U.S. Department of Transportation

Guidebook for Planning Small Urban and Rural Transportation Programs

Volume 1

June 1990

A TECHNOLOGY SHARING REPRINT

Guidebook for Planning Small Urban and Rural Transportation Programs

Volume 1

Prepared for

The New Mexico State Highway and Transportation Department
Transportation Programs Division

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Funded through the
Rural Transportation Assistance Program

June, 1990

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Chapter I - GUIDEBOOK OVERVIEW

A. Introduction

In August of 1989, the New Mexico State Highway and Transportation Department (NMSHTD) entered into an agreement with the COMSIS Corporation, a private transportation consulting firm, to provide technical assistance to New Mexico Section 18 programs. The purpose of the project was to prepare a Guidebook and conduct a workshop to assist small urban/rural communities to assess public transportation needs and programs. The Guidebook is to be used by both existing program operators to improve or modify their operations, and by other communities to determine local needs and develop new programs.

Prior to commencing work on the Guidebook, COMSIS personnel met with NMSHTD staff to discuss the project objectives and to assemble relevant information. In addition, a survey form was distributed to each of the currently operating Section 18 properties. The completed survey forms were reviewed and summarized.

In an effort to better understand the needs of local service providers, COMSIS personnel conducted on-site interviews with Section 18 program personnel at the following locations:

- Los Alamos Bus, Los Alamos NM
- Gallup Express (NW NM Council of Governments), Gallup NM
- City of Belen (RSVP), Belen NM
- DART, Deming NM
- Chamber of Commerce (RSVP), Roswell NM
- Clovis Area Transportation System, Clovis NM
- Melrose Senior Center, Fort Sumner NM
- DeBaca County Senior Citizens, Fort Sumner NM
- Taos County Area Transit System, Taos NM

COMSIS personnel reviewed and studied a large amount of information relative to the Section 18 program and local conditions within the State of New Mexico prior to commencing work on the Guidebook. It is our hope that this Guidebook reflects this study and review, that we have produced a product that meets the stated project objectives, and that this Guidebook is of use to both existing and future Section 18 programs.

B. Section 18 Guidebook Goal and Objectives

In order to understand the goal and objectives of this Guidebook, one must first understand the NMSHTD's goal and objectives for the Section 18 program.

The stated goal of New Mexico's Section 18 program is to encourage and assist in the provision of needed transit services for the general public in the rural areas and small communities in the State. It is not the State's intention to create demand for public transit in areas where it is non-essential, but to relieve the isolation of New Mexico's rural and small urban area residents and improve their access to essential services.

To achieve this goal, the Section 18 program focuses on the following objectives:

- All approved projects must provide access for people in non-urbanized areas to health care, shopping, education, employment, public services, other essential services, and recreation trips throughout the contract period.

- The NMSHTD will assist in the development and/or improvement of public transportation systems, in rural and small urban areas, within funding constraints throughout the funding year.

- The NMSHTD will encourage and facilitate the efficient use of all non-federal and federal funds used to provide passenger transportation in non-urbanized areas through the coordination of programs and services throughout the funding year.

- All approved projects must provide for the participation of private transportation providers in non-urbanized transportation services to the maximum extent feasible throughout the contract period.

Underlying policies which support the program goal and objectives are:

- Transportation services must be open to the general public at all times during operation.

- Transportation services must be fully advertised as public transportation.

- Transportation services must charge fares of all riders in order to recover a portion of the costs of providing services. Funds made available under Section 18 are to be used to supplement rather than replace existing transportation resources.

- Transportation projects must exhibit either a well-planned project and stable funding sources (if a new recipient) or a well-managed project and stable funding sources (if requesting a continuation of funding).

- Projects must not compete unfairly with private or public transportation services in existence. Rather, they are to coordinate services which make the most efficient use of the federal funding.

Expressed somewhat differently, the goal of the NMSHTD is to provide high quality, cost efficient transportation services that are responsive to the needs of each individual area. To achieve this goal, each Section 18 property must be managed and operated in a professional, business-like manner.

Anyone involved in the transportation industry knows that this is not an easy task. Increasing costs and demand for service coupled with decreasing levels of funding challenge even the most efficient programs to continue to meet community needs -- especially in rural areas.

The NMSHTD/COMSIS goal in developing this Guidebook is to provide both existing and developing programs with the resources and information required to meet this challenge.

C. Guidebook Contents

The Guidebook has been structured to present information in a logical planning sequence. Each chapter builds upon information presented in the previous chapter. It is therefore recommended that the entire Guidebook be reviewed prior to focusing on any one particular chapter or subject area.

In addition, a general Guidebook Appendix (Chapter XII) is included. Furthermore, each chapter includes a separate chapter appendix which includes any worksheets, information or reference materials pertaining to that particular chapter.

The following provides a brief description of each chapter, its purpose and contents.

Chapter I - Guidebook Overview

Chapter I provides a general discussion of the purpose and background of the Guidebook and describes how it can be used by New Mexico communities. It contains a brief description of each chapter and details the chapter purpose and contents.

Chapter II - Determining Local Public Transportation Needs

Chapter II provides a description of how to determine general local markets for public transportation service. It explains the term, "need", and outlines a method of approach for gathering and displaying the data required for the needs assessment process.

Chapter III - Estimating Demand

Chapter III provides detailed methods and procedures for translating the need for transportation services identified in Chapter II into estimates of potential riders. It explains the term, "demand", and introduces simple techniques for estimating and displaying ridership.

Chapter IV - Service Inventory

Chapter IV provides a description of how to inventory existing local services and hours to determine service types and sizes, and characteristics. It details procedures for identifying existing service providers and conducting a survey to determine service characteristics. It provides a sample survey form and discusses summarization of survey results.

Chapter V - Alternative Transportation Systems

Chapter V provides a description of alternative public transportation systems and a means for determining the suitability of each to a given situation. It also presents a discussion relative to the coordination of transportation services, the benefits of coordination, and alternative organizational structures.

Chapter VI - Equipment Needs

Chapter VI provides a description of the methods that can be used to determine possible equipment/facility needs. It details vehicle types and acquisition procedures, communication systems, procedures for determining office space needs, and wheelchair accommodations. It contains an extensive reference section on each of the above.

Chapter VII - Funding and Finance

Chapter VII provides a discussion of possible funding sources and financial needs. It discusses available funding sources at the federal, state and local levels; budgeting and accounting methods; cost allocation procedures; computerized accounting; fare management; and alternative fare and reimbursement methodology.

Chapter VIII - Operations

Chapter VIII provides a description of key general operating policies and procedures which impact the cost and efficiency of program operation. The chapter begins with a discussion of federal and state of New Mexico Section 18 program regulations. It continues with a discussion of management and organization structures, program procedures, reporting, risk management, insurance, training, contracting, and marketing. It has an extensive resource and reference section, and the chapter appendix contains a variety of useful worksheets, sample forms and reports, and reprints of relevant articles and booklets.

Chapter IX - Community Involvement

Chapter IX provides a discussion of the need for and approaches to involving the local community in planning efforts. It discusses methods for promoting community interaction, and structuring a plan for community involvement. The chapter appendix contains a useful worksheet and a variety of survey forms for use in assessing community knowledge and involvement with transit services.

Chapter X - Getting Started

Chapter X provides a step-by-step description of how to plan for and implement a new system. It details each step from initial community discussions up to "opening the doors" for the new service. Each step references the appropriate chapter or chapters of the Guidebook that contain information helpful in completing each successive step and moving on to the next.

Chapter XI - Program Monitoring

Chapter XI provides a description of methods that can be used to compile and analyze performance standards including: ridership, costs, vehicle use, and the suggested use of microcomputers as a monitoring tool. The chapter also includes an article on the use of performance standards in contracting and a generic sample contract.

Chapter XII - Guidebook Appendix

This section of the Guidebook contains a glossary of terms used throughout the preceding chapters.

Chapter II. DETERMINING LOCAL PUBLIC TRANSIT NEEDS

A. Introduction

This chapter has been developed to assist local transportation providers to determine (or estimate) the need for public transit services. It addresses various market segments including the elderly and handicapped, commuters, children, and visitors/tourists; i.e., market segments that are generally more transit dependent (and are, therefore, more in need of public transit service) than other segments of the population. Stated somewhat differently, if everyone in the service area was 35 years old, had a median family income of $50,000 or more, and owned three automobiles, the need for public transit services would be minimal.

It should be recognized that there is a difference between public transit needs and public transit demand (which is covered in more detail in Chapter III), and that needs has little to do with operations. For example, Area A has a handicapped population of 1000, and Area B has a handicapped population of 500. The handicapped of both areas are totally dependent on public transit, which implies that the need for handicapped transit services in Area A is twice that of Area B. On the other hand, all handicapped in Area B are employed, and use public transit to go to and from work each weekday (500 x 2 x 5 = 5000 trips/week). The handicapped of Area A make only occasional trips -- say two each week or 2000 in total. It follows that the need in Area A is greater than Area B, but the demand in Area B is greater than Area A. In this context, need refers to the number of people in the market segment rather than the number of trips they make. It also suggests that transportation providers must be careful in dealing with funding agencies who generally distribute available monies on the basis of need, not demand. In this example, Area B would get half the funding of Area A, but would be required to provide 2 1/2 times the service.

How does a local agency proceed to quantify estimates of need by the market segments mentioned? The easiest (and maybe the best) approach would be to retain the services of a transportation planning consultant -- someone who has done this type of work before. The objective of this guidebook is not,however, to develop contracts for consulting firms. What follows, therefore, is the method of approach that would be employed by COMSIS if it were under contract to develop an estimate of public transit needs by market segment for your area. We are hopeful you will follow the same approach, and produce acceptable and reasonable results.

B. Needs Assessment - Method of Approach

Outlined below is a method of approach to develop an estimate of public transit needs by market segment for your area.

1. Obtain Mapping

The first step is to obtain the best mapping available for your area -- mapping that is detailed yet manageable and overlayable (e.g., USGS, NMSHTD, Metro Maps, etc). A map about 36"x54" works well.

2. Outline Service Area

Step 2 involves delimiting your service area on the map (drawing a cordon line), and compiling some very general statistics (e.g., total population, total area, population density, etc.) to get a feel for the overall characteristics of the area.

3. Develop Assessment Procedures

If COMSIS were undertaking this assessment, it would next discuss the difference between primary and secondary data collection; i.e., primary is new data and secondary is data from existing sources. The quality of the results obtained from each (primary is better), and the cost of each (secondary is less expensive) would be explained; and, most probably, we would recommend that we determine what we have before we begin collecting new data.

4. Detail Market Segments

At this point, we would start focusing on the individual market segments which are the elderly, handicapped, commuters, children and visitors/tourists. The best method of accomplishing this objective is to consult with those persons who are most knowledgeable about the characteristics of these groups, and to obtain any reports, tabulations, and other materials that are available. We would begin by contacting the NMSHTD, local planning and development commissions, and other similar agencies that collect and maintain data, and soliciting their advice, guidance and support. We would also compile a list from the local telephone directory of those agencies/firms that, in our opinion, would be of assistance; e.g.,

> Elderly: Senior Citizen Centers, AARP, Tax Office, etc.
> Handicapped: Guild for the Blind, Department of Motor Vehicles (handicapped parking stickers), Mental Health & Retardation, etc.
> Commuters: Major Employers, Chamber of Commerce, Merchants Associations, etc.
> Children: School Districts, Department of Education, etc.
> Tourists/Visitors: Visitors Bureau, Motel/Hotel Associations, Major Attractions, etc.

Each of the above would be contacted, and information would be obtained for review and summarization. You can be guaranteed (if you haven't been through this before), that you will compile much more information than you thought was available, and that your better sources of information will most probably not be on your initial list -- you will discover them as part of your secondary data collection process.

5. Plot Census Data

Next, we would obtain Census Bureau Data available for your area. In reference to Census data, it should be noted that there is a wealth of information available (e.g., income, auto ownership, etc.), but that it is now ten years old. If you live in a fast growing area, 1980 Census data will be less representative of today's conditions than if you live in a more stable area. However, you will be able to get an overall

perspective of transit needs by delimiting Census tracts on your map, and plotting and tabulating basic data in a manner similar to that shown on the following four pages.

FIGURE 1
TOWN OF HUNTINGTON
ELDERLY POPULATION BY CENSUS TRACT

FIGURE 2
TOWN OF HUNTINGTON
DISABLED POPULATION BY CENSUS TRACT

FIGURE 3
TOWN OF HUNTINGTON
BOTH POPULATION SUB-GROUPS BY CENSUS TRACT

TABLE 1
TOWN OF HUNTINTON
ELDERLY AND DISABLED POPULATION BY CENSUS TRACT

Census Tract	Total Persons	Persons 60+	60+ % of Total	Disabled Persons	Disabled % of Total	Disabled + 60+ Persons	Disabled + 60+ Persons % of Total
1101.01	3405	393	11.5%	40	1.2%	433	12.7%
1101.02	5336	778	14.6%	96	1.8%	874	16.4%
1102	5500	1096	19.9%	180	3.3%	1276	23.2%
1103	5726	863	15.1%	126	2.2%	989	17.3%
1104	6443	780	12.1%	102	1.6%	882	13.7%
1105	6002	987	16.4%	134	2.2%	1121	18.7%
1106	7651	1164	15.2%	196	2.6%	1360	17.8%
1107	650	233	35.8%	6	.9%	239	36.8%
1108	8027	783	9.8%	140	1.7%	923	11.5%
1109	6812	963	14.1%	232	3.4%	1195	17.5%
1110	5418	858	15.8%	158	2.9%	1016	18.8%
1111	6468	949	14.7%	148	2.3%	1097	17.0%
1112	7772	1204	15.5%	210	2.7%	1414	18.2%
1113	4392	656	14.9%	44	1.0%	700	15.9%
1114	7074	733	10.4%	144	2.0%	877	12.4%
1115.03/04	6205	770	12.4%	134	2.2%	904	14.6%
1115.05	6417	808	12.6%	109	1.7%	917	14.3%
1115.06	2800	313	11.2%	36	1.3%	349	12.5%
1116	7773	873	11.2%	186	2.4%	1059	13.6%
1117	12414	1478	11.9%	282	2.3%	1760	14.2%
1118	15389	1155	7.5%	274	1.8%	1429	9.3%
1119	6071	737	12.1%	111	1.8%	848	14.0%
1120.01	4937	681	13.8%	118	2.4%	799	16.2%
1120.02	5309	769	14.5%	102	1.9%	871	16.4%
1121.02	4300	349	8.1%	51	1.2%	400	9.3%
1121.03	4434	309	7.0%	88	2.0%	397	9.0%
1121.04	3194	330	10.3%	49	1.5%	379	11.9%
1122.04	4608	416	9.0%	103	2.2%	519	11.3%
1122.06/05	3346	318	9.5%	77	2.3%	395	11.8%
1122.07	4793	325	6.8%	75	1.6%	400	8.3%
1122.08	2241	129	5.8%	6	.3%	135	6.0%
1122.09	8671	586	6.8%	141	1.6%	727	8.4%
1122.10/11	11934	724	6.1%	148	1.2%	872	7.3%
	-----	-----	-----	-----	-----	-----	-----
TOTAL	201512	23510	11.7%	4046	2.0%	27556	13.7%

Source: 1980 U.S. Census

6. Integrate Data Sets

At this point, we would begin integrating secondary data with Census data to develop a best estimate of today's conditions. Total population by census tract, labor force (an indication of commuters) by census tract, number and location of elderly and handicapped, etc. In addition, we would develop area-wide adjustment factors from the secondary data sources to modify 1980 census values (if required), and display this information on an overlay (or series of overlays) on your wall map. Furthermore, we would locate and display all major traffic generators using a color scheme to identify possible trip interchanges; e.g.,

Red = Elderly population, and senior centers, hospitals, etc.
Blue = Handicapped population, and rehabilitation facilities
Green = Labor force population, and major employment centers
Yellow = 18 and under population, and schools
Orange = Motels, hotels, and tourist attractions
Pink = Other generators (e.g, shopping centers, public buildings, etc.)

7. Evaluate Data

All information would be carefully evaluated. If there was any question relative to "overall" reliability, we would suggest a small sample primary data collection effort to refine and validate, otherwise -----

8. Summarize Information

We would summarize all information as concisely as possible in the form of a report titled:

AN ASSESSMENT OF PUBLIC TRANSIT NEEDS

IN

_____

The report would contain appropriate graphics (e.g., number of elderly by Census tract), and statistics relative to the need for public transit services; e.g.,

a.) There are 5000 elderly residents within our service area that, in our best judgement, are dependent on public transportation.

b.) It is estimated that there is a need/potential to transport 50 visitors/tourists per day between motels/hotels and attraction 1.

c.) It is estimated that a minimum of 500 workers/commuters are in need of public transportation, and would benefit from a well-structured vanpool program, or expansion of our dial-a-ride service.

d.) Etc.

Briefly, that is basically how we (a transportation planning consulting firm) would proceed. We would, as a result of this process, develop a good understanding of the characteristics of the service area, and the need for public transit by market segment. This understanding will materially assist in establishing goals and objectives, and in guiding decisions relative to the type and extent of service to provide. You can, of course, accomplish the method outlined independently -- and we encourage you to do so. It won't take too much of your time, but will put you in a position to respond to questions and negotiate for funding from a factual basis.

Let's now move to Chapter III and review how we can use this data to estimate demand for public transit services.

Chapter III - ESTIMATING DEMAND FOR TRANSIT SERVICE

A. Introduction

Upon completion of the work outlined in Chapter II, you will have available a map of your service area sub-divided into a number of areal units. These units may be traffic zones, census tracts, political jurisdictions, etc. You will also have basic demographic information available for each areal unit; e.g.,

Zone	Elderly	Handicapped	Total	Dwelling Units	Autos	Median Family Income	Etc.
1	120	30	1000	357	360	18,000	-
2	90	15	1500	600	1500	35,000	-
N	88	16	800	266	320	22,000	-

Furthermore, your map will display the location of major traffic generators; e.g., schools, hospitals, senior citizen centers, office buildings, manufacturing plants, etc. In other words, you will have developed/constructed a transportation planning database.

The development of your transportation planning database is the first and easiest step in estimating demand for transit services. The next step is to convert these data into demand for transit service or, in the terminology of the transportation planner, transit trip origins and destinations or transit trip productions and attractions. Finally, if you are interested in knowing about travel patterns or trip interchanges in your service area, you must develop a procedure to link transit trip productions to transit trip attractions.

To accomplish these demand estimates, the transportation planner would construct and calibrate three planning models; i.e., the:

1. *Trip Generation Model* -- a model describing the relationship between trip-making and land-use socio-economic characteristics. The trip generation model answers only one question; i.e., How many trips start or end in a given analysis unit?

