

PUBLIC TRANSIT OWNERSHIP AND OPERATION OPTIONS  
FOR SMALL URBAN AND RURAL AREAS IN U.S.

by

John Collura

Associate Professor

Civil Engineering Department

University of Massachusetts/Amherst

Amherst, MA 01003

1.0 ABSTRACT

Public transportation services in rural and small urban areas of the U.S. have several common characteristics. These services are important to a broad spectrum of public agencies, are usually multijurisdictional, are established to meet a variety of special transportation needs, and are extremely dependent on financial support from sources other than fares.

Ownership means holding titles to vehicles and related equipment and facilities. Operations are the day-to-day activities such as scheduling drivers, dispatching services, and maintaining vehicles. The most common ownership and operations options are (a) publicly owned and operated, (b) publicly owned and privately operated, and (c) privately owned and operated. In some cases a publicly owned and operated system may also use a private company to manage day-to-day operations. Also, some privately owned and operated systems are publicly subsidized.

Public ownership options often allow greater orientation toward service to the entire public and may offer a better position for short- and long-term planning, which may lead to greater coordination and consolidation of transportation services. Public ownership can take advantage of tax exemptions and may eliminate state public utility commission involvement in routes and fares. On the other hand, public ownership may entail political interference that affects management and operations, especially where the service is publicly operated, and financing may be difficult during times of fiscal austerity. Public ownership may not be suitable in some areas because it requires a public entity to be involved in a function with which it has little experience. The degree to which the various advantages and disadvantages of public ownership occur is affected by the type of public ownership (city, county, or authority).

Private ownership usually allows easier implementation of new service. Because public employees are not involved, there tends to be less potential for political interference. Where service is publicly subsidized, there will be a need for a public official to administer the contract and monitor the service. Private ownership may not be able to take full advantage of local, state, and federal tax exemptions.

Before evaluating the various ownership and operation options, three questions should be answered: (a) What are the public transportation needs? (b) Should public funds be used to meet those needs and, if so, what funds are available? and (c) Do current laws permit creation of special organizations, such as authorities?

The evaluation of options should include a preliminary study of costs, especially those related to personnel, and the noncost factors, such as coordination of services, potential for political interference, time to implement the option, and problems of adding employees to a public payroll. The paper presents a framework for formulating and evaluating the options through use of a flow chart and a set of matrices. Finally, it is recommended that a systematic study be conducted to examine the relationship of the ownership/operation

tion option to overall system efficiency and effectiveness in small urban and rural areas.

## 2.0 PUBLIC TRANSPORTATION IN SMALL URBAN AND RURAL AREAS

The general problems, issues, and concerns regarding the provision of public transportation services in rural and small urban areas are well documented (1, 2, 3, 4). A review of this literature indicates that there are several major characteristics of such services, which should be clearly understood, in order to ensure that proper planning and implementation are carried out, and, specifically, that appropriate ownership and operation options are considered.

One characteristic is that services are of extreme importance to a broad spectrum of public agencies from all levels of government, many of which are concerned primarily with basic human needs. Consequently, a number of efforts have been initiated to coordinate the work of these agencies, based on the assumption that these coordinated efforts would prove to be more fruitful and productive, and lead to the provision of more effective and efficient transportation services (5, 6, 7, 8). Though experience has shown this to be true in a number of instances, there are certain barriers which have to be overcome to make a coordinated effort a success (9). Some ownership and operation options, if feasible, provide the necessary authority and flexibility required to deal with these barriers, and, thus, the time and money committed to the effort may prove to be worthwhile.

Another characteristic is that services like those in major metropolitan areas are usually multijurisdictional, that is, they are often provided to more than one city, town, and county. As a result, this has led to the creation of organizational entities, such as regional transit authorities, which represent all jurisdictions and often own and sometimes operate the services. This entity also facilitates the need to allocate various costs to each jurisdiction to ensure that the different jurisdictions are paying their "fair share". This allocation of costs requires that reliable data be tabulated and maintained on expenses, and in some cases, on ridership. This data gathering exercise would be most likely a responsibility of the owner and/or the operator.

A third characteristic is that these services are established to meet a variety of special transportation needs, particularly those of individuals without access to an automobile, such as elderly, low income, and handicapped persons. Moreover, it is apparent that no one type of public transportation will meet all these needs and that some combination is essential. Examples of the different types include local bus (10, 11), intercity bus (12, 13, 14), taxi (15, 16, 17, 18), chaircar (19), and human service agency services (20). Recently other types have been investigated including the integration of the postal bus (21) and the school bus (22, 23) with regular public transportation, employer/employee based vanpools (24) and mobility clubs (25). Some of these services are owned and/or operated by private-for-profit and non-profit entities, while others may be offered by public agencies.

Finally, a fourth characteristic of these services is that they are extremely dependent upon financial support from sources other than fares paid by users (26). Therefore, a concerted effort must be made to determine what sources are available. Because some sources require that funds be used only to support certain expenses incurred by specific types of owners and operators, it is essential that all funding requirements be identified, and that ownership and operation options be considered accordingly.

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The overall intent of this paper is to provide guidance to transportation decisionmakers, administrators, and analysts in rural and small urban areas in the selection of public transportation ownership and operation options. As suggested above, this selection will be related to the types of public agencies involved, the number of local political jurisdictions served, the funding sources utilized, the needs met, the types of services provided, and the availability of operators required.

## 3.0 OWNERSHIP AND OPERATION OPTIONS

Two major responsibilities in the provision of public transportation services are ownership and operation. Ownership relates to the responsibility of holding titles and other legal documents to vehicles and related equipment and facilities. Operational responsibilities are day-to-day activities such as scheduling drivers, maintaining vehicles, and dispatching vehicles. Other important responsibilities include policy-making (e.g., setting fares, routes, and schedules), administration (e.g., monitoring and evaluating service), and overall management (e.g., supervising the day-to-day activities). More detailed discussions on these responsibilities and various ownership and operation options are presented in other sources (27, 28, 29).

Alternative Options for Small Urban and Rural Areas

A variety of organizational options have been utilized in the provision of public transportation services in small urban and rural areas. While some options include a single entity, others combine two or more entities which in some way share the major responsibilities of providing the service. These entities have generally included the following:

- a city or town
- a county
- a local transit authority or district
- a regional transit authority or district
- a regional planning agency
- a state agency
- a cooperative or consortium
- a public utility company
- a human service agency
- a private-non-profit operator
- a private-for-profit operator
- a private transit management company

As can be observed, some of these entities fall into the public sector, and other entities are members of the private sector.

This section describes and compares the most common ownership and operation options which have been used in small urban and rural areas. Each option is identified in terms of the entity or entities involved as well as the entity's general role and responsibilities in ownership and operations and the related areas of policymaking, administration, and management. Whenever possible, examples of small urban and rural areas which have utilized such options will be cited.

These options can be categorized into one of three groups: (1) publicly owned and operated, (2) publicly owned and privately operated, and (3) privately owned and operated. Based on a recent survey conducted by the International City Management Association (ICMA), 808 of 1050 respondents (or 77.0%) indicated that public transit services in their area were publicly owned and operated. Of the remaining respondents, 80 or 7.6% reported that services were publicly owned and privately operated, and 162 or 15.4% stated

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that privately owned and operated services were currently provided. Each respondent represented a city or town with a population less than 50,000 or a county with a population less than 250,000.

Option 1A: City- or Town-Owned and -Operated

Cities and towns have played an increasing role in public transportation, particularly, since the early seventies. Of the 808 publicly owned and operated services reported in the ICMA survey, some 152 or 18.8% were city or town owned and operated. Examples of such cities and towns include Chapel Hill, North Carolina; New Castle, Pennsylvania; Sheboygan, Wisconsin; and Arcata, California.

Typically, the local policy board, such as a city council or board of selectmen, has assumed the entire responsibility of ensuring that adequate public transportation services are offered. In this option the local policy board would have the policymaking and ownership roles and would usually delegate the administrative, management, and operational roles to a local transit (or transportation) administrator. The administrator would oversee the operations staff (e.g., operations supervisor, drivers, dispatchers) who are directly responsible for carrying out the day-to-day operating activities. The administrator and his or her support personnel and all operational staff would be local public employees.

