FUNDING SOURCES PROVIDING TRANSPORTATION SERVICES FOR THE ELDERLY AND HANDICAPPED

PROGRAM OR CATALOGUE	FEDERAL		STATE		LOCAL AGENCIES	ELIGIBILITY		TRANSPORTATION SERVICES	MATCH REQUIREMENT	AREA AGENCIES
	Agency	Regional Off.	Agency	Regional Dpt.		AGENCY	CLIENT			
Public Assistance - Social Services (13.754)	Dept. of Health, Education and Welfare	Social and Rehabilitation Services Adm. Dallas, Texas	Texas Dept. of Public Welfare			Applications are made in the form of a State plan		Social service programs to enable persons to attain or retain the capability to maintain self-sufficiency	75% - 25% Federal - State $1,948,000,000	
Housing and Community Development Act of 1974 Title I Community Development (14.218)	HUD	Community Planning and Development				Local governments in urbanized areas	Low and moderate income	Projects which will expand economic opportunities and provide suitable living environment for low & moderate income	Entitlement formula $2,550,000,000	
Comprehensive Employment and Training Act (CETA) (17.232)	Department of Labor	Regional Manpower office Dallas, Texas			City, county or combination of local governments	States, local governments or consortio of local government unit totaling 100,000 popu-	Economically disadvantaged, unemployed or underemployed persons	Persons funded under the CETA program may be used as drivers in elderly transportation programs	0% Titles I, II, VI $3,005,000,000	
Senior Community Service Employment Program, Title IX (17.285)						State and local governments and private non-profit organizations (renewal emphasis)	55 years of age and older with poor employment prospects	Pays for necessary transportation costs of eligible individuals which may be incurred in project employment	90% - 10% Federal - State $ 30,000,000	
Capital Improvement Grants (20.500)	Department of Transportation	UMTA	SDH&PT Commission		City transit companies or other organizations	Public agencies; private transportation companies on contract with public agency guarantee	General Public	Provides capital purchases for an efficient and coordinated mass transit system	20% Local $1,346,500,000	City of Dallas
Urban Mass Transportation Act of 1964 Technical Studies (20.505)						State and Local public bodies and agencies		Preparation of long-range transportation plans and short-range transportation improvement programs	20% Local $ 51,000,000	

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TABLE D1. (Continued)

MAJOR FEDERAL FUNDING SOURCES PROVIDING TRANSPORTATION SERVICES FOR THE ELDERLY AND HANDICAPPED

PROGRAM OR CATALOGUE	FEDERAL		STATE		LOCAL AGENCIES	ELIGIBILITY		TRANSPORTATION SERVICES	MATCH REQUIREMENT	AREA AGENCIES
	Agency	Regional Off.	Agency	Regional Dpt		AGENCY	CLIENT			
Urban Mass Transportation Act of 1964 Transportation Demonstration Grants (20.506)	Department of Transportation	UMTA	SDH&PT Commission			Anyone	General Public	New facilities, equipment techniques and methods to reduce urban transportation problems and improve mass transportation service	0% - 5% Range $ 11,540,000	
Urban Mass Transportation Act of 1964 Capital Assistance Formula Grants (20.507)						Urbanized areas where government, local offices and operators of public transit services		Projects are to be developed through a unified and coordinated urban transportation system	20% - 50% Local $ 625,000,000	
Community Services Act of 1974, Title II Senior Opportunities and Services (SOS) Sec. 222(a) (7) (49.010)	Community Service Adm.	Office of Economic Opportunity Dallas, Texas			Community Action Agencies should review and comment	Community Action Agencies and single purpose agencies	Focus on needs of low income and 60 years or older-maximize job opportunities for those 55 years or older	Provide transportation and other services to facilitate the use of public service and other activities to meet the needs of the older people	20% Local Share $0	
Community Services Act of 1974, Title II Community Action (49.002)		Regional Office of Community Services Adm. Dallas, Texas	Texas Office of Economic Opportunity Austin, Texas		Community Action Agencies		Low income families and individuals of all ages	Broad social services among which transportation could be listed	30% ('76) 40% ('77) $ 330,000,000	
Community Services Act of 1964 , Title II Community Food and Nutrition Sec.222(a)(5) (49.002)					Any non-profit or public agency or organization	Any non-profit agency or organization who can mobilize community resources for continuing programs		Transportation is provided for a broad range of elderly and handicapped services "seed" or "start up" programs	0% $ 22,400,000	
Blind Veteran Rehabilitation Centers (64.007)	Veterans' Adm.	Department of Medicine and			V.A. Hospitals or outpatient clinics	V.A. Hospitals or outpatient clinics	Service-related disability or a veteran unable to pay medical costs. Dependents not eligible	Transportation and dental expenses to defray costs incurred by eligible veterans if ordered to V.A. Hospital	0% $ 2,131,000	