2. *Modal Split Model* -- a model describing the propensity for trip-makers with varying socio-economic and trip characteristics to use public transit. For example, a

high income trip-maker owning three automobiles destined to a site providing free parking for recreational purposes is unlikely to use public transit. Conversely, a low-income senior citizen is highly likely to use public transit if it is available.

3. Trip Distribution Model -- a model designed to convert zonal trip ends (productions/attractions, origins/destinations, etc.) into travel movements or, in other words to tell where the trips are going.

Sound complicated? It can be, but doesn't have to be. You can undertake some basic analyses that will assist you in estimating demand for transit services in a systematic, reproducible manner for both existing and future conditions.

How do you accomplish this work? Your procedures will most probably vary somewhat on the basis of the quality of your transportation planning database, however, what follows is a description of how one transportation planner would approach the problem.

B. Demand Estimation - Method of Approach

The following illustrates the method of approach that would be employed by one transportation planner to estimate demand for transit services in your area.

1. Step One

My first step would be to gather and summarize basic data for your service area, and for other service areas in the State of New Mexico; e.g.,

STATEWIDE SUMMARY

Area	Total			Elderly			Handicapped			Etc.		
	Pop.	Transit Trips	Trips/ Person	Pop.	Transit Trips	Trips/ Person	Pop.	Transit Trips	Trips/ Person	-	-	-
Your Area												
Area 2												
Area N												
Total												

I would then review these data, discard data points obviously out of the norm, and develop a few general conclusions; e.g., It appears that the demand for transit service in my area is x trips/person, y trips/senior resident, z trips/handicapped resident, etc. Transit demand is therefore x total trips, y senior trips, z handicapped trips, etc. My area differs from the statewide average as follows.

2. Step two

My next step would then be to use the result of Step 1 as a control total, and begin the process of distributing total trip productions to my transportation analysis zones; e.g.,

TRANSIT DEMAND - MY AREA

Zone	Elderly			Handicapped			E t c.			Total		
	Pop.	Trips Elderly	Trips	Pop.	Trips HandL	Trips	-	-	-	Pop.	Trips/ Person	Trips
1												
2												
3												
N												
Total												

I would do this in three steps; i.e., I would first insert known values in the appropriate cells (e.g., I know that 200 seniors live in zone 3 and that they made 5000 transit trips last year, or 0.10 transit trips/senior/weekday). I would then compare my known trip production rates to my overall control totals, and try to explain the variations in terms of an "independent" variable; e.g., transit trip demand is a function of income or auto ownership or some similar independent variable. I would, in effect, try to construct a table similar to that which follows specifically for my area -- a table you might want to use if you don't have anything better. Finally, I would fill-in blank cells using my control total rates. It should be recognized that this approach is not perfect, however, it is quick and easy. Furthermore, your control totals should be within acceptable limits of accuracy.

EFFECT OF AUTOMOBILE OWNERSHIP ON TRIP GENERATION AND TRANSIT USE

	AUTOS PER DWELLING UNIT			
	0	1	2	3+
Total Trips per Person	0.94	2.19	3.04	3.16
Transit Trips per Person	0.46	0.19	0.13	0.07
Percent of Person-Trips by Transit	49%	9%	4%	2%

Source: Characteristics of Urban Transportation Demand - A Handbook for Transportation Planners.

3. Step three

Next, I would try to get a handle on where these transit trip productions will go; i.e., what zones will attract these transit trip productions? To accomplish this task, I would obtain and use two valuable reference documents; i.e.,

a) Trip Generation, Institute of Traffic Engineers, 1987

b) Transportation Research Board, Report 187, Quick-Response Urban Travel Estimation Techniques and Transferable Parameters, 1978.

Both documents contain extensive information relative to trip generation, and methods to estimate total and transit demand. I would use this information to estimate trip attractions by zone (again using known available data where possible), and balance attractions to productions. Balancing is required because I used two different methods to obtain each end of a given trip. Don't worry about balancing - it is a common, accepted practice.

4. Step four

My next step would be to develop an overlay, or series of overlays, for my wall map showing transit trip productions and attractions in total, and by sub-group; e.g., elderly. It should be noted that with the development of my overlays, I have simplistically completed both trip generation and modal split modeling. I now have a handle on demand for transit service both in total and by sub-group, and the distribution of that demand in terms of transit origins and destinations by zone.

5. Step five

If knowledge relative to transit demand is not good enough for my purposes (I want to know, for example, that on the average weekday there are 50 transit trips from zone 2 to zone 50, 15 senior trips from zone 10 to zone 20, etc.), I would study NCHRP Report 187. This report was written for the transportation planner that does not have access to computer facilities. Following the procedures in the manual, you can sit at your calculator and perform the trip distribution process. If you don't like to calculate and have a microcomputer, you can obtain a computerized version of these procedures from the Federal Highway Administration (QRS II).

The preceding has described one approach to estimating demand for transit services in small urban/rural areas. It would obviously be advantageous if all areas in New Mexico decided to undertake a demand estimation development effort using similar techniques, variables, etc. Consolidation of the results would easily translate into a menu-driven computer model that could be used by any property to; e.g., estimate the demand for transit services by sub-group between any two points in the service area.

C. Concluding Comment

One other method you might consider would be the conduct of a small sample travel survey. Briefly, about 1% of the households in your service area would be randomly selected and asked to participate in your survey by keeping a travel diary for a specified number of days (e.g., three). For each participating household, you would collect basic socio-economic data; e.g.,

- Type household (single family, apartment, mobile home, etc.)

- Persons at this household

Person	Sex	Age	Emp. Status	Disabled (yes - no)
1				
2				
3				
4				
5				
N				

- Number of automobiles at this household:_____

- Median family income:

  less than $20,000
  $20,000 - $35,000
  $35,000 - $50,000
  greater than $50,000

- Other information of interest to your community.

Each participating household would be requested to complete a travel diary recording information similar to that shown below, for example -

Trips Made

Day of Travel	(5/19/90)
Person Number	(1)
Trip Number	(1)

Trip Origin	(Home)
Trip Destination	(City Hospital)
Mode of Travel	(auto driver, auto passenger, bus, taxi, etc.)
Start - Time	(7:35 a.m.)
Arrival - Time	(8:00 a.m.)
Purpose of Trip	(work, business, medical, social, etc.)
Number in Car Including Driver	(3)
Type Parking	(street free, street meter, etc.)

Trips Needed but Not Made

Day of Travel	(5/20/90)
Person Number	(3)
Trip Origin	(Home)
Trip Destination	(100 Main Street)
Trip Purpose	(medical)

The results of your survey will tell you everything you need to know about travel in your area; e.g., total trips/person, transit trips/person, transit trips by income level, mode split (% transit), trip distribution, trips by purpose, unmet demand, etc. Although your small sample survey will not produce 100% accurate data, it would be of significant value in adjusting or calibrating your previous results, and provide you with a wealth of information that is impossible to otherwise obtain.

Chapter IV. HOW TO INVENTORY LOCAL TRANSPORTATION SERVICES

A. Introduction

Justification of need is an important element of the Section 18 program evaluation process, both for the startup of new programs and the continuation or expansion of existing ones. The potential to coordinate Section 18 transportation services with other programs and providers, both public and private, is also a major factor in determining program suitability and the allocation of funding. Both of these considerations require an in-depth knowledge of existing local transportation services.

This chapter outlines one method that can be used to inventory existing local transportation services to determine: service type, hours of service, response times, capacity, fares, and other important information.

A comprehensive inventory must consider all types of transportation service being provided within the area including: fixed route service; specialized agency transportation; school transportation; taxi service; charter service; local rail service; organized rideshare/vanpool programs; and, any volunteer programs.

Upon completion, the inventory of transportation services can be compared to the previously discussed transportation needs and demand information to develop a clear understanding of the current level of service, and unmet needs.

B. The Inventory Process

1. The Inventory Process - Step 1 (Assemble Data)

The first step in the inventory process is to assemble a listing of local service providers. You probably already know who most are, however, to assure that none are missed it is suggested that you:

- Review the telephone directory's human service and transportation listings.
- Contact the New Mexico State Corporation Commission, and other state and local regulatory agencies.
- Contact local government officials and major employers.
- Contact local human service agencies such as the American Red Cross and the Cancer Society.

In addition, you should review the recently completed brochure produced by the American Custom Map Company that summarizes transportation service providers of all types throughout the state of New Mexico.

The objective of this step is to prepare a comprehensive, complete listing of the names and addresses of all companies, agencies and other groups that provide transportation service in your area.

2. The Inventory Process - Step 2 (Conduct Survey)

Once a complete listing of local service providers has been assembled, each should be requested to complete an "Inventory of Available Transportation Service" survey similar to that included in the Appendix to this chapter. Briefly, the survey should be mailed with a cover letter explaining its purpose and importance, and soliciting cooperation and response.

You can be assured that considerable telephone follow-up will be required on your part to achieve a 100% response (your objective). It is not that most people are uncooperative, only that they (like you) tend to day-to-day operational problems first, and less pressing issues second. Telephone follow-up will assist in moving completion of your survey to a higher priority. In addition, there are two other methods that you can use to assist in achieving your goal of a 100% return; i.e.,

- Arrange to have the cover letter signed by an important local person; e.g., your mayor.

- Appeal to the respondents' local pride; e.g., "Completion of this survey will assist in improving transportation service for your friends and neighbors."

3. The Inventory Process - Step 3 (Summarize Results)

Upon return of completed survey forms, all should be clearly summarized and documented. If you are careful in performing this summary, you will produce a document that can be used in discussions/negotiations with the NMSHTD and other funding agencies relative to needs, unmet needs, and associated financial implications.

To assist in getting started, a form titled "Transportation Inventory Matrix" has been included in the Appendix to this chapter. The form presents one method of summarizing and displaying some of the more important information included on the survey form. It is recommended that it be reviewed for its application in your area, however, it is further suggested that you study your returns and consider other summarization methods; e.g.,

- A composite survey form summarizing total results.
- A spreadsheet summarizing individual and composite results.
- Etc.

Irrespective of the summarization method you select, it is imperative that appropriate information be transferred to your wall map to provide a visual description of the level of transportation service in your area. For example, a simple display of provider service areas will immediately identify areas with no service. In addition, a display of vehicle availability and total demand by area/sub-area will identify areas that are inadequately served.

Discussion relative to information and indices that can and should be developed from the transportation service inventory could continue (e.g., vehicle capacity/user, clients/square mile, turn downs/sub-area, etc.), however, it is more important to conclude this chapter with the following general comments.

- A conscientious effort on your part in performing a comprehensive analysis, summarization and documentation of needs, demand and service will materially assist you in your discussions/negotiations with funding sources relative to transportation problems/opportunities in your area. If you have the facts readily available, you discuss/negotiate from a position of strength.

- Factual information for your area will materially assist the NMSHTD in the development and implementation of equitable public transit programs and policies statewide.

APPENDIX CHAPTER IV

> Inventory of Available Transportation Service Survey Form

> Transportation Inventory Matrix

INVENTORY OF AVAILABLE TRANSPORTATION SERVICE

- PROVIDER NAME: _____
- PROVIDER ADDRESS: _____

  _____
- CONTACT PERSON

  NAME: _____

  TITLE: _____

  PHONE: _____
- Indicate the type(s) of transportation service you currently provide. (Check all that apply).

  _____ Fixed Route
  _____ Taxi (exclusive ride)
  _____ Demand Response (shared, Dial-A-Ride)
  _____ Agency (exclusive to agency clients)
  _____ Specialized (lift or ramp equipped)
  _____ Ambulance or ambulet
  _____ School
  _____ Charter
  _____ Limo
  _____ Rail
  _____ Rideshare/Vanpool
  _____ Other: _____
- Is your company/agency considered (select all that apply)-
  ___ Public ___ Private ___ Non-profit ___ For-profit ___ Other: _____
- Describe the client base that is served by your transportation company/agency. (Example; elderly-65+, disabled, general public, low-income, school-elementary level, etc.)

_____

_____

- Approximately how many clients are certified to use your service? _____
- Describe your days and hours of service. (Example: Mon-Fri 8:30 A.M. to 5:00 P.M.)

_____

_____

_____

- Describe your geographic area of coverage.

_____

_____

- Approximately how many square miles are in your service area? _____

- Describe the procedure used by a client to access your service. (Example; pre-register, proof of age required, advance reservation-24 hrs., same day, etc.) Include phone # to call, and office hours.

_____

_____

_____

_____

_____

- Are there any restrictions on trip purpose?
  ☐ Yes ☐ No

  If yes, please describe, (example; medical only).

_____

_____

_____

- Please provide the following information for your vehicle fleet.

Number	Type	Passenger Capacity	# Lift Equipped	# Ramp Equipped	# Radio Equipped
	Sedans				
	Vans				
	Mini bus				
	Bus				
	Other:				
	Other:				
	Other:				

- What funding sources are used for vehicle procurement/replacement?

_____

- Is any of your service subcontracted to another company/agency? Yes ☐ No ☐

  If yes, please complete the following:

  Subcontractor: _____
  Address: _____
  _____
  Contact: _____
  Phone: _____
  Amount of service subcontracted: $ _____ trips/month _____

- Describe your fare structure. (Example: Flat fare of $2.00, $1.00 + $0.05/mi., etc).

_____

_____

_____

_____

- Please provide the following service information.

Number of One-Way Trips Per Month	Number of Turn-Downs Per Month	Reasons For Turn Downs (example; no service Saturday, exceed vehicle capacity 9 a.m.-11 a.m. weekdays, etc.)

- What other transportation services are available in your area?

_____

_____

_____

_____

_____

_____

_____

- If other transportation services were available, would you:

_____ Continue to provide service at your current level.
_____ Shift clients to other services if appropriate.

- Include any comments concerning transportation service in your area.

_____

_____

_____

_____

_____

_____

TRANSPORTATION INVENTORY MATRIX

SERVICE PROVIDER	CLIENTS SERVED	HOURS OF SERVICE	GEOGRAPHIC AREA OF	PROCEDURE TO ACCESS	TRIP PURPOSE/SYSTEM	VEHICLE INVENTORY	FARE	NUMBER OF ONE-WAY	UNMET REQUESTS
EXAMPLE: Community Transit Co. 123 Main Street Anytown, NM 12345 (505) 123-4567 Mr. John Doe Public - not for profit Demand-Response	Elderly (60)+ Disabled General Public	Weekdays 9 a.m.-5 p.m. Saturday 9 a.m.-3 p.m. No Sunday or Holiday	County-Wide Some out-of- county available by special arrangement	Elderly/Disabled must preregister advance notice (24 Hr.) required call 234-TRIP M-F 9 a.m.-5 p.m.	Medical & Shopping trips given priority Other purposes on space available basis	10 - Vans (3 lift equiped) (1 ramped)	General public $1.00 Elderly/ Disabled $0.50	2,000	30 a week Due to lack of vehicle space

TRANSPORTATION INVENTORY MATRIX

SERVICE PROVIDER	CLIENTS SERVED	HOURS OF SERVICE	GEOGRAPHIC AREA OF	PROCEDURE TO ACCESS	TRIP PURPOSE/SYSTEM	VEHICLE INVENTORY	FARE	NUMBER OF ONE-WAY	UNMET REQUESTS

Chapter V. ALTERNATIVE TRANSPORTATION SYSTEMS

A. Introduction

This chapter provides a description of alternative transportation systems and a means for determining the local suitability of each.

Structuring a transportation delivery system designed to meet the service demands of the future, sensitive enough to satisfy the increasingly complex needs of the elderly and disabled, and flexible enough to compensate for fluctuations in funding is not an easy task -- especially in rural areas.

Projected increases and changes within the elderly population group, such as an increased proportion of frail elderly (75+), and increased interest in providing in-home services (or assisted trips) to prevent or delay premature institutionalization of older persons, will all continue to place additional demands upon transportation delivery systems.

In addition, advances in medical technology and the current trend toward deinstitutionalization and "mainstreaming" of previously non-transit dependent clients have contributed not only to an expansion in the types of disabilities being encountered, but have also greatly increased the number of people seeking specialized transportation services. The greater emphasis being placed on group living and home delivered services in order to maintain independence, and an increased awareness of the mobility needs of the institutionalized for therapeutic value, are also factors contributing to this growing demand.

To achieve the goal of providing safe, effective, and efficient service that meets the increasing needs of the area, a transportation delivery system must make the most efficient use of all available local resources including;

- Fixed Route Service
- Deviated Fixed Route Service
- Paratransit Service
- Special Paratransit Service
- Rideshare/Vanpool Service
- Volunteer Network

Frequently, a number of these transportation resources are operating concurrently within a single area. Unfortunately, they are often operated independent of one another, rather than as a coordinated system which results in decreased efficiencies and cost effectiveness. After discussing these various types of transportation systems, this chapter continues with a discussion concerning the coordination of transportation services and the benefits associated with coordination.

B. Types of Transportation Systems

1. Fixed Route System

Fixed route transportation services are generally provided along specified routes, with scheduled arrival times at predetermined bus stop areas. The service does not deviate from the route or times that have been specified and advertised. The service is most often provided by utilizing medium to large size transit coaches, streetcars, or light-rail vehicles, i.e., 18-35 passenger capacity. In the smaller urban or semi-rural areas, small buses or vans can be used, e.g., 11-20 passenger capacity.

Fixed route transit systems are effective in meeting the demand for inner-urban and suburb to urban trip types, but often fall short in meeting the suburban to suburban, rural, and specialized (i.e., elderly and disabled) trip types. The advantages of a fixed route system are: the service can be accessed without the need for prior reservation, there is little need for client prescreening or registration unless offering discounted fares to specific passenger types (i.e., elderly, disabled, or student); and, large numbers of people can be transported at one time on a single vehicle.

The disadvantages are: access to the system is limited to predetermined stops and times; access is difficult or impossible for many elderly and disabled clients; and, large transit coaches are aesthetically unpleasant in quiet suburbia and have difficulty negotiating narrow streets.

Realistically, improvements to, or expansion of, fixed route systems in rural areas, to accommodate needs are generally not cost effective. However, a plan to encourage the use of existing fixed route systems, and the development of a transit information system to disseminate up-to-date route and schedule information, should be a primary consideration in any transportation plan.

The Greyhound Rural Connection Program is an example of encouraging the use of an existing fixed route system (intercity) in combination with rural fixed or non-fixed route systems. It can assist in efforts to provide access to regional facilities that are outside of the local transportation service area. More information on this program is included in the Appendix to this chapter.

2. Deviated Fixed Route System

Deviated fixed route service is a more cost effective method of providing transportation service in rural areas. It is usually run with small buses or vans, and is somewhat structured as to day, time of day, and geographic area of coverage. Limited route deviation at point of origin and point of destination is permitted, depending upon the maximum increase in time or distance that the route deviation will cause. Routes may vary by day of the week, in order to reach a greater geographic area of coverage.

Deviated fixed route service may, for example, be instituted to transport rural residents to an urbanized medical center for treatment. A proposed system plan might pickup residents from a number of locations in the eastern portion of the

service area on the first and third Monday of the month, and repeat the procedure on alternate Mondays in the western portion of the service area.