A variation to this option would be the utilization of a private transit management company whose responsibility would be to manage the day-to-day operations. This company would be hired on a contractual basis for possibly one or more years. Consideration is often given to negotiating such a contract with provisions which give the company an incentive to function in an effective and efficient manner. The operational staff would still be local public employees. The management company would work directly with the local transit administrator or the city or town manager or mayor who would respond.

Option 1B: County-Owned and -Operated

Like cities and towns, counties in rural areas have assumed the overall responsibility of offering public transportation to its residents. Some 110 (or 13.7%) of the 808 publicly owned and operated systems in the ICMA survey were county owned and operated. Examples are Nevada County, California; Collier County, Florida; Linn County, Iowa; and Washington County, Maryland.

The policymaking and ownership responsibilities in this option would be under the control of the county policy board, such as the county commission. The administrative, management, and operational responsibilities would be given to the county transit (or transportation) administrator. As in the case of Option 1A, all administrative and operational personnel would be public employees, in this case, county employees. For management purposes, a private company could possibly be employed. This company would respond to either the county transit administrator or the chief administrative officer, such as the county manager.

Option 1C: LTA-Owned and -Operated

Local transit authorities (LTAs) or districts are public entities created specifically for the purpose of ensuring that adequate public transportation is provided to a city or town and possibly the immediate, surrounding area. The LTA would usually have the policymaking and ownership responsibilities and would be made up of persons who are either local elected officials or designated appointees of such officials (30). The LTA, depending on State

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Law and local ordinances, may have taxing, bonding, and other forms of authority.

An LTA administrator would be responsible for administrative, management, and operational matters. All administrative and operational personnel would be public employees of the LTA. Similar to that of Options 1A and 2A, a private management company could be hired to perform the overall management.

Option 1D: RTA-Owned and -Operated

Regional transit authorities (RTAs) or districts are multijurisdictional, public entities created to ensure that public transportation services are offered to a group of cities, towns, and/or counties. Like the LTA in Option 1C, the RTA establishes policy; usually has taxing, bonding, and other powers; and owns and operates services. The organizational arrangement of this option is comparable to that of Option 1C. All administrative and operational staff would be employed by the RTA. Of the 808 publicly owned and operated systems, 483 or 59.8% were LTA or RTA owned and operated. Transit Authorities are very common in California, Massachusetts, Pennsylvania, and Connecticut, according to the results of the ICMA survey.

Option 2A: City- or Town-Owned and Privately-Operated

This option is the same as Option 1A, except the city or town does not operate the service. Rather than employ its own operational personnel, the city contracts with either a local private operator or a private management company. Forty (or 50%) of the 80 ICMA publicly owned and privately operated systems are city owned and privately operated. Examples include Marshalltown, Iowa; Hot Springs, Arkansas; Biddeford, Maine; Jamestown, New York; Monroe, Michigan; and Missoula, Montana. The latter three examples are operated by private management companies.

In this option the only public employees involved in transit would then be primarily the local, administrative staff. The local policy board would still be the transit policymaking unit and would own vehicles, facilities, and related equipment which would be leased in the contract to the private operators. These operators could possibly be private-for-profit operators such as a local fixed route, fixed schedule, bus company, a private management company, or a taxi company, or a private-non-profit operator associated with a local, human service agency. It should be noted that such operators might own vehicles and other equipment. If such equipment is used in services under contract with the city or town, the manner in which service is offered is under the control of the city or town. It is also worth pointing out that vehicles owned by the operators could very possibly be used for services which are not supplied under contract with the city or town. Examples of such services would be exclusive ride taxi service offered by the taxi company, charter and school bus services operated by the bus company, and human service agency services provided by private-non-profit operators.

Option 2B: County-Owned and Privately-Operated

This option is the same as Option 1B, except that the county does not operate the service. Instead, the county contracts for services similar to the way the city or town contracts in Option 2A. The county policy board still acts as the transit policymaking body, and the county employs only administrative personnel for transit matters. Of the 80 ICMA publicly owned and privately operated systems, 10 or 12.5% are of this type. Some of these counties are Stanislaus County, California; Escambia, Florida; and Lenawee, Michigan.

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Option 2C: LTA-Owned and Privately-Operated

Like Option 1C, the LTA would have the policymaking and ownership responsibilities in this option. However, the services would be operated by private operators under contract as in Options 2A and 2B. Only administrative personnel are usually employed directly by the LTA. LTA owned and privately operated services exist in Raleigh, Winston-Salem, and Asheville, North Carolina.

Option 2D: RTA-Owned and Privately-Operated

As in Option 1D, this option uses the RTA as the policymaking and ownership body, and like Options 2A, 2B, and 2C, includes private entities to handle the management and day-to-day operating activities. This option is utilized in some states, such as in Massachusetts, because the RTA is prohibited by law to operate service (31). About one-third of the 80 ICMA publicly owned and privately operated services were owned by LTAs and RTAs and privately operated. Examples include the Pioneer Valley Regional Transit Authority, Massachusetts; and the Area Transportation Authority of North Central Pennsylvania.

The RTA staff in this option performs primarily an administrative function. Like the county in Option 2B, and to possibly a lesser degree the LTA in Option 2C and the city or town in Option 2A, the RTA attempts to "coordinate" regionwide services for both the general public at large, as well as for special population groups such as the elderly or handicapped. These coordinated services could take a variety of forms. For example, an RTA might purchase 5 ten-passenger vans and lease them to a private-non-profit operator who would offer service under contract with the RTA to Town Councils on Aging in six different towns on designated days and during specified times for a particular trip purpose (e.g., medical trips, nutrition trips). The manner of payment for such services is often negotiated between the RTA and the Councils before the service is actually delivered (32, 33). The Council might pay on the basis of some pre-established rate per unit of service (say, per passenger trip), with the rider possibly paying a portion of the cost "out of pocket". This "coordinated service" could have also been operated by a private-for-profit taxi company or group of companies with the use of tickets or some type of voucher.

Option 3: Privately-Owned and Privately-Operated

Although the trend in many small urban and rural areas has been toward public ownership, privately owned and privately operated services still exist. Some of these services receive no direct public financial assistance, while other privately owned and operated services do obtain some form of direct public subsidy. Those services which are not typically subsidized directly include, for example, an employer-sponsored vanpool service or an intercity bus company providing service within a rural region (possibly to and from an urbanized area). Another, less common example is a public utilities company operating a local bus service. Such services are in existence in the cities of Durham and Greensboro, North Carolina; and Anderson and Spartanburg, South Carolina. All four are owned and operated by Duke Power Company. Another example might be an exclusive ride taxi service which is offered in many small urban areas. The only public involvement in the above services is the regulatory control of a state public utilities commission, in the case of the intercity and local bus services, and the local policy board in the provision of taxi service.

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Examples of those services which are directly subsidized may be of two general types: 1) private-for-profit, and 2) private-non-profit. Such private-for-profit operators might receive either capital or operating subsidies, or both. These subsidies are negotiated through contractual agreements between the operator and some type of public or private entity which plays primarily an administrative role. Administrative entities on the public side often include local governments such as cities, towns, and counties, and sometimes, regional planning agencies (RPAs), and state agencies. RPAs are used in several rural regions of Iowa. In Texas the State Transportation Commission administers such contracts, in some cases, with the assistance of RPAs.

On the private side, this administrative role could be assumed by a non-profit human service agency or even a cooperative or consortium. These private-non-profit groups were considered in a regional area of Western Massachusetts (19). A human service agency is an organization which assists various segments of the population in meeting basic human needs. An example is a local Council on Aging. A cooperative is a legal entity which often sells shares to members who determine the way service is to be provided. Cooperatives were commonly used during the Office of Economic Opportunity (OEO) program in the late '60s. A consortium is not necessarily a legal entity, but is typically created through an interagency agreement. The agreement defines roles, responsibilities, and objectives of the consortium.