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TABLE D1. (Continued)

MAJOR FEDERAL FUNDING SOURCES PROVIDING TRANSPORTATION SERVICES FOR THE ELDERLY AND HANDICAPPED

PROGRAM OR CATALOGUE	FEDERAL		STATE		LOCAL AGENCIES	ELIGIBILITY		TRANSPORTATION SERVICES	MATCH REQUIREMENT	AREA AGENCIES
	Agency	Regional Off.	Agency	Regional Dpt.		AGENCY	CLIENT			
Veterans' Domiciliary Care (64.008)	Veterans' Adm.	Department of Medicine and Surgery		Regional V.A. office	Local V.A. offices	Local V.A. offices			0% $ 54,184,000	
Veterans' Hospitalization (64.009)					V.A. Hospitals or outpatient clinics	V.A. Hospitals or outpatient clinics	Service-related disability or a veteran unable to pay medical costs	Transportation and incidental expenses to defray costs incurred by eligible veterans if ordered to V.A. Hospital	0% $2,457,596,000	
Veterans' Outpatient Care (64.011)									0% $ 688,966,000	
Automobiles and Adaptive Equipment (64.100)	Veterans' Adm. Title 38	Department of Veterans			Local V.A. office	Local V.A. office	Service connected disability due to loss of use of one or both feet, hands or eyes to prescribed degree	One time purchase of car or adaptive equipment for use in operating transportation modes	0% $ 21,150,000	
Foster Grandparents Programs (72.001)	ACTION	Older Americans Volunteer Programs	Governor's Commission on the Aging	Area agency on aging	Community action agency (preferred)	Any public or non-profit organization not utilizing foster grandparent services	60 years or over; income below OEO poverty level; capable of serving children	Transportation is reimbursable to participants	10% Local $ 25,930,000	
Retired Senior Volunteer Program (72.002)		Regional ACTION				Any public or non-profit organization			10% - 50% over 5 years $ 17,395,000	Denton State School
Senior Corps of Retired Executives (72.006)		Regional ACTION office or small business administration			Small business and not-for-profit community organization	Specific qualifications depend upon needs	Retired and semi-retired business people	Out-of-pocket costs to participatns are reimbursed	0% $ 400,000	

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TABLE D1. (Continued)

MAJOR FEDERAL FUNDING SOURCES PROVIDING TRANSPORTATION SERVICES FOR THE ELDERLY AND HANDICAPPED

PROGRAM OR CATALOGUE	FEDERAL		STATE		LOCAL AGENCIES	ELIGIBILITY		TRANSPORTATION SERVICES	MATCH REQUIREMENT	AREA AGENCIES
	Agency	Regional Off.	Agency	Regional Dpt.		AGENCY	CLIENT			
Senior Companion Program (72.008)	ACTION	Regional Older Americans Volunteer Programs Coordination	Governor's Commission on Aging	Area Agency on Aging	Community Action Agency (preferred)	A public or non-profit agency which are not utilizing the Senior Companion Services	60 years or older; Income below OEO poverty level capable of serving older persons	Transportation is furnished or reimbursed to the volunteers	$7,766,000,000 0% $ 1,640,000	
State and Fiscal Assistance Act of 1972	Revenue Sharing					Local governments	General Public	Broad range of municipal services		