Passengers may call in advance for route deviation, or may access the system at predetermined route stops. Some systems permit passengers to access the system at any point along the fixed route portion by flagging the driver. Other systems, especially in rural areas, may only be accessed through advance reservation, i.e., the bus doesn't run if no one has called to schedule or if the ridership for a particular day is minimal. In the latter case, passengers are asked to shift their trip to another day to achieve maximum efficiency.

3. Paratransit Services

Paratransit is a term that has come to mean many things to many people. Some states define paratransit in terms of vehicle type and number of passengers. Others have a much broader definition -- any means of shared ride transportation other than fixed route. In general, paratransit services are supplemental services intended to accommodate those clients who are unable to utilize fixed route due to a mental or physical handicap, or due to age. In most cases, these services are operated as advance reservation, door-to-door or curb-to-curb, demand response systems. Correctly administered, paratransit can be a very cost effective method of meeting the service demands of a large area.

Paratransit service can be provided by taxi, van, or small bus, and through contract with a variety of service providers such as non-profit agencies, transit authorities, volunteer organizations, and private for profit concerns such as taxi companies.

Paratransit services may be used as a "feeder" service to a fixed route system, or may be used as replacement service for those portions of a fixed transit system that cannot be justified due to insufficient ridership counts or poor revenue to cost ratios (e.g., evening or weekend routes).

Paratransit service can be operated as "call and demand" (like a taxi service), or as advance reservation; i.e., passengers call ahead (usually a minimum of 24 hours prior to the desired trip date) to reserve a space on a vehicle. Some systems use a combination of the two service types; i.e., trips reserved in advance are guaranteed and those called in for same day service are accepted on an "as available" basis. Paratransit services can also be provided on a "subscription" basis to accommodate those passengers making frequent or daily trips to the same location; e.g., a trip every Monday at 10:00 a.m. for the next three months for dialysis.

The advantages of a paratransit system are that it can provide service over a larger geographic area of coverage, can accommodate the needs of the elderly and disabled, and can be operated with smaller, more comfortable, and less expensive vehicles. The disadvantages are that passengers must share use of the vehicle, and do not travel directly from origin to destination. Also, the scheduling of vehicles in a paratransit system is more complex than in a fixed route system and requires an in depth knowledge of both the geography of the area and the characteristics of the client base.

4. Specialized Paratransit Service

Specialized paratransit services are similar to the above except that more attention is required due to the mental or physical limitations of the client. Special paratransit services include lift or ramp equipped vehicles, ambulances, and specially trained drivers or attendants.

Specialized paratransit services are often provided in conjunction with fixed route public transit as a means of accommodating those passengers unable to access the fixed route system. Changes in the Urban Mass Transportation Administration Section 504 regulations, and the proposed Americans with Disabilities Act, may significantly impact and alter this relationship. The status of these two regulations should be considered in planning for any new systems, or in modifying existing ones.

5. Rideshare/Vanpool Service

A well structured rideshare/vanpool program, while limited in meeting the needs of the wheelchair client, can be effective in meeting the more structured needs of the elderly or the non-wheelchair disabled. Daycare, senior center, training, or work site trips made on a frequent or daily basis can be partially accommodated by this mode.

In any rideshare program, a centralized, coordinating agent or agency must be established to maintain records, process requests for information, and match potential riders. This can, for example, be a service offered by the local governmental unit, planning commission, Chambers of Commerce, social service agency, senior center, or local employer such as a hospital.

The methods for maintaining the client data base and providing potential matches can be a manual or computerized operation depending upon the size of the data base and the frequency of requests. Smaller groups can be established as "carpools" and the larger, longer distance groupings as "vanpools".

6. Volunteer Network

Volunteer transportation programs that try to match requests for transportation with the geographic area in which the volunteer driver or vehicle is available, can be effective for trips that are difficult to provide by any other mode. A volunteer organization can also be utilized to provide escort service to clients who live within an area that has access to fixed route or paratransit service, but cannot utilize that service without the help of another person. The retired community is a vast resource for volunteer positions, and program participants can gain great personal satisfaction knowing that they are helping others. The main drawback to this type of program is the problem of insurance and liability.

An example of an innovative approach to addressing transportation problems by using volunteers is the Huntsville Volunteer Van Demonstration Project in Alabama. Under this program, the City purchases and reconditions a used passenger van and turns the vehicle over to a needy neighborhood to solve its critical transportation

problems. The neighborhood, through its management association, bears the responsibility for all costs except maintenance, which is provided by the County under a special contributory arrangement.

An important source of volunteers is the Retired Senior Volunteer Program (RSVP). This program is a part of ACTION, the national volunteer agency and is a locally directed, but federally legislated grant program (Domestic Volunteer Services Act of 1973). The program focuses on stimulating the participation of older Americans in significant community volunteer service. RSVP volunteers contribute their time and talents in many ways, including transportation and escort services in rural areas. A copy of an RSVP brochure has been included in the Appendix to this chapter.

C. The Coordination Concept

Transportation coordination can be defined as a cooperative arrangement between transportation providers, and organizations or individuals needing transportation services. It is designed to capitalize on the benefits associated with the joint operation and/or administration of one or more transportation related functions.

This simply means that in every area there are people who need transportation and people who can provide transportation. In a coordinated system, the two are matched to meet the clients needs in the most cost effective manner possible.

Providers of transportation may include transit authorities, human service agencies, volunteer programs, private non-profit agencies, private for-profit companies, etc. Purchasers include the general public, elderly and disabled, agency sponsored clients, commuters, students, etc. Typically, there are multiple service providers in any given area that are transporting the same or neighboring clients, using different vehicles and different funding sources.

In a non-coordinated system, for example, Passenger A is picked up at 9:00 am by a 16(b)2 funded vehicle for a trip to the local senior center. Passenger B who lives three doors away is picked up at 9:00 am by the local taxi company for a Medicaid funded trip to a doctor's office that is next door to the senior center. Passenger C, from the same area, is picked up at 9:10 am by a Section 18 provider for a trip to the grocery store across from the senior center.

This example illustrates the need for coordination of transportation services. In the past, everyone has "done their own thing". Funding such as 16(b)2 and Section 18 has been available for vehicles, people have been transported, and the attitude has generally prevailed that no one else can care for my clients the way I can. Today, however, this approach is changing for a number of reasons including the following:

- Costs are increasing; e.g., gasoline, insurance, wages, vehicle replacement, etc.

- Funding is decreasing at the federal, state, and local level.

- Available resources are decreasing; e.g., the volunteer pool is drying up, neighbor and family help is often not available.

- Demand is increasing; e.g., increased numbers of elderly and frail elderly, deinstitutionalization, mainstreaming, mobility needs of the institutionalized for therapeutic purposes, etc.

These factors challenge even the most progressive agencies in their ability to continue to provide quality, safe, efficient service at a reasonable cost.

In addition, another reason for coordination is that most major funding sources encourage or require coordination efforts. Section 18 is a major funding resource in rural and small urban areas. The goals of the program as stated by UMTA are:

To enhance the access of people in non-urbanized areas to health care, shopping, education, employment, public services and recreation; to assist in the maintenance, development, improvement, and use of public transportation systems in rural and small urban areas; to encourage and facilitate the most efficient use of all federal funds used to provide passenger transportation in non-urbanized areas through the coordination of programs and services; and to provide for the participation of private transportation providers in non-urbanized transportation to the maximum extent possible.

D. The Benefits of a Coordinated Transportation System

The benefits of a coordinated system are numerous. They include:

1. Elimination of duplicated transportation services

2. Reduced duplication of effort

3. Increased service capacity

4. Improved vehicle productivity and operating efficiency

5. Cost reduction in purchasing

6. Reduced asset input

7. Improved service quality

8. Improved service availability

9. Better involvement of community members

The bottom line is more transportation service can be provided to a greater client base, within a larger geographic area, at a lower cost in a coordinated than in a non-coordinated system.

E. Organizational Structures In a Coordinated Transportation System

Although any single aspect of any transportation system can be coordinated, (e.g.,vehicle maintenance, operations, administration, purchasing, grants application, etc.), this discussion focuses on total program coordination. The decision to implement total coordination is very different from the decision to coordinate a single aspect of transportation delivery; i.e. it involves a potential role change for existing agency transportation providers. Existing service providers (agency or otherwise) who wish to participate as a provider of service within the coordinated system are provided an opportunity to participate through the competitive bid process. Otherwise, the participating agencies transfer the responsibility for transporting their clients to the coordinating agency. For purchasing agencies, the only change is contracting with the coordinating agency, rather than their current provider(s).

Some agencies currently providing transportation to their clients may be hesitant about making a commitment to this organizational structure. The incentives in cost savings, increased service capacity, and improved quality of service should, however, be closely examined prior to making a decision.

Some possible organizational structures to be considered in implementing a coordinated system, and the advantages, and disadvantages of each follow:

1. Information and Referral Service

One central source of information exists for public transit, private contractors, and agency information. The client (or agency) contacts the recommended provider directly to arrange for a trip. This system is easy to implement, low in cost, and serves to increase the vehicle load factor. It does little, however, to eliminate duplication of services, decrease required resources, or improve service quality.

2. Time Sharing or Ride Sharing Clearinghouse

One central agency maintains information on participating agency's vehicle schedules. Other agencies or individuals may purchase needed service through the central agency on a ridesharing or timesharing basis. The vehicles remain under control of the individual agencies. This system is easy to implement, low in cost, and increases the vehicle load factor. It provides a slightly higher level of coordination than Information and Referral, but does not accomplish complete coordination objectives.

3. Single Agency Control

One agency, such as a transit authority, exercises control over the trip reservation process and, in addition, provides all service. Individual agencies certify client eligibility, and then purchase services from the authority. The success of this system is dependent upon the quality of the single agent in control. It provides little or no opportunity for private sector involvement, little quality of service control by the purchasing agencies, and no competition which assists in controlling cost

and quality of service. There must be some method of assuring that the participating agencies are being assessed a fair share of the cost for the service that they are receiving.

4. User-Side Subsidy

One agency, such as a local transit authority, controls certification of providers, registration of clients, fares, service area, days and hours of operation, etc. All trip reservation and scheduling functions are performed by the certified providers. The passenger is free to choose any provider, and may receive fare vouchers or tickets from a sponsoring agency. This type program is successful in areas where there is an availability of multiple service providers; i.e., competition is needed to keep quality of service up and cost down. The user-side subsidy type program does little to eliminate duplication of service and optimize vehicle productivity, and requires a well structured monitoring program.

5. Broker/Provider

One agency receives trip requests and in addition to providing a portion of the requests, assigns the balance to various other providers. This system accomplishes most objectives of a coordinated system. To be successful, the broker/provider must be viewed as an impartial entity by the other participating service providers. This is difficult to accomplish when assigning as well as providing trips. The natural tendency is to service the most profitable trips in-house, and assign the less profitable or more difficult trips to other agencies. Also, there is the question of whether a provider of service can be an effective self monitor.

6. Broker/NonProvider

One agency receives all trip requests and assigns each to the most appropriate service provider. This system accomplishes all objectives of a coordinated system, and eliminates the problem of the broker being viewed as biased in trip assignment since the broker is not a service provider. The broker's main purpose is to serve the public and arrange for the best possible solution to their transportation needs, within the budget and regulations set by the controlling agency (or consortium) and funding agencies.

A graphic summary of the degree to which each of the identified organizational structures meets the previously defined goals and benefits of a coordinated system has been included in the Appendix to this chapter.

F. Implementing a Coordinated Transportation System

Experience has shown that success in implementing a coordinated transportation system is dependent upon four key factors. They are:

1. Strong and capable administrators who understand fiscal and transportation management, and are capable of working with diverse agencies, structures, and policies.

2. A commitment to the integration process by state and local officials and a willingness among these officials to become involved in the negotiation process which accompanies the development of a transportation system.

3. Well thought out plans which attempt to address all potential obstacles in detail and provide an incremental approach to implementation which focuses on the steady movement toward the goal of total service coordination.

4. A fare structure designed to assess agencies and passengers equitably for services delivered, regardless of the categorical funding stream paying for the service.

An incremental approach to the development of the system is very important. Several efforts to develop integrated systems have failed because administrators and agencies have tried to provide too much too quickly. Generally, it is better to begin by coordinating the major programs first, then folding in other programs as the system's efficiency and capacity improves, and as other agencies become confident in the system's ability to meet the needs of their clients.

Another danger of proceeding too quickly is inexperience in establishing the fare structure designed to recover operating costs. Fares set too low, or overestimated ridership, can result in large deficits from which the agency cannot recover. An incremental approach allows for periodic review and adjustment, prior to further involvement.

APPENDIX CHAPTER V

> "Rural Transit Provides Key to National Mobility"

> RSVP Brochure

> Effect of Organizational Structures on Coordination Goals

The Greyhound Rural Connection Program links rural passengers with national routes.

Rural Transit Provides Key to National Mobility

by Brenda Rice

When the bus industry was deregulated in 1982, approximately 3,400 rural communities, most served by paratransit systems, lost intercity bus service. The motor coach will probably never return to backroad travel, leaving these non-urban residents to rely on rural paratransit service for local and intercity mobility.

This fact makes rural and specialized transportation providers central to the development of a national transportation network. There is a national concern for the diminished transportation options facing rural communities, positioning the rural transit industry as one of the most logical means of linking rural passengers to the metropolitan transportation hubs where national travel can be accessed.

The transit industry rewards participation in the building of an intercity transit network with the opportunity for rural providers to expand mobility, increase growth and earn revenue from new sources. Moreover, community transit operators can enrich the quality of life for their constituents by providing access to medical, family and cultural events in the local area and across the nation.

Sue Jeffers, the Director of BUS in Frankfort, Ky. is typical of the operator sensitive to her passenger's transportation needs but faced with inadequate resources to meet them.

"My people can't get to (regional) medical facilities which are beyond my service area, so I really have no choice but to make connections with an intercity carrier," she said.

The Greyhound Rural Connection Program provides the means.

National transportation network implementation underway

In 1987, Greyhound Lines, Inc. teamed with Rural America, a non-profit organization specializing in rural transportation technical assistance, and the National Association of Transporta-

Greyhound is developing an advertising campaign for the Rural Connection Program to supplement its already familiar logo pictured to the right.

tion Alternatives (NASTA) to initiate a pilot project linking existing rural transit operators with Greyhound. Known as the Greyhound Rural Connection Program, the program currently includes 35 rural systems in nine states; work is underway to link an additional 10 states into the pipeline within the near future

The Urban Mass Tranportation Administration (UMTA) is supporting the effort in the form of a grant to the project team for the systematic expansion of the program to the remaining United States and for support services to participating rural operators. Those support services include a newsletter and travel stipends to enable operators to meet with program representatives.

Recognizing that marketing of local transit service and intercity connections is crucial to the success of the program, UMTA and the project team are developing a rural transit marketing workbook for use by rural systems and the Rural Connection Program.

The Rural Connection Program has targeted the 48 contiguous states for inclusion in the program by 1990.

The initial step in expansion of the program is a meeting on the regional level of state regulatory agencies, public transit officials and UMTA regional staff (aging commissions and other social service entities may also be included). Working relationship are established at these meetings to encourage mutual solutions to implementation problems and to facilitate cooperation in positive policy decisions.

The second step begins with meetings at the state level involving rural operators. Concurrently, Rural America and Greyhound will invite other intercity carriers to replicate the Rural Connection model and explore similar connecting networks with other modes of travel.

The Rural Connection Program has targeted the 48 contiguous states for inclusion in the program by 1990. Once this goal is achieved, rural residents from around the country will have access to a national transportation network enabling travel throughout most of the country. This will all be made possible by the combination of Greyhound's commitment to serve rural communities and rural transit industry's acceptance of the challenge to increase travel options for the shared ridership base.

Rural transit operators reap benefits

Rural operators participating in the connection program place themselves in the center of the national movement serving their local constituents and their industry. Transportation managers have long recognized that the needs of their ridership extended beyond their geographical service area and are now given more services to present to their communities. With increased public recognition and system credibility through alignment with national carriers, a new market is surfacing and regular riders have increased mobility.

Jeffers reported that, despite years of emphasizing public transit services, her system received more calls for public transit after the buses began sporting the Greyhound sign.

Long-time riders of the JAUNT system in Charlottesville, Va., though they had never before ridden Greyhound, are now using the Rural Connection Program service through JAUNT, to travel extensively on the national carrier.

Unique solutions to local transportation problems are addressed cooperatively in this partnership with the nation's largest bus company. Greyhound has been willing to spin off some spur routes or to contract certain routes to rural systems which can be more effectively served by smaller vehicles. This paves the way for broadened services and entrepreneurial roles for rural transit operators.

Rural America offers a loan program and technical assistance for operators interested in enterprise development. An article on this subject appears in this issue of *CTR* on page 11.

The new attention focused on the rural transit industry will strengthen its position in the national transportation scheme. By providing both the origin and destination of intercity trips, the industry becomes the vital link to medical, social, and economic services, leading to greater public and governmental support.

Greyhound's president and CEO, Fred Currey, has called for doubling the Section 18 funding, legislation giving community transit systems the right to deliver small packages and for the removal of restrictions which deny access to intercity travel beyond a county hub. He is also advocating for additional federal money for the development of rural facilities and for public-private partnerships to provide subsidies for the people who need service in economically unfeasible, but necessary, routes.

Marketing makes connection between passenger and transit system

The Rural Connection Program's marketing program enables transit operators to manage a comprehensive marketing effort.

Greyhound provides signs for vehicles and reproducible generic marketing materials and artwork for brochures, posters, and flyers for

individualizing and placement in the local media.

Greyhound is developing new materials with rural themes in conjunction with a national advertising campaign for the Rural Connection Program to supplement its already familiar logo.

The project team is using the UMTA grant to develop an interactive rural transit marketing workbook which guides operators in planning and customizing promotional campaigns for the Rural Connection Program as well as for the local systems' services. Generic promotional materials and easy access to Rural Connection products will be incorporated into a single source handbook.

Operators will be guided through a process which identifies characteristics of their service area and type, and matches them to the most suitable marketing approach, complete with sample generic ads. These common themes and the workbook's universal public relations tools will create a national identity for the rural transit industry.

Use of these tools by transit managers in conjunction with the Rural Connection Program will build marketing skills necessary to promote local services and gain political and public support.

Five opportunities offered by Greyhound Rural Connection Program

The Greyhound Rural Connection Program provides five central options for rural providers' participation, as summarized below. These are often combined and individualized to fit the needs of the local rural system. Greyhound staff on the regional and community level participate in coordinated service planning and Greyhound provides on-site training prior to service initiation. The five opportunities for rural participation are as follows:

- The core of the program is a "feeder" system linking existing rural transit providers to Greyhound/Trailways terminals by matching schedules and service areas, similar to the hub and spoke concept used by the airlines. Greyhound allows the local operator to use Greyhound terminals for passenger pick-up or discharge. The rural operator's schedule is published in *Russell's Official Bus Guide*, enabling ticket agents throughout the nation to refer passengers to the local system.