The primary responsibility of this administrative unit, public or private, is to monitor the contract with the private operator or operators. Some of these contracts may be simple, such as that between a city and a local bus company. Typically, such a contract would either guarantee a fixed operating ratio of gross expense to gross revenue or a certain percentage profit based on gross revenue, or a fixed fee. A more complicated contract might be negotiated between a HSA and a private operator such as a taxi company. The HSA might sell, at a minimal cost, tickets (or coupons) to its clients which the clients can use to ride the taxi at a reduced rate. The difference in the price the client pays and the normal price would be paid by the HSA in some manner, as specified in the agreement. It is also worth noting that this service could have been delivered by a private-non-profit operator, rather than a taxi operator which often operates for a profit.

#### Potential Advantages and Disadvantages of Various Options

Inherent in each of the options presented are certain advantages and disadvantages which will likely come into play when options are being considered for implementation.

#### Public Ownership (Options 1 and 2)

A major factor related to an option's appropriateness or desirability is whether the ownership responsibilities are those of a public entity or private entity. Options 1 and 2 both involve a public entity which has the ownership responsibilities, as well as policymaking duties, and as a result tend to be options which allow for greater orientation toward service to the "entire public." In addition, these publicly owned options often offer a more sound position to perform short-range and long-range planning and, consequently, may lead to a greater opportunity to consolidate and coordinate transportation services, both transit and non-transit (e.g., human services), which may be of primary interest to the policymaking body. Some forms of public ownership also usually take full advantage of local, state, and federal tax exemptions and make some federal and state funds directly available for supporting capital and operating costs. Finally, public ownership may

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eliminate the need to have the State Public Utilities Commission involved in the economic regulation of routes and rates, and as a result service changes and experimental improvements can be implemented in less time, and local and/or regional transit objectives can be accomplished more easily.

Of course, as one would expect, public ownership may carry various disadvantages which would lead some to believe that it is undesirable. One such disadvantage is that potential political interference may adversely affect the management and operations of service, particularly in Options 1A, 1B, 1C, and 1D in which all responsibilities of providing transit service fall into the public domain. This disadvantage may be mitigated by hiring a private management company, or by implementing Option 2A, 2B, 2C, or 2D, all of which delegate the management and operations of service to private entities. During an era of fiscal austerity at all levels of government, the support for necessary capital outlays, and public ownership in general, may be extremely difficult to obtain, and, furthermore, once the necessary broad-based support is generated, this may in turn lead to potential system inefficiencies due to politically motivated pressures for unwarranted services. Finally, public ownership in some small urban and rural areas may not be considered suitable because it requires a public entity to become directly involved in a function with which it has had little experience. This disadvantage (like several others) could be diminished some if a private management company is hired, or if private operators are utilized, as described in Options 2A, 2B, 2C, and 2D. Other advantages of private management companies include the potential to make bulk purchases, acquire group insurance for personnel and vehicular needs, and coordinate accounting and other administrative activities.

City or County-Owned (Options 1A, 1B, 2A, and 2B)

In addition to the advantages and disadvantages discussed above, the specific public entity which owns the service may also have a bearing on an option's desirability. In Options 1A, 1B, 2A, and 2B in which the city or county assumes ownership, it may be easier to unify various transit activities with similar ongoing governmental activities. For example, the maintenance of buses or vans could be carried out in local or county garages or shops by local or county personnel, assuming that transit needs and concerns receive equal treatment and are not considered secondary to public works, police, and other local maintenance needs.

In terms of financing, a city, town, or county may be in a better position to secure funds from a local lending institution, rather than through bond purchase by outsiders, as might be the case with a transit authority. It may also be advantageous for the city, town, or county to have ownership rights, since each jurisdiction likely has a well-defined constituency, as opposed to a transit district which may include only part of a city, town, or county. Others may perceive the city, town, or county as being more appropriate than a transit authority because the local consensus is that there is no need to create another governmental policy board, which may contribute to fragmentation and undesirable decentralization of local and county decisionmaking.

It may also be agreed upon by local and/or county elected officials that it is more desirable (over the short term) to own the services initially, and to determine at some later date whether there is a need to form another public entity such as a local or regional transit authority. This approach was, in fact, taken in the late seventies in Franklin and Berkshire Counties in Massachusetts. Both County Commissions decided to assume the responsibility



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of providing transit services under the FHWA Section 147 Program, and subsequently initiated the development of RTAs to be responsible for regional transit service.

On the negative side of city, town, or county ownership, you may have to include transit employees under civil service, and, therefore, salaries and benefits equal to those paid to city and county employees may be necessary. This disadvantage is even more serious in Options 1A and 1B which includes all administrative and operations personnel as city, town, or county employees. In addition, county-owned services may require the development of service or tax zones to associate levels of service or usage equitably and fairly to financial commitment. If this is believed to be too complicated, and as a result the city or town assumes ownership responsibilities, surrounding cities and towns and outlying areas in the county would have little input in the provision of service.

LTA- and RTA-Owned (Options 1C, 1D, 2C, and 2D)

Associated with LTA- and RTA-owned services are additional advantages and disadvantages due largely to the organizational and legal characteristics of an authority or district. Some perceive an advantage of an LTA or RTA to be the elimination of the need for the city, town, and/or county policy boards to assume transit policymaking and ownership responsibilities. Where that enabling legislation exists, LTAs and RTAs are fairly simple to create. LTAs and RTAs are often granted powers such as taxing and borrowing. RTAs offer an organizational entity which facilitates the coordinated efforts of groups of cities, towns, and counties trying to meet their transit needs cooperatively.

Of course, being involved in creating any new public agency such as an RTA or LTA in the eighties will not be an easy chore. An aggressive public information program may be essential. In order to obtain proper representation on an authority, particularly an RTA, a large policy board may be necessary; and in the case of an LTA, jurisdictions surrounding the local area may not be given adequate opportunity to express their attitudes and desires regarding the provision of service. It should be noted that it may be considered more reasonable to create an LTA at the outset, and at a later time, explore the need for and merits and shortcomings of a multijurisdictional entity, such as an RTA.

Privately-Owned and Operated and Publicly Subsidized (Option 3)

One advantage of this option, compared to an option involving public ownership, relates to the ease with which service can be implemented. For example, usually, in this option there may be no need to order and purchase new vehicles with public funds, because private owners and operators have the necessary vehicles, and are in fact providing services along a major corridor primarily for charter or package delivery purposes. This option was utilized by the public transit agency in Harlingen, Texas and Valley Transit Co., Inc. The subsidy for passenger service would be provided through a contract as discussed earlier in the review of Option 3.

Another advantage inherent in this option is that there are fewer, if any, public employees who are involved full time. Furthermore, there is little to no involvement on a regular basis of a public agency, and consequently, there is less potential for political interference. Additionally, as in the case of publicly owned and privately operated services, this option minimizes the need for a public entity to deal directly with organized labor groups.

The significance of these advantages depends in part on the provisions in the contract. For example, if a fixed route fixed schedule bus operator is paid a flat fee, regardless of the number of persons carried, then there really is limited incentive (except for the concern for a contract renewal) for the operator to perform effectively or efficiently. In addition, it may be extremely difficult for service charges to be made, unless such provision is included in the contract to allow for these changes in a simple and expeditious manner.

Potential disadvantages include the need for a public official to spend some time administering the contract and monitoring and evaluating services. This time, however, will be significantly less than in Options 1 and 2. In addition, private owners and operators may not be in a position to take full advantage of various tax exemptions. Finally, as in the case of publicly owned and privately operated services, contracts have to be negotiated regularly, and consequently, service could be discontinued either permanently or temporarily at the end of each contract period. This is significant in rural and small urban areas, particularly in those areas in which only one such operator exists.

#### 4.0 A FRAMEWORK TO ASSIST IN THE FORMULATION AND EVALUATION OF OPTIONS

This section presents a framework to assist in the formulation and evaluation of ownership and operation options for a particular small urban or rural area. Before presenting this framework, however, a discussion is presented first, on pertinent questions regarding the formulation of possible options, and second, on the cost and non-cost factors of importance in the evaluation of these options. These discussions will draw largely from the previous sections of the paper and will serve as a basis for the development of the framework.

##### The Formulation of Options

The formulation of alternative ownership and operation options will undoubtedly be an integral part of the overall planning effort carried out to develop a public transportation plan for a rural or small urban area. Whether the plan includes a small-scale, fixed-route, fixed-schedule bus service available to the general public or a regionwide, advanced reservation demand-responsive service for certain population segments (e.g., elderly) and groups (e.g., human service agencies), more than one ownership and operation option should be formulated and considered. These options could total as many as four or more, the exact number and entities of which will be related to several much broader questions such as:

- What are the public transportation needs in the area, and are existing owners and operators willing and able to meet these needs?
- Should public funds be used to meet these needs, and, if so, what public funds are available, and what restrictions (if any) are placed on these funds?
- Do current state laws permit cities, towns, and counties to create special organizations such as transit authorities and districts?

The relevance and significance of these questions regarding the formulation of alternative ownership and operation options are discussed below.

Public Transportation Needs

One of the initial tasks carried out in a transit planning study is the identification of needs. In such studies it is often useful to define needs by population segments and various trip purposes. For example, a need might be to transport gainfully employed persons to work each day. Another need, which is quite different, is to carry elderly individuals to a nutrition site at lunch time on selected days of the week. A third need is to transport handicapped persons in wheelchairs to work or to a health center.

The specific needs relate to the ownership and operation option in several respects. First, depending upon whether the riders are totally ambulatory, partially ambulatory, or non-ambulatory will determine in part what type of operators might be considered. In the case of the persons in wheelchairs, some specially-equipped vehicle with possibly a hydraulic lift and tie-downs will be necessary. Often a private-for-profit operator such as a taxi company will not be prepared to provide this service, and in some cases will be unwilling to do so. As a result, a private-non-profit operator or maybe a private-for-profit chair car or ambulance company, will have to be utilized. In the case of the gainfully employed workers, a private-for-profit bus company could be hired on a contract by a public entity to operate during the peak periods in the morning and afternoons, or perhaps an employer/employee-based vanpool service could be offered without significant involvement of a public entity. Finally, to transport the elderly persons a private-non-profit operator with drivers trained in cardio-pulmonary resuscitation (CPR) might be used or a user-side subsidy arrangement could be developed with the local private-for-profit taxi company.

Needs will also have some bearing on the form of ownership. For example, some might believe that in order to satisfy the special needs of the elderly or handicapped, these individuals should be served by a private-non-profit operator who not only employs specially-equipped vehicles and trained drivers, but who is also under the control of a human service agency or agencies in the area. The vehicles could be owned by either an agency or by the operator.

The Use and Availability of Public Funds

It is a foregone conclusion in most small urban and rural areas that public transportation services will require some form of public funding. These funds have come from a variety of sources at all levels of government. Some federal sources (UMTA Sections 3 and 18) may require that the funds be given to a local public agency, for example, to purchase vehicles. This agency may operate the service or may contract for service with a private operator who, in turn, will provide a service to the general public at large.

Similar capital funds offered by some state DOTs (such as in Massachusetts) require that the recipient be a regional transit authority and that the authority contract with a private operator.

Other federal (e.g., Titles III, VI, XIX, XX) and state funding sources are used to reimburse operators for providing specialized services to a particular individual or group of individuals who are affiliated with a human service agency, such as the elderly person traveling to a nutrition site. The use of such human service agency funds may not require a public entity to be involved; consequently, public ownership may not be considered necessary, or advantageous.

### The Creation of Special Bodies

As discussed previously, regional and local transit authorities or districts have been created in rural and small urban areas to provide public transportation service. In some cases these authorities have eliminated the need for local and county policy boards to assume this responsibility, and in other cases have facilitated coordination among groups of cities, towns, and counties.

In states in which no such enabling authority exists, it may be necessary to enact appropriate legislation, which may be time-consuming, and ultimately create delays in the implementation of service. If such enabling authority is deemed necessary and desirable, legislation can be drafted and proposed. A useful action to take in the interim might include designating a city, town, or county agency as the lead public entity, which could have many of the powers of a transit authority.

### The Evaluation of Options

Following the formulation of possible options, an effort should be made to evaluate these options to select the best option or options. In this evaluation a number of factors should be considered such as cost, as well as factors which are not necessarily related directly to cost, but nevertheless are important.

### Cost Related Factors

A very critical concern in any transit related decision, such as the selection of an ownership and operation option, is cost. The type and significance of various costs incurred in the provision of transit service are well documented (5,19). Some types of costs will be common to all options, and other costs will be unique only to specific options. Examples of costs which would occur in any option include supervisory, driver, mechanic, dispatcher and other worker wages. If a service is provided by a city, which acts as the owner and operator, then the employees may have to be included within the civil service structure and paid hourly wages and benefits which existing city employees with comparable qualifications and responsibilities currently earn. If the services were privately operated, then the operator might be required to pay local union wages, and in cases where no union exists, the private operator might follow company personnel policies and pay scales and or/the local labor market. Another common cost would be fuel expenses. The magnitude of this cost will vary from option to option, due in part to federal, state and local tax exemptions depending on the option.

Costs which are associated with specific options are often capital expenses for vehicles and other facilities, depreciation, profit, and management fees. For example, if one of the alternatives employs a private-non-profit owner and/or operator, then there will be no "profit expense" as there would be, if a for-profit operator were involved. Therefore, in a particular situation the non-profit operator may be preferred. This was the case with the Pioneer Valley Transit Authority (PVRTA) in western Massachusetts, and consequently the PVRTA terminated its ongoing contract with a private-for-profit operator and created a private-non-profit entity to operate service. In the process the PVRTA also acquired the for-profit operator's maintenance garage, and by doing so, reduced the monthly operating costs which under the for-profit operator included depreciation expenses on the garage facility. The acquisition of the garage was naturally a capital cost and therefore, the local governments supported only 10% of the costs, since the Federal and state govern-

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ments paid the other 90%. Furthermore, this local capital cost was a one time expense, rather than a recurring monthly operating cost, of which the local share would be approximately 50%, given that Federal and state funds supported about 50%. It should be noted that in this particular situation lower total monthly operating costs resulted without any institutional or political problems. This was due largely to the fact that the non-profit operator hired all of the for-profit operator's employees, and as a result no existing employees were adversely effected in the termination of the for-profit operator's contract. If existing employees had not been hired by the non-profit operator and became unemployed, displacement allowances might have resulted as required in the UMTA Section 13(c) labor provisions. What should become clear here is that the selection of an ownership and operation option may be a somewhat more complex task, if an existing service is in place and consideration is being given to changing from one option to another.

Non-Cost Related Factors

Based on the review of advantages and disadvantages of the options presented in Chapter 2, it is clear that certain options have strengths and weaknesses which, unlike the cost factors discussed above, cannot be quantified easily in dollar terms. Moreover, these strengths and weaknesses, as viewed by public officials, are often a reflection of their philosophies, perceptions and attitudes toward the community's public policy goals and objectives, and, specifically, the role and importance of public transit in their towns and the surrounding area. For example, whether public officials view an RTA owned service more favorably over a city or LTA owned service will be related to their concern for coordinating services among various communities, and the interest of other towns toward transit. The extent to which public officials support public ownership and/or operation will relate to their concern for local public control in overall service delivery as well as monitoring, evaluation, advertising, promotion, and their general attitude toward public intervention. Other non-cost factors public officials often try to associate with various ownership and operation options in order to assess their overall strengths and weaknesses are:

- the potential that agencies will encounter significant political interference in overall management and day to day operations,
- the agencies' stability, that is, the likelihood that the agencies involved in ownership and operations will continue their role as owners and operators and will not encounter problems which might lead to sudden termination of service,
- the need for training necessary employees (e.g., supervisors, drivers, mechanics, dispatchers),
- amount of time required to implement the options (e.g., do vehicles have to be ordered and purchased, do new entities have to be created, and if so, does proper enabling legislation exist to establish these entities,
- to what extent will unwarranted services be provided due to local public pressures,
- do additional employees have to be placed on current public payroll, and if so, how many and for what purposes,
- the need to include such public employees within the local civil

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service system,

- the possibility of combining various transit functions with ongoing public functions (e.g., transit maintenance with other city maintenance activities),
- the importance and ability of various entities to borrow and tax,
- the ease with which common carrier passenger service can be combined with other existing transit services, such as package delivery,
- the probability that a public entity will have to deal directly with organized labor.