  The Rural Connection Program will accommodate all service and schedule types. Typically, passengers make travel and fare arrangements directly with the rural provider for the portion of the trip made on the rural system, and Greyhound pays the rural operator a commission for each passenger fed into its terminals, based on the number of miles the passenger travels on Greyhound. The rural operator invoices Greyhound using a simple coupon system.

- Package delivery to and from the Greyhound affiliated terminal and rural areas is the second option. This service offers rural transit systems the opportunity for additional revenue.

- Selling bus tickets for Greyhound/Trailways earns the local operator commissions based on ticket sales, usually without requiring additional staff. Commissions are also paid on charter trips organized or arranged by the rural operator/ticket agent. Since both systems share the same ridership base, the new service is a comfortable and profitable extension of the role of the local transit provider as the source of coordinated travel services and information.

- Sharing terminals underwrites the cost of local facility operation and Greyhound's participation often makes the difference as to whether a small agency can consider its own terminal. Greyhound is in the process of upgrading its terminals and ticket sales capabilities and is soliciting rural operators to undertake these roles locally. Selling tickets earns commissions and can usually be done without requiring additional staff.

  While tickets may be sold from the transit system's offices or other facilities, terminal duties encompass ticket sales and small package handling. Package delivery is optional or may be contracted to other carriers, such as local taxi companies. AppalCART of Boone, N.C. and G.R.I.T.S. of Owensboro, Ky. are presently acting as ticket agents and sharing terminals with Greyhound.

- Multi-modal facilities establish rural operators' transit bases — with Greyhound, cabs, and other carriers linking passengers to ground travel. Greyhound encourages development of multi-modal facilities by rural transit operators, with plans to make such facilities a stop on the Greyhound/Trailways route.

Depending upon local considerations such as existing terminal lease agreements or terminal ownership status, Greyhound may relocate its terminal in a multi-modal facility operated by a rural operator. The resulting ease of passenger transfer and increase in travel options firmly places the rural operator in the center of local and national transit.

Brenda Rice is a former rural transit operator with a broad background in human services, currently working with Rural America's intercity bus feeder project. A second feature by Rice, focusing on the experiences of rural transit systems participating in the Greyhound Rural Connection Program, will appear in the next issue of CTR.

RSVP *Share the Experience of a Lifetime . . .*

You're Invited to RSVP . . .

You've spent a lifetime—
developing your skills,
refining your talents, and building
your knowledge and abilities.

You're a rich resource—
and retirement means a great
opportunity, both for you and
for your community.

You're free to choose now—
free to decide how to use
your know-how and experience.
Now is the time to try RSVP!

What's RSVP?

RSVP, the Retired Senior Volunteer
Program, is part of ACTION,
the national volunteer agency.

RSVP exists so that someone like you—
retired, but with knowledge
and energy to spare,
can make a big difference
where you're needed the most—
in your own community.

As an RSVP volunteer, you're one
of nearly a half-million retired
volunteers, serving through 51,000
local organizations and giving
64 million hours of service each year,

Using phone banks, RSVP volunteers provide information, assistance and a friendly voice, whether on crisis "hotlines" or in reassurance programs for the homebound elderly.

Food banks are frequently staffed by RSVP volunteers. Others work with "gleaning" programs to salvage surplus produce from farms.

From starting a library in a public jail to reopening a town library that's been closed, RSVP volunteers are a vital community resource.

Can RSVP be as Good as it Sounds?

Even better!

While serving, RSVP volunteers
are covered by accident
and liability insurance.
They're also helped with incidental
expenses, such as transportation.

Most important,
as hundreds of thousands of RSVP
volunteers will tell you,
when you give yourself,
when you share your talent and time,
the great gift you give seems small
compared with the satisfaction and
feeling of accomplishment
you receive.

RSVP May Be The Answer For You.

If you're ready to share your
experience, if you'd like to balance
your leisure with service
that means something special,
RSVP is the answer for you.

RSVP—It's the beginning of a lifetime.
It's the experience of a lifetime.

Please accept our invitation to RSVP.
Share the experience.