The Framework

This section presents a framework to formulate and evaluate a set of ownership and operation options. The framework consists of two major components: (1) a flow chart which aids in the formulation of options which are reasonable (or at least not inappropriate) for consideration, and (2) two matrices which assist in the evaluation of cost and non-cost factors for these options.

The Flow Chart

The use of the flow chart requires that a reasonable amount of information be available regarding the public transportation needs of the geographical area under consideration, the types of services required to meet these needs, the willingness and ability of existing owners and/or operators to provide this service, the availability of public funds to support these services and the regulations of such funds, and the extent to which state and local laws permit governmental units to own and operate transit services. As evident from the above discussion on the formulation of options, this information is directly and indirectly associated with the appropriateness of various agencies in the ownership and operation of transit services. In order to obtain this information properly, a public transit planning study may have to be undertaken (if it has not already been carried out). In the early 1970s these efforts were called "tech studies" (an abbreviation for "technical studies"), and later referred to as "TDPs". TDP stands for transit development plans. A TDP which was a major product of such studies, was primarily short term (1 to 5 years) in most small urban and rural areas, and, at a minimum, consisted of an analysis of local transit needs, an inventory of existing services and funding sources, and an assessment of alternative levels and types of transit service. In some instances (10, 11), a general qualitative comparison was made to review ownership and operation options.

Figure 1 presents the flow chart which shows in a logical, systematic manner questions regarding the needs and availability of public funds, owners and operators. What is suggested is that if one wanted to formulate a set of options for a given area, he/she should begin answering the questions at the top of the decision tree, and, depending on the answers, follow the appropriate arrows. For example, the first question is: What are the needs and what type of service will best meet these needs. Given that the primary need is, for example, to transport non-ambulatory persons who have no access to a car, we must then determine if public funds are available to meet such a need. What is inferred here is that the availability of Federal, state and local funds will have a direct influence on whether local officials are interested

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in providing service whatever the need may be. If adequate public funds are available, then the next question is: Are existing owners and operators required to receive such funds, and do these funds have to be used for certain expenses, such as capital investment only. As indicated above, eligible recipients of UMTA 16(b)2 funds are private non profit groups and eligible expenses include only the purchase of vehicles and other equipment. State transit funds (Chapter 161(B)) in Massachusetts can only be received by transit authorities who are not allowed legally to operate the service, but required to contract with private operators. In Pennsylvania state legislation was recently enacted to finance the implementation of paratransit services offered by private-non-profit agencies. In short, it can be observed that some funding sources are somewhat restrictive with respect to the type of service to be supported, the type of organization permitted to be the recipient and the responsibility this recipient has in the delivery of transit service.

Upon the determination of funding requirements, the next questions to address are: Are the necessary owners and operators available in the area, and if so, are they willing and able to offer service. It should be understood that a prospective operator such as a bus company might be available locally, but is not able to offer the desired service because he has no available buses and/or may not be willing to operate the service because it is proposed to be door to door service for wheel chair confined individuals, a type of service the company is not experienced or interested in providing. If the necessary owners and operators are not available or if available owners and operators are not willing or able to offer the service required to meet the local needs, then new ownership and operation entities will have to be created. These entities might include private-non-profit operators or a local or regional transit authority to be a recipient of available funds and to contract with an existing bus company. What might be considered initially, is to implement service with existing organizations as a way of avoiding delays in implementation while new organizations are being established. Depending on the level of interest in the community regarding the need for such service, it may also be decided that no resources should be committed to creating new organizations because existing organizations may be adequate, and should they prove to be inadequate or ineffective consideration for new organizations can be given at some later time. This approach should not be necessarily construed as being inappropriate, but more as a strategic, short term decision, and perhaps a politically expeditious decision so as to facilitate the implementation of a vital service. Upon determination of the need to create new owners and operators and the identification of existing owners and operators who are willing and able to offer service, a set of ownership and operation options can be formulated, and then assessed with the use of the evaluation matrices.

#### Evaluation Matrices

The primary purpose of the matrices is to evaluate the options identified with the flow chart. This evaluation will present a clearer picture of the cost and non-cost considerations of each option, and as a result, allow for the selection of the best option or options in a somewhat objective and systematic manner.

Figures 2 and 3 present these two matrices. Each matrix along the left side lists the options formulated with the flow chart and along the top, the factors to consider in assessing these options. The matrix in Figure 11 includes "cost related" factors, while the other matrix in Figure 12 includes non-cost factors. These factors were derived from the material presented in

the section above on the evaluation of options and in Chapter 2, particularly the review of general advantages and disadvantages of various options.

Major cost related factors in Figure 2 include the range of hourly wages (expressed in dollars per hour) for major employees in each option and the approximate fuel price, including taxes. Such information provides an indication of the relative differences in wages and fuel costs among options. Other factors which assist in examining the relative differences in the costs of each option relate to the existence (or lack of) depreciation, profit, taxes, management fees and capital costs. If transit services exist and ownership and operation options are being considered to replace an existing option, there may be a need to pay displacement allowances, as discussed earlier. The ultimate determination of the least expensive option may only result, after competitive bids are submitted, by prospective private operators (assuming that there are such operators in the options under consideration). Using cost information from Figure 2, cost estimates for publicly owned and/or operated options could be estimated by a local public official, perhaps with the assistance of a consultant or private management company. These costs could then be compared to those which employ private operators.

Figure 3 offers an organized way in which to review the non-cost factors or strengths and weaknesses of the possible options. As suggested earlier, the relative importance of these factors are associated with the perceptions and attitudes of local public officials toward the role, importance, and need for transit in their town and surrounding towns. Qualitative scales could be used such as low, medium, high; or +, 0, -; or ordinal measures. A scale would be chosen for each column (i.e., a specific non-cost consideration) to examine in a relative way the differences among the options.

## 5.0 HYPOTHETICAL EXAMPLE

To demonstrate the use of the framework a hypothetical example will be presented. In this example information will be provided regarding the needs, funding sources available, and existing owners and operators, state enabling legislation, and cost and non-cost factors. This information will be employed first to "walk" the reader through the flow chart and show how a set of possible options can be formulated with the assistance of the flow chart. Following this, the matrices will be used to compare and contrast these options with respect to cost and non-cost factors and identify the best option or options which would be subjected to more detailed analysis.

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The Town of Hatchville (population: 19,000) is located in rural Elsworth County. Hatchville serves as the county seat and is one of nine small urban areas in the county.

Based on the results of a preliminary transit study, the local elected officials in Hatchville have decided that available Federal, state and local monies should be secured to meet the public transit "needs" of the town. These "needs" include providing mobility to primarily those town residents who do not own a car or have a driver's license, or who for some other reason have only limited access to private transportation for work and/or non-work trips within Hatchville. In the study it was also determined that the most effective and efficient way to meet these needs would be with conventional fixed route fixed schedule bus service, given the town's highway network configuration, the location of non-residential trip generators, residential densities, the spatial and temporal characteristics of current travel patterns within the town, and other factors. Both peak and offpeak service would be offered along two or perhaps three routes, which would require three to six



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medium to large diesel vehicles (including spares), depending on the headways, schedules, route length, etc. No such service is presently in operation. The public monies to be used to defray capital, administrative and operating costs of the proposed service are:

- (1) UMTA/FHWA Section 18 funds
- (2) State funds
- (3) Local funds

Eligible recipients include public or private organizations).

The inventory of existing owners and operators reveals that a private bus operator, Company A, is based in the community, and presently operates school bus and charter services, and used to offer fixed route-fixed schedule service within the town. In addition, there is a private taxi company which operates several taxi cabs on an exclusive ride basis and a local Council on Aging which operates two vans to transport elderly residents to nutrition sites during the midday. Company A is willing to provide the proposed fixed route-fixed schedule service under a contract with his own drivers, vehicles and maintenance facilities. Neither the taxi company nor the Council on Aging are interested in providing service. Although it is recognized that a private management company is a potential operator, it appears that local political pressures will force the city to contract with Company A rather than with an out of town operator if a contract with a private operator is deemed appropriate and necessary.