EFFECT OF ORGANIZATIONAL STRUCTURES ON COORDINATION GOALS

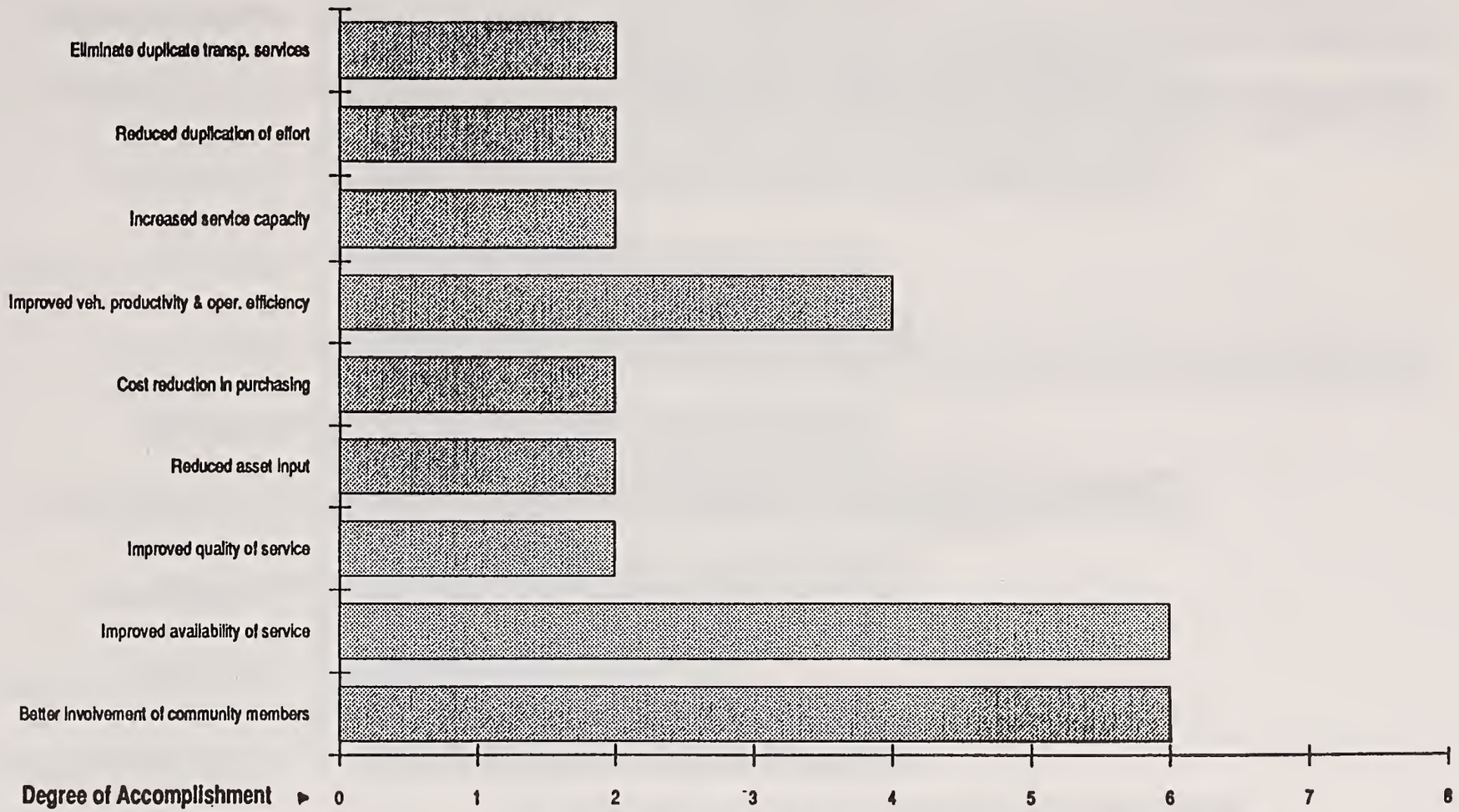

Figure 3: Goals of a Coordinated System – Information and Referral

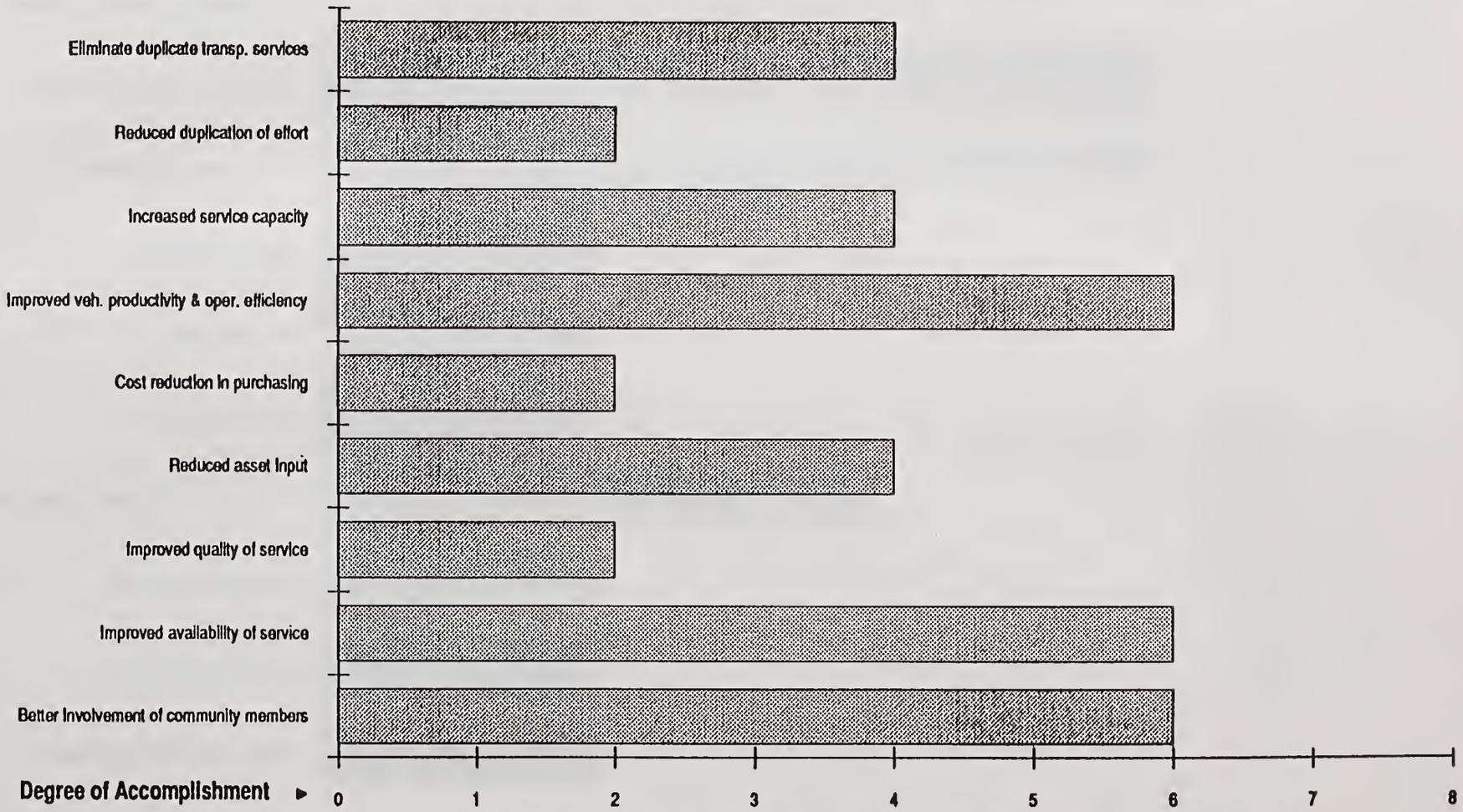

Figure 4: Goals of a Coordinated System -- Time/Ride Share Clearinghouse

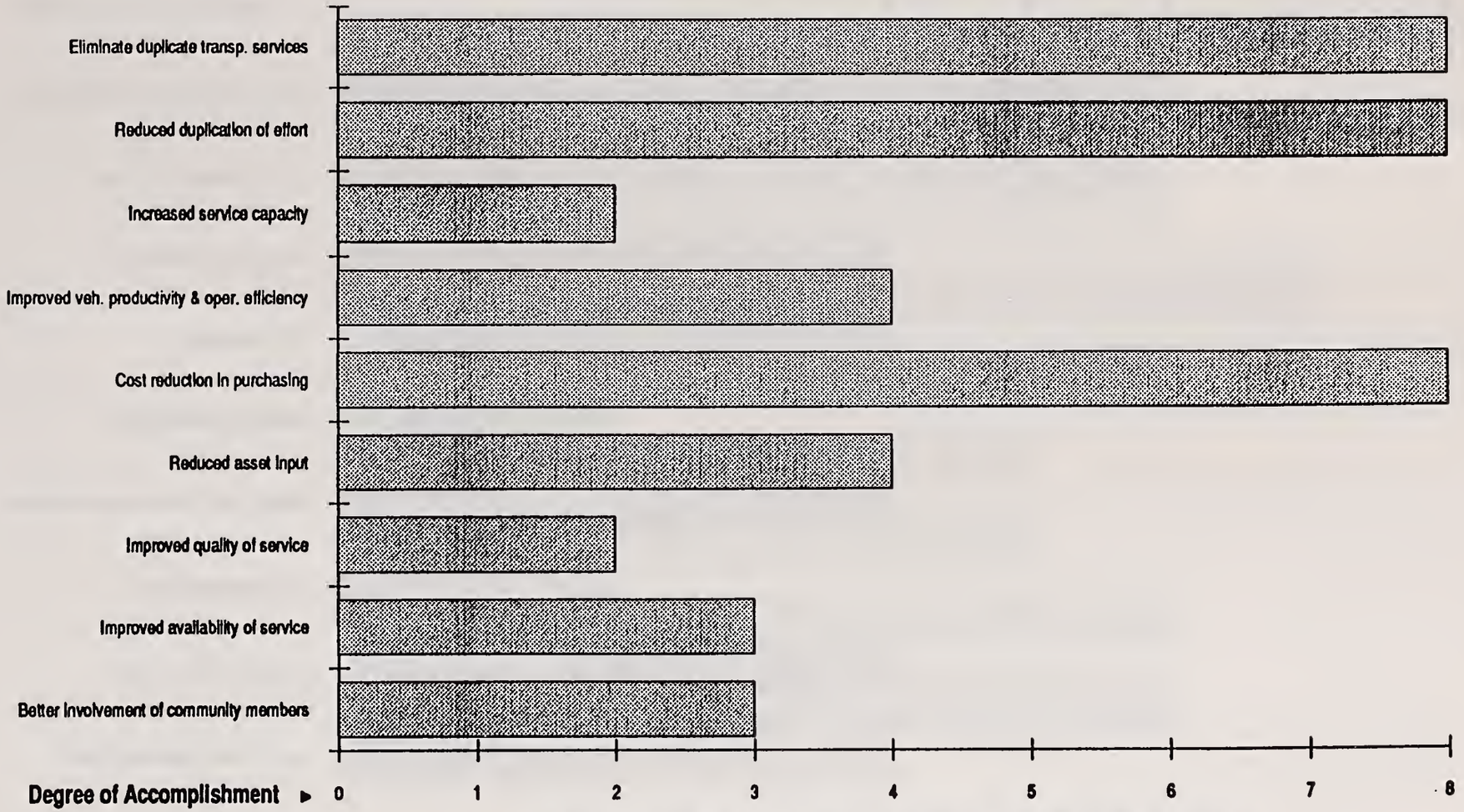

Figure 5: Goals of a Coordinated System – Single Agency Control

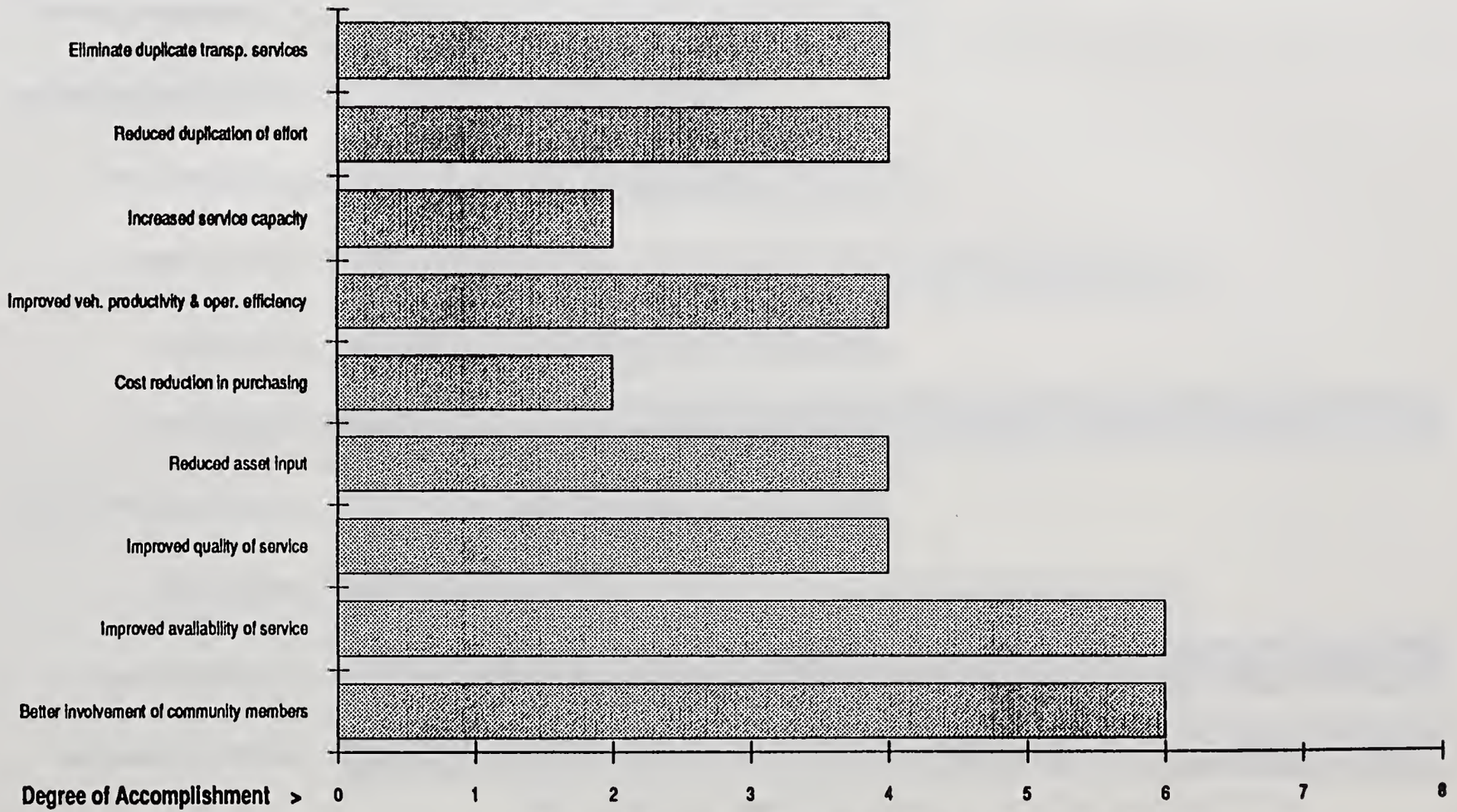

Figure 6: Goals of a Coordinated System – User-Side Subsidy

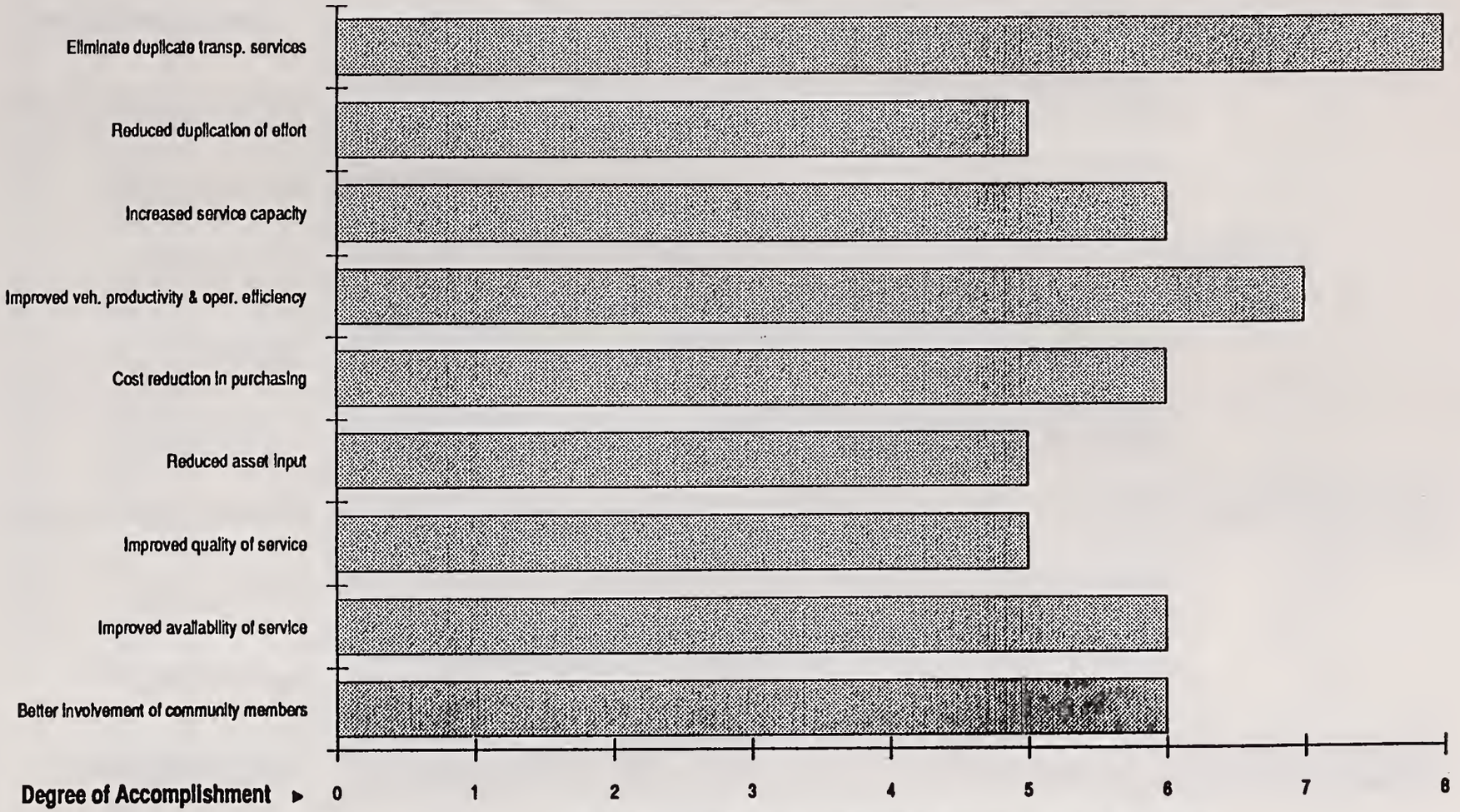

Figure 7: Goals of a Coordinated System – Broker/Provider

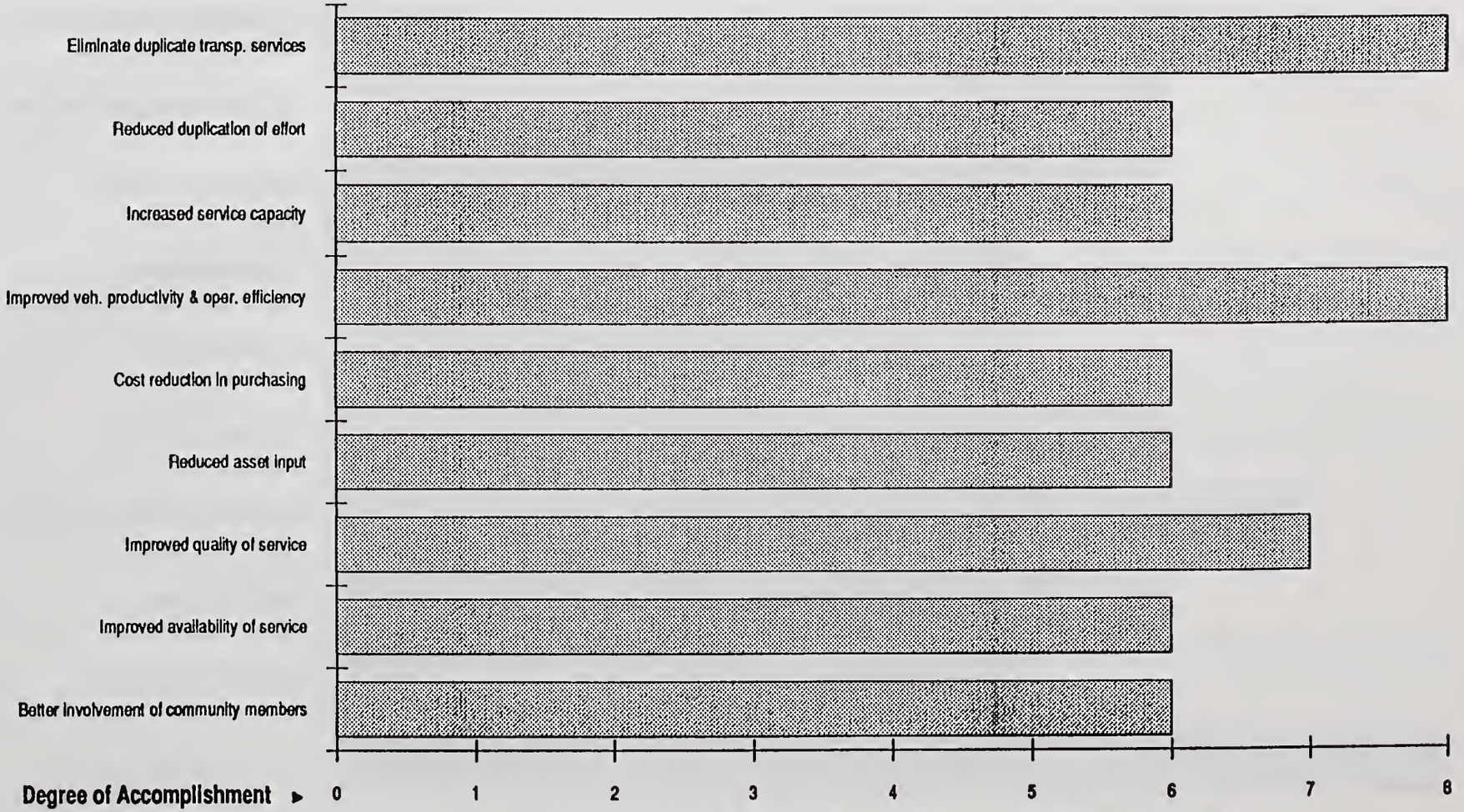

Figure 8: Goals of a Coordinated System -- Broker/Non-Provider

Chapter VI. EQUIPMENT

A. Introduction

This chapter includes a description of methods to determine possible equipment/facility needs including: rolling stock, spare vehicles, communication equipment/systems, office equipment, general space needs, wheelchair accommodations, and vehicle specifications.

Probably one of the most critical areas for cost containment in a transportation system is the acquisition and maintenance of vehicles. The number and type of vehicles should be sufficient to handle trip demand, including spares to ensure minimum disruption of service. A well structured maintenance program reduces the number of spare vehicles that are necessary.

B. Rolling Stock and Spare Vehicles

Matching the proper vehicle with the type of service provided can improve the efficiency of an operation. However, selecting that vehicle can be a difficult task. Larger vehicles (buses) may be more effectively utilized for longer trips, while smaller vehicles (vans) are better suited for dial-a-ride type door-to-door service for short trips. Mini-vans and converted vans may become uncomfortable for passengers over long distances due to the limited interior space, and are usually impractical for passenger loads of more than eleven to fourteen. A twenty-passenger small bus may be difficult to maneuver in city traffic or in narrow city streets, and is also inefficient for use with small passenger loads. Using one size of vehicle for all types of service can be a costly mistake. Therefore, it is important to carefully plan service needs prior to the purchase of a vehicle.

1. Fleet Size

Fleet size should be structured to provide sufficient vehicles for service levels based on the agency's budget for capital equipment, maintenance, operation, and administration. It is important that the budget allow for adequate maintenance activities.

Maintenance activities should include scheduled preventive maintenance as well as unscheduled maintenance (i.e., road failures, warranty repairs, etc.). The number of extra vehicles required for maintenance activities can be minimized through the following:

- Scheduling most maintenance activities during non-peak vehicle periods
- Sharing or leasing reserve vehicles from other agencies or organizations
- Maintaining a good preventive maintenance program

- Having sufficient maintenance capability or structure to ensure a quick turn around of vehicles requiring maintenance

In addition to the capital expense of extra vehicles, there is a significant maintenance cost associated with vehicles that are idle or only occasionally operated. For each vehicle beyond an agency's optimum need, the agency sustains unnecessary maintenance and capital costs. Every effort should be made to minimize the fleet size based on operational and maintenance requirements.

2. Vehicle Selection

The selection and procurement of the correct vehicle is important to the success of a transit system. Factors to consider in vehicle selection are:

- Durability: the ability of a vehicle to perform through its intended life;

- Reliability: how well a vehicle can be expected to fulfill its total assignment on a daily basis;

- Operating cost: the total cost in parts, labor, and consumables to operate;

- Capital cost: the initial cost to purchase; and

- Effectiveness: the ability to meet the operating requirements for which the vehicle is purchased.

In addition to the above factors, some basic research on vehicles and vehicle types should be done. Sources to consider in this research are:

- vehicle catalogs published by UMTA and various states;

- industry or trade shows where vehicles or vehicle information is available;

- contacting peers for their experience or opinion;

- contacting manufacturers for information concerning their product; and

- information from other agencies, such as the New Mexico State Highway and Transportation Department, American Public Transit Association, Transportation Research Board, etc.

The estimated maximum demand, mix of wheelchair and seated passengers, and the frequency of wheelchair users utilizing your system are prime factors to consider when choosing a vehicle. Other factors to consider are:

a). Service Area Characteristics

The characteristics of the service area influence both the size of the vehicle and types of optional equipment. The width of the streets and the need to maneuver the vehicle in driveways or cul-de-sacs may require a vehicle with a short wheelbase and small turning radius. Generally, the shorter the wheelbase, the shorter the overall vehicle length, the more maneuverability offered. For areas with a hilly terrain, a vehicle with a low gear ratio in final drive may be required. In contrast, the need to travel long distances on level ground at high speeds will require a high gear ratio.

b). Maintenance Considerations

The availability of maintenance facilities may also influence the selection of a particular vehicle. Local service can save a great deal of time, especially for work done under the vehicle warranty. Finding local service for certain vehicles may be difficult, especially for vehicle body repairs and wheelchair lift maintenance. To maximize vehicle utilization, it is preferable to select the smallest vehicle (remembering that some reserve seat capacity is desirable) that can safely and comfortably accommodate the anticipated demand.

c). Weight Capacity and Dimensions

The vehicle weight capacity should also be taken into consideration when selecting a vehicle. The gross vehicle weight (GVW) must be large enough to safely carry the vehicle, ancillary equipment, passengers, luggage (if allowed), etc. The agency should determine the amount of weight a vehicle will carry consistently, and use this value in determining the type of vehicle to procure. The agency must be careful not to select a vehicle whose anticipated load just equals the maximum GVW.

A vehicle continuously loaded to capacity is potentially unsafe. The weight makes handling the vehicle more difficult and increases the distance necessary to safely stop the vehicle. Additionally, a vehicle continuously loaded to capacity will require more maintenance. It will have more tire, brake, and suspension system wear. If the anticipated load equals the maximum GVW, the agency should consider selecting a larger or more "heavy duty" vehicle.

The outer dimensions of the bus, and the weight on the axles, are important factors if the equipment is to be used both in city service, and on state and country roads. For example, a 102-inch wide city transit bus provides a service quality advantage of providing standees six inches more aisle room, or seated passengers wider seat room than the standard 96-inch wide bus. However, wide buses cannot be operated on many state highways. Similarly, an air conditioned, 53-passenger transit bus offers the advantages of both air-cooled comfort and high passenger capacity. In some cases, the 40-foot frame of the bus and the additional weight of the air-conditioning unit, along with a diesel engine large enough to propel the bus and operate the air conditioner, will place more weight on the rear axle than is allowed by many state axle-loading limits. A smaller or lighter bus may be needed to run on state roads in outlying areas.

3. Vehicle Replacement

Due to matching funds used in vehicle procurement, agencies usually have an obligation to operate each vehicle a minimum number of years (usually 4 to 12 years).

Most agencies have to decide when to replace a vehicle based on its minimum life expectancy and anticipated maintenance costs. The ideal vehicle replacement time is before maintenance cost expenditures are greater than the vehicle's residual value. However, predicting an expected maintenance expense peak is not easy.

Below are some issues to keep in mind when determining vehicle replacement.

- Maintain a tracking system for calculating total operational and repair cost per mile for each vehicle. Problem vehicles can be identified when compared with their previous performance or class norms.

- Based on previous performance and inspections, some repairs can be identified before they result in an immediate need for repair. Repairs in this class include engine overhauls, extensive corrosion damage, major suspension work, etc. Vehicles identified in this category can be immediately retired, if they are old enough, and operation levels maintained. If this is not feasible they can be reserved for limited assignments.

- Is the vehicle obsolete? Will a new vehicle be more effective?

- Cost to operate.

- Salvage value of the older vehicle.

- New vehicle cost.

- Impact on ridership or public image.

Once a decision has been reached to replace or retire a vehicle, efforts should be put forth to maximize the salvage value of the vehicle. Efforts include the following:

- use a well advertised sealed bid process;

- general cleaning, repairing excessive damage, and providing vehicle repair history for examination often improves resale value;

- the agency may find it advantageous to keep the vehicle for spare parts rather than sell it for the high bid.

C. Communication Center Systems

In the small-city transit system, two-way radio equipped buses have become a necessity. The use of communication systems can provide vital supervisory assistance and play an important role in ensuring on-time service and overall dependability of transit operations. With an effective communication system, vehicles can be located quickly, allowing for improved schedule adherance and corrective action when breakdowns occur. Often, information on traffic and safety can be relayed and action taken before a serious delay in service develops. Communication systems also allow bus drivers to communicate with one another to coordinate transfers of passengers between routes. Two-way communication is essential if the transit system offers all or some of its services in the form of a demand-responsive system.

The radio system that is selected should:

- reliably cover the intended service area
- have little or no interference
- be cost effective
- have reliable equipment with repair service available

The establishment of a new radio system costs between $5,000 and $10,000, depending on the number of mobile units required and whether or not a repeater is needed for use. Also, if a repeater is used (which is the usual arrangement), a monthly rental fee ($25 to $100, according to the number of units) will be required.

A general description of a two-way FM radio is given below.

> A two-way radio should consist of a complete two-way FM mobile radio voice communications system installed in a vehicle and ready for operation. The overall design of the system should meet or exceed all standards of the Electronics Industries Association (EIA). In addition, the radio system should meet or exceed all applicable Federal Communications Commission (FCC) requirements.

The two-way radio system shall include:

- A Radio Set Unit
- Control Unit
- Microphone or Handset
- Speaker Unit
- Antenna
- Interconnecting Cable
- Wiring
- Mounting Hardware
- Other items as required for a complete two-way FM mobile radio installation

> The system should be completely solid state and of modular construction to facilitate maintenance. All parts should be new.

The radio system should operate directly off the vehicle battery with no internal power supply. The two-way radio system should operate as specified through a temperature range of minus thirty (-30) degrees Celsius to sixty (60) degrees Celsius. The two-way radio system should be designed to operate on twelve (12) volt d.c. with temporary peak voltages as high as sixteen (16) volts.

All wiring should be properly insulated and, as necessary, shall be held in place with clamps. Except for the microphone or handset cord, there should not be any exposed or loose wiring in the driver or passenger compartment of the vehicle.

A newer option for a communication system is the cellular phone, rather than the standard two-way radio system. This type of system is cost effective only if the correct technology is already in place and accessible to the transit system. Once this technology has advanced within the state, to the point that most "dead" areas of communication have been eliminated, it becomes a viable alternative to the installation of radio systems. This has particular application for the smaller (1-10) vehicle systems.

D. Office Space

The number of office employees in the transportation department will vary from agency to agency. The department can be centralized either at one facility or can be distributed between various facilities and office locations. The rationale behind one arrangement versus another is primarily a function of local policy and agency evaluation. The areas typically included in the transportation department are:

- Superintendent of transportation's office
- Dispatcher's office
- Clerks' and street supervisors' offices
- Training or class room
- Drivers' rooms
- Lunch and recreation areas
- Quiet rooms
- Locker rooms
- Restrooms

The transportation department functions include direct management activities, bus and driver dispatching, and operator support activities. Management offices include the transportation superintendent's office along with space for his assistants, clerks, and street supervisors. These individuals should be located near the bus staging and return areas to assist drivers in receiving their vehicles, making route assignments and, upon their return to the garage, writing reports. The bus dispatcher's office, communications center, and operators' support areas (such as locker rooms, restrooms, recreation area, and lunch area) should all be located within the transportation component.

The majority of the transportation component space is used by the drivers, therefore the amount of space allocated to the transportation component will vary based upon the size of the fleet assigned to the facility. The number of drivers increases in proportion to the size of the fleet with the ratio of drivers to vehicles generally varying between 1:1 and 1:3. The facility rarely needs to accommodate all drivers on site at any one time, making fleet size, rather than the number of drivers, a good measure of space requirements.

The equation $y = 30x + 1,250$ where:

y = area required for transportation component in square feet
x = number of vehicles assigned to the facility

provides a figure for total space necessary for transportation activities. Using the equation yields the following results:

Number of Buses	Total Area (Square feet)
25	2,000
50	2,750
100	4,250
150	5,750
200	7,250
300	10,250

A preferred arrangement for the transportation component is to place the drivers' room in the center with offices, lockers, and other transportation rooms along the perimeter. This will usually aid in locating drivers while on-site.

The following table is an example of the space allotment for different divisions of the transportation component. These figures are recommended for small size transportation systems.

TABLE 5.1 SPACE ALLOTMENT

POSITION	AREA TYPE	RELATIONSHIPS	OPTIMUM NET SQUARE FEET
Executive	Private Office	Adjacent to general administration and dispatch area.	175
Conference	Private Office	Multiple use for 15 person board meetings, employee training, planning, etc.	300
Spare/Intern Office	Private Office	Adjacent to Executive Director's office, dispatch & general administration areas.	150
Bookkeeper Fiscal Officer Receptionist/ Secretary Supervisor/ Dispatcher	Open Area Open Area Open Area Open Area	Adjacent to dispatch and reception area. Maximum flexibility is required among these four work stations.	600
Visitor's Reception	Open Area	Adjacent to front door & open administrative area.	100
Copier/Work Area	Open Area	Adjacent to open work area. Acoustic surroundings.	50

POSITION	AREA TYPE	RELATIONSHIPS	OPTIMUM NET SQUARE FEET
Safe & Acct. Area	Semi-Enclosed	Adjacent to open work areas with easy access to garage/service areas. Safe secure area is for storage of farebox vaults, transfers, etc. Counting area to have acoustic surroundings.	25
Computer Station	Semi-Enclosed or Open	Adjacent to administrative area for shared use, microcomputer with two printers. Acoustic surroundings desirable.	50
Administrative Storage	Enclosed	Securable area adjacent to administration personnel for storage of historical files, supplies, etc.	100
Dispatch/ Employee Lunch Area/Driver Assembly	Enclosed	Immediately adjacent to open administration area; separated by counter, glass partition and doorway. Separate from outside entrance and from employee parking and bus parking/garage.	240

E. Vehicle Specifications

Transit buses are specifically designed and built for the primary purpose of transporting passengers between origins and destinations in both urban and rural environments. Vehicles commonly have strengthened body-on-chassis or integral body construction and include components of industrial application quality (e.g., diesel or heavy duty gasoline engines, air conditioning, air brakes, automatic transmissions, air suspension). Typical non-industrial quality equipment will not withstand the rigors of daily transit use as well as purpose-built components.

There exist no standard, nationwide definitions to distinguish bus size and duty ratings. For the purposes of this guidebook the definitions for different vehicle types and sizes are given.

Three transit bus sub-groups are recommended for rural and small urban applications.

	Length in Ft.	**Pass. Capacity**
- Small Size, Medium Duty Buses	20 - 26	11 - 20
- Medium Size, Medium Duty Buses	25 - 30	18 - 32
- Medium Size, Heavy Duty Buses	30 - 32	28 - 35

These vehicles are commonly built to the design specifications of each purchasing agency; no 'standard' model exists in comparison to autos and service trucks. Bid specifications commonly encompass a specific section for each feature or component, with the exact type of equipment explained. Often, there are no default features. For example, a failure to specify the type and color of passenger seats may lead to the delivery of a vehicle with no seats. Accordingly, the specifications used by the purchasing agency must be carefully selected to ensure component compatibility, utility and cost. Balance must be maintained, however, over-specifying can limit competition and increase acquisition costs. Under-specifying can result in the delivery of an improper vehicle.

Typical configurations in each transit bus category include some standard options and configurations offered by the various manufacturers. In general terms, the larger and more heavy duty the vehicle, the greater the number of options available to the purchaser. Hence, the specifications become more detailed. The use of standard configurations allows the opportunity to specify certain items within the restraints permissible by the overall design. Such items may include choice of air conditioning system (including the option to delete completely), axles, gear ratios, type and color of seats and flooring, provision of wheelchair lifts, choice of destination and route identification signs, number of roof ventilation hatches, tinting of side window glass, and other similar features.

The choice between types and models of transit buses is complex. Agencies considering this class of vehicle should consider the following factors when evaluating their short and long term needs. Future outlook is necessary, since these vehicles are expected to be in service for up to 12 years. Generally, the more heavy duty vehicle is preferable for city operations. This is a conservative

outlook which avoids the problem of using a lighter-duty vehicle when a heavier-duty one is required. Factors affecting the type of bus purchased include, but are not limited to those in the following chart. Existing and anticipated local conditions are typically significant factors in choosing a transit bus class, the most suitable models within that class, and required equipment.

Factors which affect transit bus selection are listed below, where 1 has the greatest, 2 is average, and 3 the lowest impact on selection.

	Small Size, Medium Duty	**Medium Size, Medium Duty**	**Medium Size, Heavy Duty**
Maneuverability	1	2	2
Passenger capacity	3	2	1
Ease of engine maintenance			
Gasoline	1	1	2
Diesel	3	3	2
Overall ease of maintenance	1	1	2
Overall durability	3	2	1
Industrial components	3	2	1
Parts availability	2	2	2
Local contract maintenance	1	2	2
Useful life	3	2	1
Harsh operating environment	2	2	1
Fixed route operation	2	1	1
Non-fixed route operation	1	3	3
Ease of boarding and alighting	2	2	2
Suitability of wheelchair lift	1	1	1
Steep hills/geography	2	2	3
Handles rough city streets	3	3	1
Handling on narrow high-crown roads	1	2	2
Cost: Initial	3	2	1
Cost: Potential lifecycle	1	2	3

The following sections discuss various vehicle types in detail.

1. Small Size, Medium Duty Buses

These vehicles have a maximum seating capacity (including driver and excluding wheelchair positions) of between 11 and 20 passengers. Standing passengers are generally not anticipated.

Transit vehicles in this category are identified by the typical transit bus appearance i.e. squared off front and rear, and constructed on a medium duty truck chassis. Exterior body panels may be made of fiberglass, steel, or aluminum over a structure generally of welded steel members. The floors are usually plywood bolted to a steel structure and covered with ribbed rubber flooring material.

Generally, the power train will consist of a small diesel engine coupled with an

automatic transmission, although some of the smaller versions might be equipped with a large capacity gasoline engine.

In this size vehicle heating is generally provided from engine hot water radiators from which circulating hot air is transferred throughout the coach interior by appropriately located blower motors. Passenger cooling is generally provided by openable passenger windows, air intake vents, and ceiling emergency exits that convert to ventilators. If desired, an air conditioning system may be specified.

a). Standard Specifications

Some of the standard specifications which can be used as a guide in preparing bid packages for this size of bus are:

	Maximum	**Minimum**
Gross vehicle weight	22,000	16,000
Wheelbase	160"	125"
Engine	5.3Liter/Diesel	450CID/Gas
Transmission	Automatic	Automatic
Interior Height	80"	76"
External Length (without bumpers)	26'	20'
1st Step Height	14.5"	13.5"
Brake Type (Air or Hydraulic Power)	Air	Hydraulic Power
Steering Type (Manual or Power)	Power	Power
Fuel Tank Size (Usable Gallons)	80	55

b). Additional Equipment

Additional equipment which may be specified includes the following:

- Air conditioning
- Tinted glass windows
- Farebox
- Side destination signs
- Special striping and logos
- Additional spare wheels and tires
- Wheelchair lift (active or passive)
- Wheelchair securement system
- Jump seats
- Special paint scheme
- Passenger stop signal system
- Driveline brake retarders
- Energy absorbing bumpers
- Special mirrors
- Passenger/pedestrian detection system

- Customized driver or passenger seats

- Mudguards

c). Special Equipment

The following equipment is not recommended for these types of vehicles and should not be specified without special justification:

- Wheelchair ramp
- Rear mounted wheelchair lift
- Luggage racks, inside and outside
- CB radio, commercial band radio, or tape player
- Special wheels or wheel covers
- Electronic message destination signs

2. Medium Size, Medium Duty Transit Buses

These vehicles have a seating capacity (including driver and excluding wheelchair positions) of between 18 and 32 passengers. Standing passengers are generally anticipated and safely accommodated.

The following characteristics are typical of this vehicle: construction usually body-on-medium duty truck chassis (although a few modified medium duty integral structures have been developed); anticipated life in transit applications of 7 to 10 years and 200,000 to 350,000 miles; diesel engines, with some large gasoline engines on smaller versions; air suspension on larger models and springs on smaller versions.

Transit buses in this group are generally defined as vehicles from 25 to 30 feet in length and are specifically designed as transit buses with rear engine propulsion with provision for either single or double door operation. Bodies are usually steel or aluminum sheeting over an integral steel structure and have openable side windows.
The power train will usually have a medium size diesel engine with a heavy duty automatic transmission capable of providing sufficient power for acceleration.

a). Standard Specifications

Some of the standard specifications which can be used as a guide in preparing bid packages for this size of bus are:

	Maximum	**Minimum**
Gross vehicle weight	26,000	18,000
Wheelbase	180"	160"
Engine	425CID/Diesel	5.3 Liter/Diesel
Transmission	Automatic	Automatic
Interior Height	80"	76"
External Length (without bumpers)	30'	26'
1st Step Height	14.5"	13.5"
Brake Type (Air or Hydraulic Power)	Air	Air
Steering Type (Manual or Power)	Power	Power
Fuel Tank Size (Usable Gallons)	90	65

b). Additional Equipment

Additional equipment which may be specified includes the following:

- Customized driver and passenger seats
- Air conditioning
- Side destination and route number signs
- Paint striping and logos
- Special paint scheme
- Additional spare wheels and tires
- Wheelchair lift (active or passive)
- Wheelchair securement system
- Jump seats
- Passenger stop signal system
- Driveline brake retarders
- Energy absorbing bumpers
- Special mirrors
- Passenger/Pedestrian detection system
- Mudguards

c). Special Equipment

The following equipment is not recommended for these buses and should not be specified without special justification:

- Wheelchair ramp
- Luggage racks, inside or outside
- CB radios, commercial band radios, or tape players
- Special wheels or wheel covers
- Electronic message destination signs

3. Medium Size, Heavy Duty Transit Buses

The following characteristics are typical of this vehicle: integral body and chassis constructions, anticipated life in transit applications of 10 to 14 years and 350,000 to 500,000 miles, automatic transmissions, full air suspension, full air brakes, and rear mounted diesel engine.

Medium size-heavy duty buses are those that are scaled down versions of the standard city transit buses normally built in 35 and 40 foot length models. These buses are 30 to 32 feet in length, 96 inches wide, and have a 78 inch inside height clearance in the aisles. Axles, power train, brakes and suspension, structure, seats and other components are of the same heavy duty size as used in the larger versions. For these reasons, this type of bus is normally slightly over-designed and will provide longer and more reliable service than lighter duty designs in the same size range.

a). Standard Specifications

Some of the standard specifications which can be used as a guide in preparing bid packages for this size of bus are:

	Maximum	**Minimum**
Gross vehicle weight	30,000	28,000
Wheelbase	208"	180"
Engine	620CID/Diesel	425 CID/Diesel
Transmission	Automatic	Automatic
Interior Height	80"	76"
External Length (without bumpers)	32'	29'
1st Step Height	14.5"	13.5"
Brake Type (Air or Hydraulic Power)	Air	Air
Steering Type (Manual or Power)	Power	Power
Fuel Tank Size (Usable Gallons)	125	95

b). Additional Equipment

Additional equipment for these buses which may be specified includes the following:

- Air conditioning
- Auxiliary side and route signs
- Colored floor covering
- Spare wheels and tires
- Special striping and logos
- Wheelchair lift (active or passive)
- Wheelchair securement system
- Jump seats
- Special paint scheme
- Passenger stop signal system
- Driveline brake retarders

- Energy absorbing bumpers
- Special mirrors
- Passenger/Pedestrian detection system
- Customized driver or passenger seats
- Mudguards

c). Unauthorized Equipment

The following equipment is not recommended for these buses and should not be specified without special justification:

- Wheelchair ramps
- Luggage carriers
- CB radios, commercial radios and tape players
- Special wheels or wheel covers
- Electronic message destination signs

4. Modified Vehicles

Several types of modified vehicles are described in this section. These vehicles are recommended for small transit systems, including those who transport disabled passengers.

This section describes two basically different types of vehicles: a mini-van with a lowered floor and a wheelchair ramp; and a standard van with extensive modifications such as a raised roof, improved passenger entranceway, more accessible seating and a wheelchair lift. The two types of buses described include light transit buses, which are a small size vehicle built on a commercial van cutaway chassis and customized modified school buses, which are small to medium body-sized vehicle on a light to medium-duty truck chassis.

a). Modified Mini-vans

Mini-vans are offered by several domestic manufacturers who meet UMTA Buy America requirements. Modified Mini-vans are an attempt to improve the utility of the standard mini-van, such as the Dodge Caravan, for transit use. These are standard production mini-vans that have been altered to increase headroom in portions of the van and are more accessible than the original manufacturer's design.

Headroom may be increased by cutting out the floor area between the front and rear wheelwells; lowering the side panels; and installing replacement body frame elements and flooring which are tied into the original factory frame. This modification allows for a floor to roof headroom of 58 inches and 53 1/2 inches of doorway head clearance. The van may be equipped with a wheelchair ramp which may be installed in the side passenger entryway. Also, the van may be equipped with two wheelchair positions and three regular passenger seats, in addition to the driver's seat. An option is the addition of easily removable quick-release seats for use at the wheelchair positions when additional regular seating capacity is needed and space for wheelchair(s) is not required.

Some features you may find on a Modified Mini-van are:

- Automatic transmission
- Power brakes
- Power steering
- Radial tires
- More interior headroom than a standard mini-van
- Wheelchair ramp system including two-way ramp, wheelchair securement and wheelchair occupant restraint system
- Seat belts
- Large outside mirrors
- Choice of manufacturer's standard colors

Any modifications to a standard mini-van may alter the structural integrity of the vehicle. However, with special attention to high quality materials and workmanship in producing the required modifications, vehicle safety can be maintained. Procurement specifications written for the purchase of the modified mini-vans, as well as all other vehicles, should be designed to help ensure that a high level of vehicle safety is maintained, and that quality workmanship and materials go into the production of these vehicles. The van may be reinforced with sturdy cross-members, giving it a lower center of gravity for a smoother ride that maintains full driving capabilities.

As previously stated, a wheelchair ramp may be installed at the vehicle side door. A recommendation for this size vehicle is that of a convenient swing-out type door, which, in the folded position, swings open like a gate to allow ambulatory passengers to enter and exit through the side door without climbing the ramp. With the lowered floor, the ramp entry angle is reduced, making it easier for wheelchair passengers to board. In many situations the wheelchair passenger may be able to board the vehicle without assistance.

The modified mini-van has several advantages compared to larger vehicles such as a converted van, a light transit vehicle (LTV) or a modified school bus. Among these advantages are:

- Higher fuel mileage
- Lower maintenance costs
- Easy to use low angle wheelchair ramp
- Faster loading and unloading of passengers
- Greater maneuverability and easier to handle in traffic
- Smoother, more comfortable ride for travelers with disabilities
- Fits easily into parking spaces and garages

There are, however, several disadvantages in using modified mini-vans for public transit service. Among these disadvantages are:

- A very high vehicle cost-per-passenger
- Limited passenger capacity (maximum of six with removable seat option)
- High cost of labor per-passenger carried
- Relatively untried vehicle in terms of longevity records
- Tight quarters when 2-wheelchairs and 3-ambulatory passengers are carried at the same time
- If removable seat option is chosen, the agency may have problems in storing the seats when they are not being used in the van and employees may have physical problems in trying to put the seats (especially the middle 2-passenger seats) in place and removing them.

The transit agency should seriously consider all advantages and disadvantages before deciding to purchase a modified mini-van. For approximately the same price, a converted van with more than twice the capacity can be purchased. The modified mini-van is recommended for those agencies that have trips requiring a limited passenger capacity and are long in distance, and that believe the economics of operation outweigh the capital purchase disadvantage.

The basic floor plan recommended for the modified mini-van is three regular seats for ambulatory passengers and two wheelchair positions (one behind the driver and one in the front next to the driver). A removable seat option, at additional cost, may be available. A recommended option includes the addition of two seats (one 1-passenger seat and one 2-passenger seat). With this option, the vehicle can be configured to carry the following passenger loads (all plus the driver):

- Three seated passengers and two wheelchair passengers (all removable seats removed),

- Four seated passengers and one wheelchair passenger (center removable 2-passenger seat removed, center wheelchair position used for the wheelchair, and the front passenger removable seat in place),

- Five seated passengers and one wheelchair passenger (center removable 2-passenger seat in place, front removable seat removed, wheelchair in front wheelchair position). This configuration may create loading/unloading problems since the front wheelchair cannot be loaded or unloaded with the center wheelchair position occupied, and

- Six seated passengers (both removable seats in place).

If the removable seat option is chosen, additional problems may surface. Among these problems are that movement to and from the permanent back seat would be virtually impossible with the ramp stowed and the side door closed; the front wheelchair could not be loaded with the middle seat locked in place (seat would have to be locked in place after front wheelchair is tied down); and the aforementioned problem of loading (placing and securing in place) and unloading the removable seats.

b). Converted Vans

Converted vans are an attempt to improve the utility of the standard production van for transit use. As the name implies, these are standard production vans that have been altered to increase headroom and are accessible to wheelchair passengers. The modifications are made by companies other than the original manufacturer.

Headroom may be increased by actually removing the standard roof at or below the roof line and replacing it with a steel or fiberglass raised roof. This modification allows for a minimum floor to roof headroom of 72 inches. The interior of the vehicle may then be redesigned with a front service entrance with extended door height, steps, and any necessary reinforcement of the body frame. Insulation in the floor and side panels may be installed, as well as rubber floor covering. Finally, the van may be equipped with a wheelchair lift and one to three wheelchair positions. A wheelchair securement system should then be provided at each wheelchair position.

Some features you may find on a converted van are:

- Automatic transmission
- Power brakes
- Power steering
- Radial tires, including a full size spare tire, tire jack and lug wrench
- More interior headroom than a modified mini-van
- Passenger service entry door with steps and standing headroom in doorway
- Wheelchair lift system including a lift, wheelchair securement and wheelchair occupant restraint system
- Seat belts
- Large outside mirrors
- Choice of manufacturer's standard colors

Any modification to a standard van may alter the structural integrity of the vehicle. However, with special attention to high quality materials and workmanship in producing these modifications, vehicle safety can be maintained. Procurement specifications written by the agency for the purchase of the converted vans, as well as all other vehicles, should be designed to help ensure that a high level of vehicle safety is maintained, and that quality workmanship and materials go into the production of these vehicles.