Presently, the city is willing to consider assuming ownership and/or operation of such a service provided that the cost of such an option is comparable to or significantly less than other options. In addition, the city would like to implement service as soon as possible.

Finally, state enabling legislation exists which allows cities and towns in the state to create local and regional transit authorities. Up to now, no other town is interested in supporting such a service within their jurisdiction or between their jurisdiction and Hatchville, and furthermore, the county is opposed strongly to subsidizing such a service with county funds.

Given the views of public officials in the towns and the County as well as information on local transit needs, and available owners, operators, funds, and State legislation, the flow chart can be completed as shown on Figure 4. As emphasized in the report this flow chart aids local officials in the identification of possible options in a step-wise and structured manner. Those local officials who are experienced and knowledgeable in transit planning and development may not find it necessary to follow such a flow chart. However, local persons who have little to no experience in the transit area should find the flow chart useful. Based on the results of Figure 4., eight possible options are identified.

- Town owned and operated
- Town owned and Company A operated
- Town owned and private management company operated
- Company A owned and operated under contract with Town

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- LTA owned and operated
- LTA owned and Company A operated
- LTA owned and private management company operated
- Company A owned and operated under contract with LTA

The next step is to obtain information regarding the cost and non-cost factors. This information is summarized as follows:

- (1) If the service is owned and operated by the town (Option 1), local personnel policies will require all transit workers (including supervisors, drivers, mechanics and dispatchers) will be civil service employees, and earn the following wages:
  - Supervisory - \$9/hour
  - Drivers, mechanics, dispatchers - \$6/hour
 In addition, it is required that civil service employees be paid benefits totaling 26% of wages.
- (2) If the service is operated by Company A or the private management company, the wages will be as follows:
  - Supervisory - \$9/hour
  - Drivers, mechanics, dispatchers - \$5/hour
 These employees will receive benefits totaling 16% of all wages.
- (3) Under private ownership (Options 4 and 8) fuel would be purchased for approximately \$1.30 per gallon, whereas under town or LTA ownership (Options 1, 2, 3, 5, 6, 7) fuel would cost \$1.18 because public ownership entities are exempt from the State and Federal sales taxes on gasoline. These taxes, as well as taxes on tires and parts, will be paid by private owners in Options 4 and 8.
- (4) Each of the six options which include town or LTA ownership (1, 2, 3, 5, 6, 7) requires a capital outlay, which will total 10% of the total capital costs, since UMTA Section 1B and State Funds support the other 90%. The Federal and State assistance program do not allow depreciation costs to be recovered on the 90% share.
- (5) The town and LTA owned and operated options (1 and 5) do not include a profit or management fee.
- (6) All options involving Company A (2, 4, 6, 8) will include a profit, but no management fee.
- (7) Options (3 and 7) which include a private management company will not include a profit but will include a management fee.
- (8) Since there is no such service in existence, then it is likely that no persons presently employed will be adversely effected. Consequently, there will be no displacement allowances involved in any option.

This information is used to complete the cost matrix as shown on Figure 5. If the estimates for capital outlay, profit, management fee, and taxes as well as vehicle hours and vehicle miles are known the following formulae could be used to estimate the relative differences in startup costs and annual operating costs among the various options:

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Start Up Cost = Capital Outlay + Displacement Allow

Annual Cost = Labor + Fuel + Deprec + Profit + MngFee +  
Other Taxes

Annual Cost = Ave Dr Wage per hour x (vel-hrs) x 1.5  
+ Fuel Price per gallon (Veh-Miles)  $(\frac{1}{MPG})$   
+ Capital Cost  $(\frac{1}{n})$   
+ Profit + MngFee  
+ Other Taxes

The necessary cost-related information for Options 2, 3, 4, 6, 7, and 8 could be obtained through the solicitation of competitive bids.

The non-cost factors could be evaluated with the aid of the worksheets presented on Figures 6, 7, and 8. These worksheets were prepared for use by local officials.

Figure 6 proposes a way in which local officials can examine the relative "importance" among the various non-cost factors.

Figures 7 and 8 assist the local officials in determining relative differences in non-cost factors among the various options. The results from these worksheets can be transferred to the non-cost matrix as shown in Figure 9. In the upper half of each cell in the matrix is a number representing the score from worksheets #2 and #3. This score is multiplied by the corresponding level of "importance" from worksheet #1. This product is added to the other products for each option to give a "total" on the far right side of the matrix.

It should be emphasized that the use of these worksheets and non-cost matrix requires that the user (i.e., the local official) be familiar with the characteristics, advantages, and disadvantages associated with the various options as discussed in the body of the report. In addition, it should be realized that the results on the non-cost matrix represent, in part, the philosophies, perspectives, and biases of the local official toward the role of local governments in the provision of public transit.

## 6.0 CONCLUSIONS AND RECOMMENDATION

This paper presents a review of the most common ownership and operation options which have been used to provide public transportation services in rural and small urban areas. Some thirteen organizational entities are identified as having been involved in the provision of service either alone or cooperatively with another entity. Some of these entities include public agencies and others are private organizations. Whether one entity assumes the total responsibility of offering such services or it is a collaborative effort between the public and private sectors and among multiple jurisdictions depends largely on the needs of the area, the commitment and legal authority of the jurisdictions involved, the availability of public funds, and the willingness and capability of existing owners and operators to supply the necessary services.

Also, presented is a framework (including a flow chart and evaluation ma-

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trices) to assist in the formulation and assessment of possible ownership and operation options. The flow chart in a step wise fashion aids an individual in the identification of a set of reasonable ownership and operation options, given the transit needs and availability of funds, owners, and operators. The matrices help the individual evaluate various cost and non-cost factors of the options under consideration.

Finally, it should be emphasized that many of the on-going publicly financed transit services in small urban and rural areas have not been in operation as long as their counterparts in major metropolitan areas. Some of these rural transit services (particularly many of those funded through UMTA/FHWA Section 18) have only been in existence for 2 years or so, which is, in some cases, just barely enough time for the service to reach a steady state. Due to this reason and the fact that no comprehensive uniform data base has been readily available, no effort has been made to determine the effect an ownership and operation option has on costs and other aspects of system performance. Consequently, it is recommended that a systematic study be conducted to examine the relationship of the ownership and operation option to overall system efficiency and effectiveness in small urban and rural areas. Such research should take full advantage of the work carried out by the University of California Institute of Transportation Studies on the organization, structure, and performance of transit agencies (34), and the UMTA Section 15 data base, wherever possible.