Wheelchair lifts may be installed at the vehicle side door or at the vehicle rear door. Rear-mounted lifts are better suited for rural operators where access to the curb side of the vehicle is impractical due to roadside ditches, tall grass, heavy snow or narrow driveways. Rear-mounted lifts are also more accessible in areas where one-way streets restrict boarding from the side of the vehicle.

Side-mounted lifts are better suited to most urban applications where curb side passenger pickup is common. Also, side-mounted lifts eliminate some of the potential hazard of passenger injury in the event of a rear-end collision. A rear-end collision can render a rear-mounted lift inoperative, leaving passengers stranded on-board.

Regardless of where the lift is mounted, it should be remembered that maneuverability of a wheelchair inside a vehicle is extremely restricted. As a rule, the first wheelchair on a vehicle will be the last one off. This should be taken into account when planning the passenger pickup and delivery schedule.

On these vehicles, a jump seat option may be selected. The jump seat option will provide flip-down seats at the wheelchair positions (WCP's) for use when the WCP's are not occupied by a wheelchair. These seats may be less opulent and slightly smaller than standard seats. It is the intent that these seats remain in a "folded-up" position until needed. The use of the jump seats will increase the seating capacity of the vehicle when the WCP's are not in use.

In addition, certain converted vans may be equipped with fold-up seats, depending upon the floor plan chosen. Fold-up seats should match the regular seats in comfort and size and are provided to facilitate the movement of a wheelchair into position. It is the intent that these seats be "folded-up" when needed to maneuver the wheelchair, and then returned to their normal "folded-down" position.

c). Light Transit Buses

The light transit bus is a small (17 passenger) size vehicle built on a commercial van cutaway chassis. This type of bus is normally suited for social service agency transportation. The vehicle body is manufactured for school bus application, not "converted" to a bus from a sports van, passenger van, delivery vehicle or recreational vehicle.

This small bus has a spacious interior. The standard minimum headroom (inside body height) is 73" and the standard minimum interior width is 88". Adult-sized seating should be provided with adequate room for maneuvering of wheelchairs and ambulatory passengers at the same time.

The bus may be equipped with horizontal sliding type windows and a "snub-nosed" front end creating a pleasing exterior appearance. This vehicle type may not have a rear emergency exit door. Instead, it may have one to three large windows in the rear, one of which is of the emergency exit-type. All federal safety exit requirements must be satisfied by requiring an adequate number of side windows to be of the emergency exit-type.

Some standard features of the light transit bus include:

- Automatic transmission
- Power brakes
- Power steering
- Low first step height
- Jack and lug wrench
- Spare wheel and tire (not mounted on vehicle)
- Undercoating
- Emergency rear exit window
- Rubber floor covering
- Transit-type passenger windows
- Seat belts
- Stanchions and grab rails
- Wheelchair lift, including wheelchair locks and wheelchair occupant restraint systems
- Choice of manufacturer's standard colors
- Left and right hand outside mirrors with vision expansion system
- Radial tires

The specifications for this bus should be written to obtain the smallest bus of various school bus manufacturer's lines. Examples of these buses are:

- The Wayne "Chaperone"
- The Bluebird "Microbird"
- The Thomas "Minotour"
- The Ward "Vanguard"
- The Carpenter "Clipper"

The standard seats provided may be of the type normally provided in school buses or may be of a type with a more pleasing appearance than school bus seats. Custom seats are available as an extra cost option. An automatic transmission should be provided, making driving of the bus easier. Also, power steering and power brakes are standard features making handling of the bus easy, regardless of the physical strength of the driver. The "ride" is about the same as a large passenger van; however, the padding and construction of the seats will directly effect the softness of the "ride".

The bus may be equipped with a wheelchair lift and up to three wheelchair positions. A wheelchair securement system should be provided at each wheelchair position. The lift should be installed on the right (curb) side of the vehicle, forward of the rear wheels. A rear-mounted lift may be requested.

The jump seat is an option which may be selected. The jump seat option will provide flip-down seats at the wheelchair positions (WCP's) for use when the WCP's are not occupied by a wheelchair. The use of the jump seats will increase the seating capacity of the vehicle when the WCP's are not in use.

In addition, certain buses may be equipped with fold-up passenger seats. These seats will be identical to the regular passenger seats in size, color, material used, dimensions, etc.; however, they will also have the advantage of being folded-up in order to provide additional room for the maneuvering of a wheelchair into the wheelchair position. It is intended that jump seats remain flipped-up until needed, where as fold-up seats remain down at all times except when maneuvering a wheelchair into position.

d). Customized Modified School Bus

The customized modified school bus is generally a small (17 passenger) to medium (37 passenger) body-sized vehicle on a light to medium-duty truck chassis. This type of bus is suited for social service agency transportation. The vehicle is manufactured for school bus application, not "converted" to a bus from a sports van, delivery vehicle or recreational vehicle. The basic school bus can then be modified as described below.

This bus should be equipped with adult-sized seating and provide adequate room for maneuvering of wheelchairs and ambulatory passengers at the same time. The headroom (inside body height) should be a minimum of 74.5", and the minimum interior width of the vehicles 88".

The side passenger windows should be of the horizontal sliding-type or T-type, giving the vehicle a more pleasing appearance when viewed from the outside. The emergency rear door exit may be eliminated, providing a large rear emergency window instead. All federal safety exit requirements can be satisfied by requiring an adequate number of side windows to be of the emergency exit-type.

Some standard features of the customized modified school bus include:

- Automatic transmission
- Power brakes
- Power steering
- Low first step height
- Jack and lug wrench
- Spare wheel and tire (not mounted on vehicle)
- Undercoating
- Emergency rear exit window
- Rubber floor covering
- Transit-type passenger windows
- Seat belts
- Stanchions and grab rails
- Wheelchair lifts, including wheelchair locks and wheelchair occupant restraint systems
- Choice of manufacturer's colors

Inherently, buses have a "hard ride". The ride may be somewhat softened by radial tires and the inclusion of custom seats.

The automatic transmission, which is standard on this vehicle, makes the bus easy to drive. Due to the bulky size of the vehicle, however, maneuverability may be more difficult than LTV's or converted vans.

The bus may be equipped with a wheelchair lift and up to eight wheelchair positions. A wheelchair securement system should be provided at each wheelchair position.

A jump seat option may be selected. The jump seat option will provide flip-down seats at the wheelchair positions (WCP's) for use when the WCP's are not occupied by a wheelchair. The use of the jump seats will increase the seating capacity of the vehicle when the WCP's are not in use.

A reprint of three pertinent articles from the March 1988 issue of Community Transportation Reporter entitled, "Taking the Misery Out of Writing Specs", "The Vehicle Marketplace: Profile of Selected Vehicles Currently Available", and "Inspection on Delivery: A Must for Every Operator", have been included in the Appendix to this chapter.

F. Wheelchair Accommodations

For passengers who can not use steps to board the transit vehicle, there are two basic boarding devices - wheelchair lifts and ramps. A vehicle equipped with such a device is referred to as "accessible". A public agency purchasing an accessible vehicle needs to consider the advantages and disadvantages of lifts and ramps and the impact they have on purchase, operation and maintenance costs. The device most commonly installed on accessible vehicles is a wheelchair lift. The two major types of lifts are the electromechanical lifts which operate using belts, chains or cables; and electrohydraulic lifts, which use cylinders of fluid.

1. Lifts

A lift allows access for a wheelchair user by first lowering a platform to ground level, allowing the user to wheel onto the platform, and then raising the platform to the same level as the vehicle floor so that the user can wheel into the vehicle. Lifts may be "active" or "passive". Active lifts are also known as platform lifts or lift gates. This type of lift usually requires a separate entrance from the regular passenger door because the stowed lift may interfere with the use of the entrance. In contrast, passive lifts, also called step lifts, can be stowed without interfering with regular vehicle entrances. When stowed, the passive lift provides steps for passengers. When it is in operation, it forms a platform that lifts a wheelchair from the ground to the level of the vehicle floor. Passive lifts are a relatively new and very expensive feature. Their high cost tends to discourage system operators from purchasing them.

The location of the lift is another important factor to consider. Lifts may be mounted on either side or rear doors of the vehicle, but are generally installed in the vehicle's side and stored in its interior. Depending on the operating environment, including both climate and service route, alternative lift installations are

advisable. In urban areas, where the probability of a rear-end collision is greater, rear entrance lifts may be a problem. For rural service routes, where roadside ditches and tall grass are commonly found on the side of the street, rear entrance lift location is more convenient.

Some agencies permit semi-ambulatory passengers to use a lift while they are standing. This is a very dangerous situation and should never be permitted. The proper procedure is that a boarding chair (a spare wheelchair stored on a vehicle) should be used, rather than permit anyone to stand on a moving lift.

2. Ramps

Wheelchair ramps are a less expensive option as a boarding device, but there are fewer available than there are lifts. Ramps are often designed and made by individual vehicle suppliers to fit into their own vehicles. Typically, ramps cost less than lifts, are installed more easily, operate more simply and require less maintenance. As with wheelchair lifts, ramps may be located in alternative positions in the vehicle.

Generally, ramps are operated manually with the driver folding and unfolding the ramp and assisting the wheelchair passengers up the ramp and into the vehicle. Usually the ramp is angled at a steep incline, requiring the driver to have the strength to push the wheelchair up the ramp. This may restrict potential drivers lacking the required strength and may cause back injuries. Passengers using walkers, canes or crutches may have difficulty walking on an incline. If these passengers cannot board the vehicle through another entrance, it may be necessary to use a boarding chair. Another disadvantage of ramps is that they can become slippery in wet weather. This may happen with lifts as well, but is more of a problem with ramps because of the assistance required of the driver, who may slip on the ramp. Note that lowered-floor vehicles (versus raised roof) are more compatible with ramps since the ramp angle is greatly reduced.

Making the choice between a wheelchair lift and a ramp is an important consideration for a transit agency. Lifts can be more convenient than ramps and, for routes which are frequently used by wheelchair passengers, can be a worthwhile investment. If a boarding device is used only on occasion, it is less expensive and easier to purchase a ramp-equipped vehicle.

3. Wheelchair Securement

After boarding the vehicle, wheelchair passengers must be secured to ensure safe transport. Wheelchair securements, also called restraints, are located and attached inside the vehicle to hold the wheelchair and its occupant in place while the vehicle is moving.

There are two main types of wheelchair securement devices - tie downs and wheel locks. Tie downs, or belt channel/track systems, include a belt which attaches to the wheelchair and connects to the floor or wall of the vehicle by means of track

systems or mounts. Wheel locks, or wheelchair lock systems, are brackets bolted into the floor of the vehicle. The wheelchair is backed into the brackets, which clasps onto the rear wheels, locking them in place.

Most securement devices are operated manually. The design and location of the securement device, and the disabilities and dexterity of the wheelchair user, affect the amount of driver assistance necessary to engage a securement device. Tie down devices appear to be the safest because they attach to the frame, rather than the wheels of the wheelchair. Since the frame is sturdier than the wheels, the wheelchair would be less likely to become disjointed in the event of a collision. While tie downs may offer greater securement, wheel lock systems provide convenience, as they are relatively quick and easy to use, and are generally less expensive.

One problem identified by operators is that not all wheelchairs can be secured to all wheelchair restraints. The type and size of wheelchairs are continually growing, as the market is becoming more specialized. Although wheelchair securement devices are adjustable, differences in width of the tires or in the types of wheels may make attaching the restraints difficult. Additionally, three and four-wheeled carts (such as the Amigo and Lark) are becoming increasingly popular, making it more difficult to supply "universal" securement devices. Some agencies require passengers to transfer from their cart to a seat during transport.

G. References

The following is a list of references from which the information provided in this chapter was obtained.

Rolling Stock and Spare Vehicles:

U.S. Department of Transportation, Handbook for Management Performance Audits, July 1988.

U.S. Department of Transportation, Mass Transit Management: A Handbook for Small Cities, Feb. 1988.

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Ohio Department of Transportation, Division of Public Transportation, Bureau of Transit Technology, Supplemental Vehicle Catalog, Nov. 1989.

U.S. Department of Transportation, Handbook for Management Performance Audits, July 1988.

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COKE HARPHAM INCORPORATED, Transit Garage Feasibility Study, March 1986.

SG Associates, Inc., Bus Maintenance Facility Planning Study, proj. #IT-09-9018, Oct. 1983.

U.S. Department of Transportation, Office of Transit Management, Bus Maintenance Facilities: A Transit Management Handbook, Nov. 1975.

Vehicle Specifications:

Ohio Department of Transportation, Division of Public Transportation, Bureau of Transit Technology, Supplemental Vehicle Catalog, Nov. 1989.

Ohio Department of Transportation, Division of Public Transportation, Bureau of Transit Technology, Vehicle Catalog, Jan. 1990.

Steinert, Peter J., Small Transit Vehicle Selection, Specifications and

Procurement Guidelines, California Department of Transportation, Sept. 1984.

U.S. Department of Transportation, Office of the Secretary of Transportation, Specification Guide for Small Transit Vehicles, Prepared for Indiana Department of Transportation, Division of Public Transportation, Feb. 1984.

Wheelchair Accommodations:

Handbook for Purchasing a Small Transit Vehicle, prepared for Pennsylvania Department of Transportation by the U.S. Department of Transportation, October 1988.

Meacham, D.G., et al., Specifications for Elderly and Handicapped Passenger Transportation Vehicles, Ohio Department of Transportation, Division of Public Transportation, Jan. 1988.

APPENDIX CHAPTER VI

> "Taking The Misery Out of Writing Specs"

> "The Vehicle Marketplace: Profile of Selected Vehicles Currently Available"

> "Inspection on Delivery: A Must for Every Operator"

Taking the Misery Out of Writing Specs

Although many transit operators turn pale at the prospect of writing vehicle specifications, a little planning and a few guidelines can help alleviate some of the problems.

By Connie Garber

For community transportation providers, it is difficult, if not impossible, to obtain the proper vehicles without first having their precise specifications. While writing such thorough requirements may appear as an enormous task (even an ordeal), it is really only a matter of choosing a vehicle and clearly defining its characteristics.

Before actually writing vehicle specifications, you must consider several important factors. First, what size vehicle do you need? Calculate the average *rider use* for the vehicle. You are legally allowed to carry a number of standees equal to one-third of a vehicle's seating capacity (if the vehicle has standing room). You can also operate at one-half capacity. However, the most cost-efficient service is when seats are filled a majority of the time and the number of standees is minimal.

In determining size you must also consider the needs of persons in wheelchairs. Although many mobility-impaired riders may require only minor special adaptations to the vehicle, wheelchair passengers require lifts and tie-downs.

Decide if you want the lift in the front or the rear of the vehicle and if tie-downs are to be *aisle-facing* or *forward-facing*. Front wheelchair lifts may hinder access to seats, thereby requiring wider aisle widths in some vehicles. Forward-facing tie-downs require more space, thus reducing the number of seats.

Connie Garber is transportation director of York County Community Action Corp. in Sanford, Maine.

RTAP Hotline: (800) 527-8279

Questions to Consider

What are your service characteristics? Is your operation located in areas with narrow, winding roads? hilly terrain? an extremely cold or hot climate? Are places available to obtain needed repairs and parts for specialized vehicles?

How much money is budgeted? Vehicles are expensive, and if you have limited match funds, the types of vehicles may also be limited. Contact your local distributors for an idea of base price or your state transportation department for recent bid prices. But be careful—the low-bid vehicle that you can afford may be expensive to maintain.

What is your role in the purchasing process? Do you have to abide by specifications determined by the state purchasing office or the state transportation department? Are you subject to "Buy America" requirements and/or handicapped nondiscrimination requirements? What is required by state and federal laws? Whether you write your own requirements or follow state specifications, your input in the process is vital.

Writing Your Specs

After answering these questions and choosing a vehicle, you can begin writing your specifications. If you are confused, full sets of specifications for all types of vehicles are available. For information, call the RTAP hotline: (800)527-8279. In addition, seek the advice of operators who have experience with specifications.

It is always a good idea to begin the technical specifications with a statement about the purpose of the vehicle. For example, will it be used to transport elderly and handicapped passengers and/or the general public? Will trip destinations include workplaces, medical facilities, and/or retail stores? This information tells bidders the *type of use*—stop-and-go or in-town service—so they can choose an appropriate vehicle.

Indeed, specifications will vary according to the type of vehicle (van, modified van, body on chassis, or bus). And while there is no single, all-encompassing rule for writing specifications, the following information may be helpful.

Some Guidelines

In writing specifications, the York County Community Action Corp. (Sanford, ME) analyzes six general areas: chassis, exterior body, interior body, standard equipment, special equipment, and miscellaneous (paint, warranties, and manuals, for example).

Regarding the chassis, York County considers the following:

- *Dimensions*—wheelbase; overall length; allowable overhang behind rear wheels; exterior width
- *Engine*—number of cylinders; gas or diesel option; cubic-inch displacement; compartment insulation
- *Cooling System*—heavy-duty radiator; coolant recovery system; coolant providing protection to 30 degrees below zero (Fahrenheit)
- *Transmission*—automatic or manual; heavy duty; three speed; auxiliary transmission coolant system
- *Steering*—chassis-supplied power steering
- *Gross Vehicle Weight (GVW) rating*—minimum number of pounds
- *Axles*—minimum load capacity, front or rear
- *Shock Absorbers*—front or rear double-acting compatible with manufacturer's rated axle capacity
- *Springs/Suspension*—minimum front rating of 35 percent of GVW; minimum rear rating of 65 percent of GVW
- *Tires*—size and ply rating meeting

minimum GVW requirements of load range D; steel-belted radials; spare tire of same type on matching rim; all tires spin balanced

- *Electrical System*—12-volt/100-amp alternator (minimum); voltage regulator compatible with alternator; 12-volt battery with 475 CCA at zero degrees Fahrenheit (total capacity sufficient to power all electrical equipment); instrumentation should include speedometer, odometer, ammeter, oil pressure, water temperature, fuel gauge; wiring conforming to current SAE standards and color- and number-coded with diagram; additional wiring of equal quality with separate fuse
- *Filters*—air and oil; heavy duty; replaceable
- *Fuel System*—18- to 30-gallon capacity
- *Brakes*—front and rear; disc and drum; heaviest duty available; emergency parking brake
- *Exhaust*—tailpipe exiting in rear of vehicle
- *Bumpers/Tow Hooks*—manufacturer's standard or energy absorbing bumpers; tow hooks front or rear mounted to chassis frame
- *Frame*—should correspond to standard practice and handle severe use

York County follows similar guidelines to analyze requirements for the body, equipment, and miscellaneous categories.

After completing the technical specifications, do not forget to obtain a *standard request for bid provisions*—this allows you to accept or reject any or all bids.