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Figure 1

A Flow Chart to Assist in the Formulation of Ownership and Operation Options

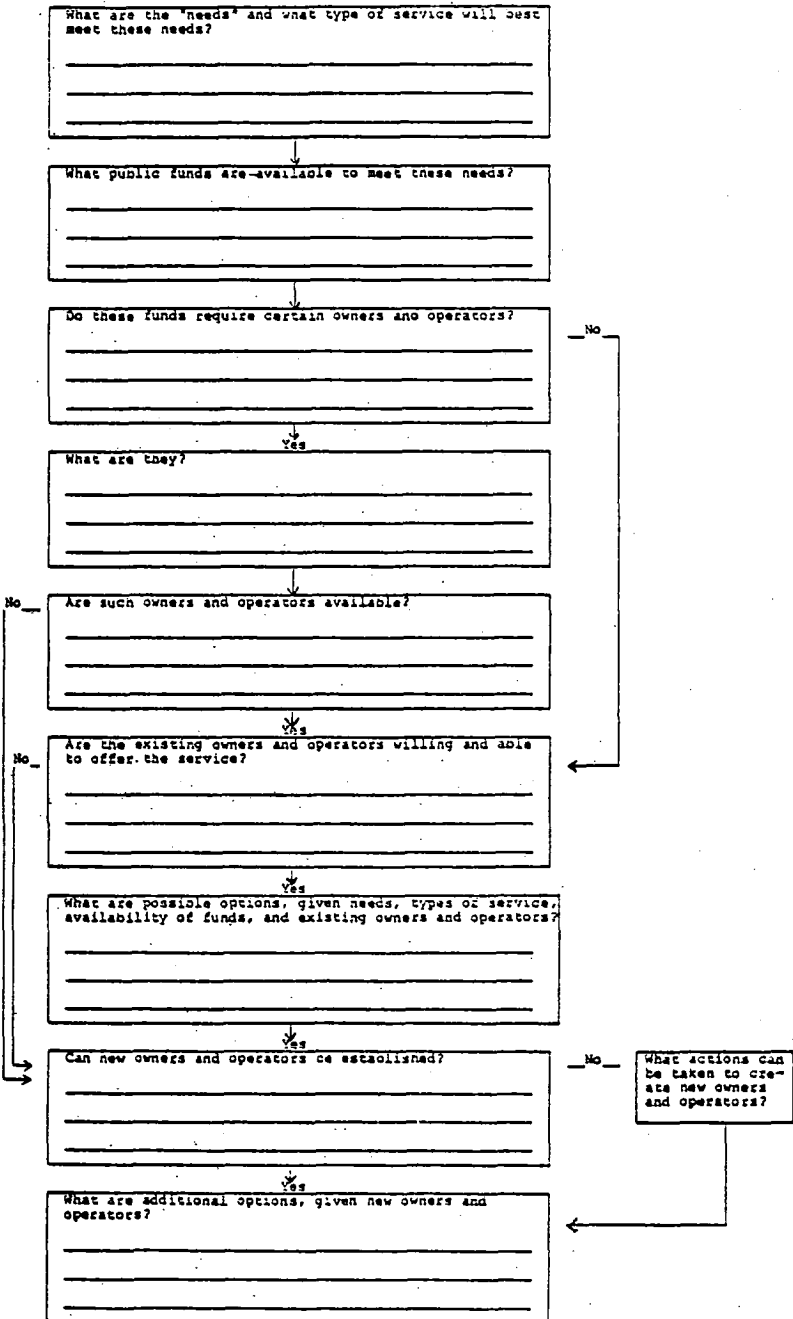


Figure 2  
Matrix of Cost Factors

Option	Range of Hourly Wages (\$/hour Excluding Benefits)					Approximate Fuel Price (\$/gallon) (inc. tax)	Depreciation (Yes/No)	Profit (Yes/No)	Management Fee (Yes/No)	Other Taxes <sup>1</sup> (Yes/No)	Public Capital Outlay Required (Yes/No)	Displacement Allowance <sup>2</sup> (Yes/No)
	Supervisory	Drivers	Mechanics	Dispatchers	Others							
1												
2												
3												
4												
5												
6												

<sup>1</sup> Include, for example, taxes on parts, tires, real and personal property, and new equipment.

<sup>2</sup> Relevant only where existing services are in place.

<sup>3</sup> Adv if PMC.



Figure 3  
Matrix of Non-Cost Factors

Option	Potential for Political Interference	Control	Ease to Make Service Changes	Training Needs	Implementation Time Required	Potential for Coordination	Potential for Unwarranted Services	Public Sector Involvement	Possible Need to Deal with Labor	Need for Civil Service Employees
1										
2										
3										
4										
5										
6										

Figure 3 (Continued)

Option	Potential to Combine with Other Governmental Functions	Need to Create New Entities	Ability to Borrow	Ability to Tax	Ease to Combine with Existing Package Delivery	
1						
2						
3						
4						
5						
6						

Figure 4  
A Flow Chart to Assist in the Formulation of Ownership and Operation Options

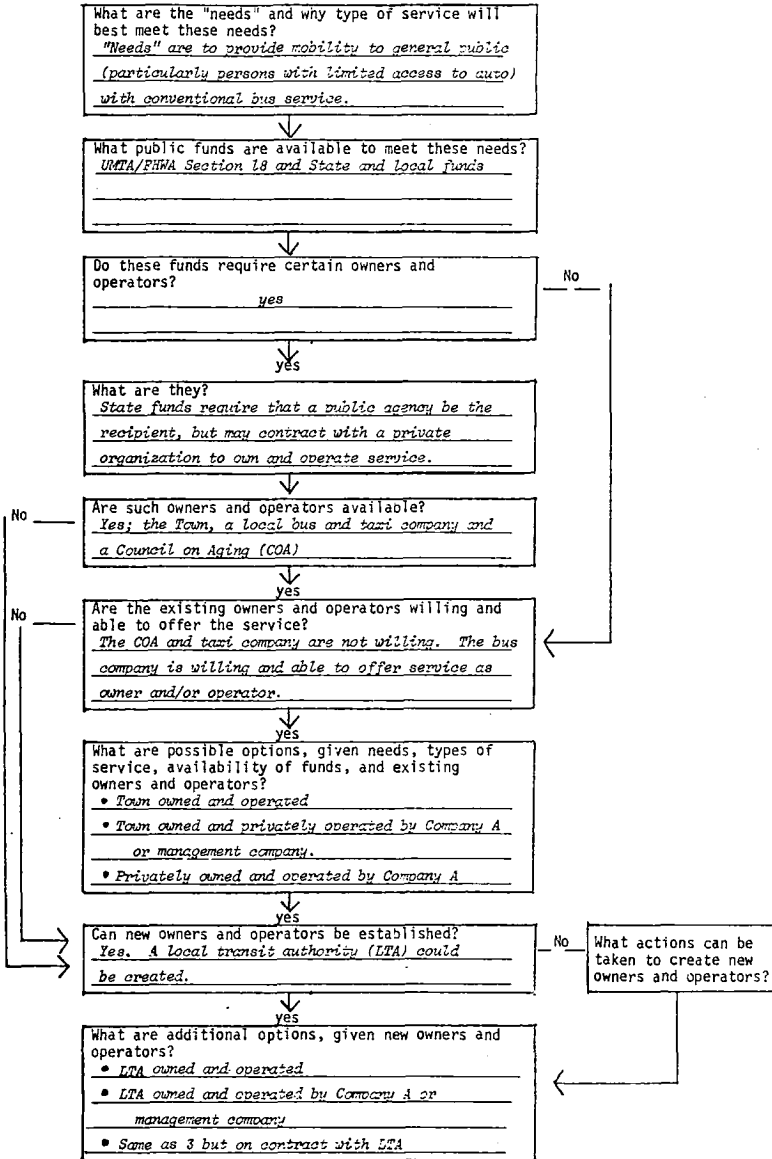


Figure 5  
Matrix of Cost Factors

Option	Range of Hourly Wages (\$/hour Excluding Benefits)					Employee Benefits (% of Wages)	Approximate Fuel Price (\$/gallon) (inc. tax)	Depreciation (Yes/No) (If yes, est. \$/yr)	Profit (Yes/No) (If yes, est. \$/yr)	Management Fee (Yes/No) (If yes, est. \$/yr)	Other Taxes <sup>1</sup> (If yes, est. \$/yr)	Local Public Capital Outlay Required (Yes/No)	Displacement Allowance <sup>2</sup> (Yes/No) (If yes, est.)
	Supervisory	Drivers	Mechanics	Dispatchers	Others								
1. Town on Town Op	9	6	6	6	-	26	1.18	Yes, on local Public Cap Outlay Only	NO	NO	NO	yes	No
2. Town on CoA Op	9	5	5	5	-	16	1.18	"	yes	NO	NO	yes	No
3. Town on PMCO p	9	5	5	5	-	16	1.18	"	NO	yes	NO	yes	No
* 4. CoA on CoA Op	9	5	5	5	-	16	1.30	Yes, on CoA Equipment	yes	NO	yes	No	No
5. LTA on LTA Op	9	5	5	5	-	16	1.18	Yes, on local public Cap outlay only	NO	NO	NO	yes	No
6. LTA on CoA Op	9	5	5	5	-	16	1.18	"	yes	NO	NO	yes	No
7. LTA on PMCO p	9	5	5	5	-	16	1.18	"	NO	yes	NO	yes	No
* 8. CoA on CoA Op	9	5	5	5	-	16	1.30	"	yes	NO	yes	No	No

<sup>1</sup> Include, for example, taxes on parts, tires, real and personal property, and new equipment.

<sup>2</sup> Relevant only where existing services are in place.

NOTES:

\* on Contract with Town

\*\* On Contract with LTA

Figure 6  
Work Sheet #1

How important is it to:

not slightly moderately extremely  
important important important important

1. Facilitate coordination among towns?	X			
2. Provide local governments with control of routes, rates, schedules, and other transit policy matters?			X	
3. Permit local governments to make service changes quickly?			X	
4. Provide an entity with the ability to tax for transit purposes . . .				X
5. . . . and to borrow at low interest rates?				X
6. Combine transit functions with other on-going governmental functions?	X			
7. Combine passenger transit with package delivery?	X			
8. Separate day to day operations from local political interference?				X
9. Eliminate the need for local governments to train drivers and other personnel?				X
<i>Eliminate the need to</i> 10. Hire drivers and other personnel?				X
<i>Eliminate the need to</i> 11. Include transit employees in local civil service system?				X
<i>Eliminate the need to</i> 12. Deal directly with transit labor unions?				X
13. Eliminate the need to create new entities?				X
14. Implement service as soon as possible?				X

0 1 2 3

Figure 7  
Work Sheet #2

To what extent does each option:

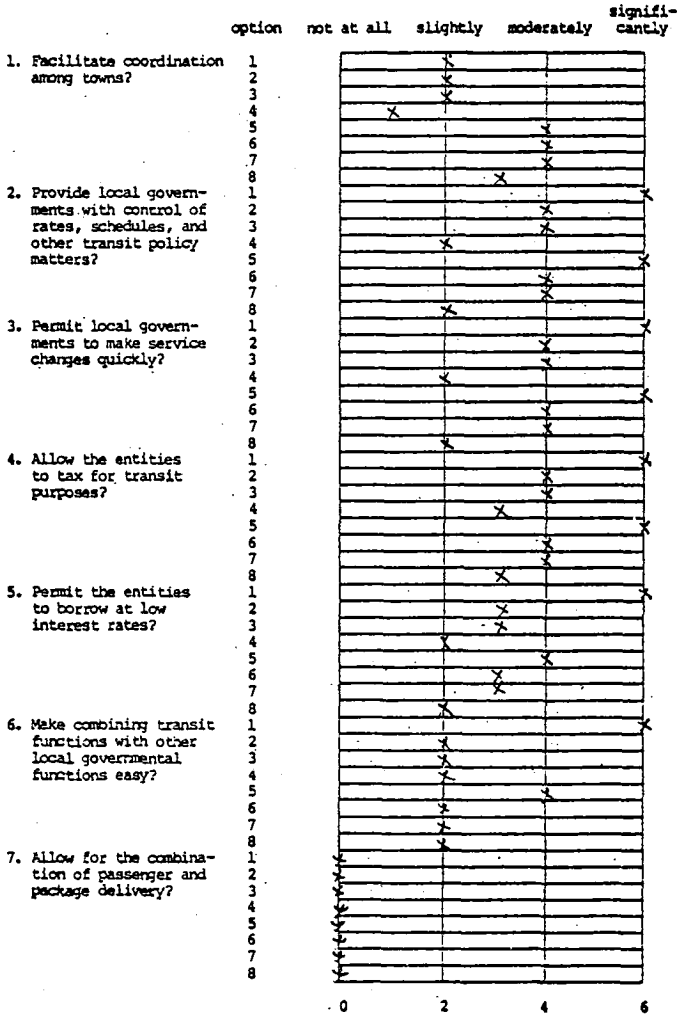
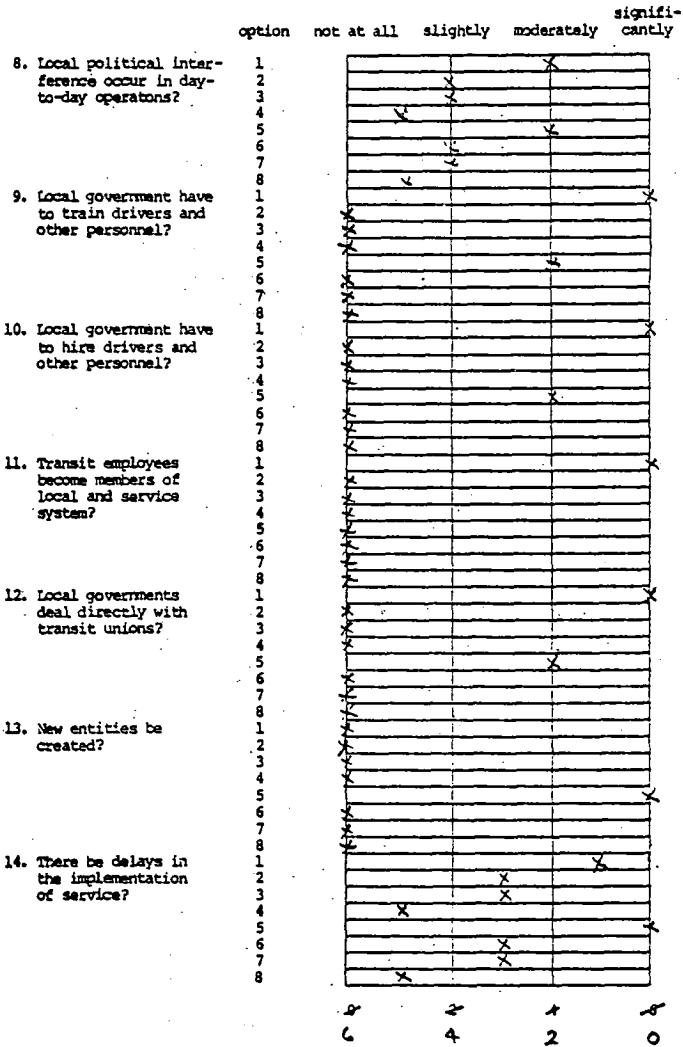


Figure 8  
Work Sheet #3

To what extent in each option will:



6                      4                      2                      0

Figure 9  
Matrix of Non-Cost Factors

	(1) Potential for Coordination	(2) Degree of Public Control	(3) Ease to Make Service Changes	(4) Ability to Tax	(5) Ability to Borrow	(6) Potential to Combine with Other Govern- mental Functions	(7) Ease to Combine with Existing Package Delivery
Importance	1	2	2	3	3	1	1
Option 1	3 3	6 12	6 12	6 18	6 18	6 6	0 0
2	3 3	4 8	4 8	4 12	3 9	2 2	0 0
3	3 3	4 8	4 8	4 12	3 9	2 2	0 0
4	1 1	2 4	2 4	3 9	2 6	2 2	0 0
5	4 4	6 12	6 12	6 18	4 12	4 4	0 0
6	4 4	4 8	4 8	4 12	3 9	2 2	0 0
7	4 4	4 8	4 8	4 12	3 9	2 2	0 0
8	3 3	2 4	2 4	3 9	2 6	2 2	0 0



Figure 9 (Continued)

	(8) Potential for Political Interference	(9) Training Needs	(10) Need to Hire Employees	(11) Need for Civil Service Employees	(12) Need to Deal with Labor	(13) Need to Create New Entities	(14) Delays in Implementation	
Importance	3	3	3	3	3	3	3	
Option 1	<del>2</del> 6	<del>0</del> 0	0 0	0 0	0 0	6 18	1 3	
2	<del>4</del> 12	6 18	6 18	6 18	6 18	6 18	3 9	153
3	4 12	6 18	6 18	6 18	6 18	6 18	3 9	135
4	5 15	6 18	6 18	6 18	6 18	6 18	5 15	146
5	2 6	2 6	2 6	6 18	2 6	0 0	1 3	107
6	<del>4</del> 12	6 18	6 18	6 18	6 18	6 18	<del>3</del> 9	154
7	<del>4</del> 12	6 18	6 18	6 18	6 18	6 18	<del>3</del> 9	154
8	5 15	6 18	6 18	6 18	<del>6</del> 18	<del>6</del> 18	5 15	152