Other important documents that you should obtain include the *specifications compliance checklist,* which enables the bidder to enter the dimensions, sizes, and other measurements next to each specified item.

Another document—the *bid sheet*—includes the price listings for the base vehicle plus the options. On this document, the bidder writes his name, address, phone number, and date of expected delivery time.

Remember that to get the type of vehicle you desire, you need clear and detailed specifications. For help, use information currently available, talk to state and federal resource people, ask manufacturers for their specifications, and call the RTAP hotline at (800)527-8279. Finally, make plans to attend the upcoming Community Transportation EXPO '88 to see the latest vehicles on the market. ❧

Resource Materials

Small Transit Vehicles How to Buy, Operate and Maintain Them (1985)
Transportation Research Board
National Research Council
2101 Constitution Avenue, N.W.
Washington, DC 20418
Cost: $7.60

Section 16(b)2 Specifications for Accessible Small and Large Buses (1987)
Minnesota Department of Transportation
815 Transportation Building
John Ireland Blvd.
St. Paul, MN 55155

Small Bus, Medium Bus, Large Bus and Mini Van Conversion Specifications (1985)
Michigan Department of Transportation
Gary Teachworth
425 W. Ottawa Street
P.O. Box 30050
Lansing, MI 48909
(517)335-2530

Section 16(b)2 Specifications Van, Modified Van, Large, Medium and Small Buses
Indiana Department of Transportation
Betsy Kachmar
143 W. Market Street, Suite 300
Indianapolis, IN 46204
(317)232-1483

Specification Guide for Small Transit Vehicles (1984)
DOT-1-84-26
Norm Paulus
Technology Sharing
U.S. Department of Transportation, I-30
Washington, DC 20590
(202)366-4208

1987 Section 16(b)2 Vehicle Catalog and Specifications
Ohio Department of Transportation
Don Meacham
Division of Public Transportation
25 S. Front Street
Columbus, OH 43216-0899
(614)466-8957

UMTA Small Transit Vehicle Procurement Workshop Proceedings (1984)
DOT-TSC-UMTA-84-30
Office of Bus and Paratransit Systems
UMTA, URT-20
Washington, DC 20590

Maintenance Manager's Manual (1987)
Ohio Department of Transportation
Don Meacham
Division of Public Transportation
25 S. Front Street
Columbus, OH 43216-0899
(614)466-8957

Guideline Specifications for Passive Wheelchair Lifts (1986)
UMTA-IT06-0322-87-2
Office of Bus and Paratransit Systems
UMTA, URT-20
Washington, DC 20590

National Workshop on Bus-Wheelchair Accessibility (1986)
DOT-1-86-11
Office of Bus and Paratransit Systems
UMTA, URT-20
Washington, DC 20590

Guideline Specifications for Active Wheelchair Lifts (1986)
UMTA-IT-06-0322-82-2
Office of Bus and Paratransit Systems
UMTA, URT-20
Washington, DC 20590

Guideline Specifications for Wheelchair Securement Devices (1986)
UMTA-IT06-0322-82-4
Office of Bus and Paratransit Systems
UMTA, URT-20
Washington, DC 20590

Guideline Specifications for Wheelchair Ramps (1986)
UMTA-IT06-0322-82-3
Office of Bus and Paratransit Systems
UMTA, URT-20
Washington, DC 20590

THE VEHICLE MARKETPLACE: Profile o

	Company	Model	Seating Capacity	Exterior Height	Standard Equipment	Wheel-chair Lift	Reader Service No.
	Supreme Corp.	StarTrans Senator	29 pass.	115 inches	351 or 460 CID gas or 6.2 or 7.3 CLD diesel engine; power steering; hydraulic brakes; Ford or Chevrolet automatic transmission	Yes	108
	Allen-Ashley Inc.	Ford and Dodge Vans	16 pass.	104 inches	E350 or E460 engine; power steering; front disc and rear drum brakes; three-speed automatic transmission	Yes; Braun or Collins semiautomatic or fully automatic	109
	American Bus Corp.	Ambassador medium-duty bus	17 to 28 pass.	115 inches	E460 gas engine; power brakes; automatic transmission	Yes	110
	John Deere	CV110 and CV1300 chassis models	N/A	N/A	Cummins 6BT diesel or Ford 7.0-liter gas engine; Allison AT series transmission; Saginaw 710 gear steering; Hydro-Max booster, four-wheel disc, 14.75-inch rotor-dual piston brakes	N/A	111
	Ahnafield Corp.	Dodge Caravans or Plymouth Voyagers	6 pass.	67.4 inches	2.5-liter or 3.0-liter V6 gas engine; rack and pinion power steering; front disc, rear drum brakes; automatic transmission	Yes	112
	Thomas Built Buses	SCAT	22 to 31 pass.	114 inches	Navistar 7.3-liter diesel engine; hydraulic power steering; full air front and rear brakes; Allison AT 545 transmission	Yes	113
	Collins Bus Corp.	Civitran; Vista; Citivan	10 to 18 pass.	95 or 108 inches	5.8-liter gas or 7.3-liter diesel engine; power-assisted steering; power-assisted, front disc, rear drum brakes; three-speed automatic transmission	Yes; semiautomatic or fully automatic	114
	Coons Manufacturing Inc.	GT and VIP	17 to 29 pass.	105 to 112 inches	460 gas or 7.3-liter diesel engine; power tilt steering; dual hydraulic assisted, self-adjusting power brakes	Yes	115
	Dutcher Motors Inc.	TransiTaxi	8 adults or 3 forward-facing w'chairs	127 inches	3.8-liter V6 Buick fuel-injected gas engine; hydraulic power-assisted steering; 12-inch ventilated rotor, disc brakes; GM four-speed automatic transmission	Yes	116

Selected Vehicles Currently Available

	Company	Model	Seating Capacity	Exterior Height	Standard Equipment	Wheel-chair Lift	Reader Service No.
	Turtle Top Division	Terra Transit II	6 to 29 pass.	113 inches	351 CID gas or 7.3-liter diesel engine; power steering; power brakes; automatic transmission	Yes	117
	Goshen Coach Corp.	Paratransit vans	Up to 25 pass.	112 inches	7.3-liter or 7.5-liter engine; power steering; front disc and rear drum brakes; three-speed automatic transmission	Yes	118
	El Dorado Motor Corp.	Paratransit vans	10 to 35 pass.	109 to 132 inches	7.3-liter or 8.2-liter diesel engine; power-assisted steering; hydroboost brakes; C6 or AT 545 transmission	Yes	119
	Wheeled Coach Industries Inc.	2100 DW paratransit vehicle	25 ambul. pass.: 17 ambul. & 2 w'chair pass.	112 inches	460 Ford gas or Cummins 6BTA engine; power steering; front disc, rear drum brakes; Ford C6 or Allison AT 545 transmission	Yes	120
	Wayne Corp.	Midtowner mid-size buses	13 to 29 pass.	112 inches	460 V8 gas or 7.3-liter diesel engine; power steering; power brakes; three-speed automatic transmission	Yes	121
	Bus Industries of America Inc.	Orion II	18 to 24 pass.	110 inches	Detroit diesel 8.2-liter engine; power steering; Allison AT 545 automatic transmission	No; Wheelchair ramps	122
	Wide One Corp.	WO-2	15 pass. & 1 w'chair pass.	105 inches	Gas engine; power steering; power front disc, rear drum brakes; A727 Chrysler transmission	Yes	123
	National Coach Corp.	E58 P/T	17 pass.	108 inches	Diesel or gas engine; power steering; dual hydraulic, front disc, rear drum brakes; three-speed automatic transmission	Yes	124
	International Transit Systems Ltd.	Tourstar T2000 and T2400	24 pass.	112 inches	6.2-liter diesel engine; integral power steering; hydraulic front disc, rear drum brakes; M400 MXI transmission	Yes; Braun or Mobile Tech	125

Inspection on Delivery: A Must for Every Operator

When that new vehicle arrives from the manufacturer, if you don't check it out, you could be in big trouble. Here are some basic inspection guidelines that won't take too much time to follow.

By Judy Byman

If a transportation manager accepts a vehicle upon delivery without properly checking it out, the result could be disaster. All too often, many operators discover that the vehicle they accepted is not what they ordered or that it cannot be kept in service. Yet there are several basic inspection procedures that can be followed to minimize such problems even under the most pressure-packed conditions.

To lessen troubles at inspection time, make sure that your written specifications for the vehicle are clear and detailed. Specific sizes of components must be stipulated. In addition, list those items that do not comply with the specifications and those that are acceptable. Also in your bid specifications, identify the expected warranty coverage and the "responsible bidder" whom you should contact in case of warranty disputes. These points are important because you have no leverage with a company if your specifications are not thorough.

Upon delivery of the vehicle, hold back 20 percent of total payment for the vehicle until it has been completely inspected, corrected, and accepted.

If your system employs a mechanic, vehicle inspection is relatively uncomplicated. Your mechanic will have the best understanding of your specifications as well as your system's needs and priorities.

For systems that receive vehicles from state-generated specifications and state bids, the situation can be confusing. In Michigan, for example, the specifications are quite detailed and the state inspects and determines whether a vehicle meets the standards. Check with your state transportation department on procedures if your vehicle is procured in this manner.

For systems that do not employ mechanics or have state inspection requirements, vehicle verification is often a perplexing and cumbersome task. However, several options are available; these options require written, clearly defined specifications.

One option is having your vehicle inspected by a mechanic of a reputable truck or heavy-equipment dealer. One of the best inspectors is a mechanic of a bus competitor. He cannot lie because of legal consequences, and he will be critical and examine the vehicle according to the required specifications. Another option is hiring a certified mechanic referred by someone who can verify his work and expertise.

Inspections should include checking for possible obsolete parts, axels, suspension, brake size, and exhaust systems. The size and appropriateness of the components will be crucial to vehicle longevity. Another area of concern is electrical components. For example, make sure that the alternator has sufficient capacity to carry the load and proper insulation. Short of dismantling the vehicle, some body parts and wiring cannot be checked. However, by removing random dome lights, structural items (such as steel ribs and insulation) can be verified with minimal cost and time.

One of the best ways to check your vehicle is to send a mechanic to the factory while the vehicle is being built. The mechanic can observe the work and make changes, if necessary, during that time. You will incur traveling and wage expenses but the vehicle you receive is more likely to be what you ordered.

Whichever method you choose, an inspection should also involve checking each item for compliance to specifications. For items that do not comply, notify the vendor in writing. Such items must be corrected at no cost to the system before the final payment for the vehicle.

Often the most expensive and long-term errors made by managers are in vehicle specifications and acceptance. However, proper vehicle specifications and a thorough inspection can save tremendous amounts of money, frustration, and breakdowns. In addition, your system can provide high quality, safe, and reliable service to your passengers. ❧

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RTAP Hotline: (800) 527-8279

Chapter VII. FUNDING/FINANCE

A. Introduction

In this era of declining funds for public transit, increasing costs, and additional demands on most community transportation providers, it is essential that maximum benefit be extracted from every available dollar. It follows that agencies need to know how to access available funding, and how to manage revenues and cost.

This chapter has been developed to provide information that will hopefully assist in understanding this most important subject area. It begins with an overview of available funding sources including purpose, eligibility criteria, amounts available, local match required and contact person. Included is a generic list of common local funding sources that may or may not be available in your area.

Next, information relative to budgeting is presented. The need for accurate historical information and its use in cost estimation is covered. Also covered is the concept of cost allocation -- a particularly timely issue at the federal level.

Accounting information is next presented, with emphasis placed on manual versus computerized techniques.

This chapter concludes with a discussion relative to fare and price management, alternative fare and reimbursement structures, and other associated information.

It goes without saying that he or she who best knows how to secure and manage funds will succeed. It follows that the information contained in this chapter is important.

B. Available Funding Sources

This section provides information relative to funding for public transit (federal/state). It also includes a listing of common local funding sources that may or may not be available in your area.

1. Federal Funds For Mass Transportation

Much of the information included in this section on federal funding sources is taken from the January 1990 edition of the Community Transportation Reporter. Community Transportation Reporter is a monthly technical assistance publication of the Community Transportation Association of America, a national association which focuses on improving transportation in rural and small urban areas.

a). Section 3: Discretionary Capital Grants by Loans

By statute, 80 percent of this program is earmarked for financing rail modernization and fixed guideway activities. Another 10 percent is available for the replacement, rehabilitation, and purchase of buses and related equipment and the construction of

bus-related facilities. Many of the remaining Section 3 funds have been incorporated into various special UMTA programs, such as the Alternative Fuels Initiative (capital assistance for the acquisition of vehicles using alternative fuels), Entrepreneurial Services Challenge Grants (seed money for the entry of private sector operators into public transit activities) and the Suburban Mobility Initiative (financing of programs to improve suburban public transportation). All Section 3 grants carry a 25 percent non-federal match requirement, but UMTA gives preference to proposals that include a higher local match. Application for Section 3 grants (including UMTA's special initiatives) is made through regional UMTA offices.
National funding for Fiscal Year 1990: $982.1 million.

b). Section 6: Research, Development and Demonstrations

This discretionary program is used to finance studies and demonstrations that are intended to improve mass transportation services. Application is made through UMTA headquarters.
National funding for Fiscal Year 1990: $7.8 million.

c). Section 8: Planning and Technical Studies

The Section 8 Planning and Technical Studies Program provides financial assistance to state and local governments to conduct planning activities for mass transportation. These funds are awarded to state transportation departments and local metropolitan planning organizations on a discretionary basis, with a 20 percent non-federal match requirement. Planning activities for rural and small urban areas are carried out by state transportation departments, which generally receive approximately 10 percent of Section 8 funds.
National funding for Fiscal Year 1990: $44.9 million.

d). Section 9: Formula Grant Program for Urban Areas

Overview:

The Section 9 Formula Grant Program makes federal resources available to urban areas for planning, capital and operating assistance purposes. Urban areas of population 200,000 or greater receive formula funding directly from UMTA under Section 9(a)(2). For urban areas of under 200,000 population, the governor or the governor's designee is the recipient of Section 9(1)(1) funds. These formula funds are apportioned on the basis of population and population density for urban areas under 200,000.

Assistance:

The federal match for planning and/or capital assistance is 80 percent. There are two exceptions to this 80 percent match for capital projects: bicycle facilities are funded at a 90 percent match and elderly and handicapped accessibility projects that go beyond federal legal requirements are funded at a 95 percent match.

The federal match for operating assistance will not exceed 50 percent. Each urban area has an annually adjusted ceiling on the amount of federal operating assistance it can receive.

Local match must be provided in cash from non-federal funds or from non-farebox revenues from the operation of public mass transit systems, such as advertising, concessions and most contract revenues.

National funding for Fiscal Year 1990: $143.5 million for urban areas (50,000-200,000 in population only). The amount apportioned to the Governor of New Mexico in Fiscal Year 1990 under the Section 9(a)(1) program for small urban areas is $564,300.

e). Section 10: Training Programs

Under this discretionary program, UMTA funds training activities at the state, local government, and single agency level. Historically, Section 10 funds have been used to finance training programs within individual larger transit systems, but they may be used for statewide training activities. Application is made through UMTA headquarters in Washington, D.C.
National funding for Fiscal Year 1990: $398,800.

f). Section 16(b)(2): Capital Assistance Program for Nonprofit Agencies Transporting the Elderly and Handicapped

Overview:

Section 16(b)(2) of the Urban Mass Transportation Act of 1964, as amended, provides capital funds to private nonprofit organizations for meeting the special transportation needs of the elderly and handicapped in urban, small urban and rural areas. Funds for this purpose are allocated to states, commonwealths, and territories, on the basis of their elderly and handicapped populations. The funds are administered by a designated state agency, usually the same agency that administers the Section 18 program.

Assistance:

Private, nonprofit organizations are eligible for Section 16(b)(2) funds for capital expenses. Section 16(b)(2) funds are largely used for the purchase or lease of vehicles, but lifts, radios or other capital equipment necessary for the transportation of the elderly and handicapped by private nonprofit agencies may also be eligible for Section (16(b)(2) funding.

The federal share of eligible capital costs may not exceed 80 percent, and the local share must be at least 20 percent.

Among the many restrictions on the use of the vehicles funded under this program are prohibitions on leasing vehicles purchased with Section 16(b)(2) funds to public

bodies and stipulations that use of 16(b)(2)-funded vehicles for other purposes (e.g., transportation of the general public or "Meals on Wheels" programs) do not interfere with transportation of the elderly and handicapped.

National funding for Fiscal Year 1990: $35.0 million. The State Section 16(b)(2) allocation for New Mexico in FY 1990 is $253,200.

g). Section 18: Formula Grant Program for Non-Urban Areas

Overview:

Section 18 of the Urban Mass Transportation Act of 1964, as amended, provides a formula grant transportation program for non-urban areas of less that 50,000 population. The purpose of the Section 18 program, which is administered by the Urban Mass Transportation Administration through state agencies (usually transportation and highway departments), is to assist transportation agencies serving the general public. Specialized transportation systems can also receive assistance if they open their doors to the general public. Section 18 funds are currently distributed by the states to nearly 1,200 local systems, almost 40 percent of which are private nonprofit agencies.

Eligibility:

Section 18 funds are available for planning, capital, operating and administrative assistance to state agencies, local public bodies, nonprofit organizations, Indian tribes, and groups and operators of public transportation services. They are to be used for transportation projects in rural areas of less the 50,000 population, although they may include the transportation of non-urban residents to and from urban areas.

Assistance:

States may use up to 15 percent of their apportionments for administration, planning and technical assistance activities. These expenses are funded at 100 percent federal share.

The federal share of net operating costs cannot exceed 50 percent.

The maximum federal share for capital costs is 80 percent with the following two exceptions: bicycle facilities are funded at a 90 percent match and elderly and handicapped accessibility projects that go beyond federal legal requirements are funded at a 95 percent match.

Federal funds will cover 80 percent of administrative costs, at the discretion of each state.

Revenues that operators receive from contracts for services may be used as all or part of the local match.

National funding for Fiscal Year 1990: $65.9 million. The State Section 18 allocation for New Mexico in Fiscal Year 1990 is $575,400.

h). Section 18(h): Rural Transit Assistance Program

Overview:

The Rural Transit Assistance Program (RTAP) is a program of training, technical assistance, research and other support services for non-urban transit. It provides a source of funding to assist in the design and implementation of training and technical assistance programs and other support services to meet the needs of transit operators in areas of less than 50,000 population. RTAP is made up of state and national components. The state programs provide training and technical assistance in conjunction with each state's Section 18 formula assistance program. The national program provides information and materials for use by local operators and state administering agencies.

Assistance:

Eighty-five percent of the annual RTAP funding is designated for the state programs, with the remaining 15 percent used for the national program.

State agencies apply for RTAP funding within the same grant application that they use to apply for Section 18 funding.

There is no federal requirement for a local match for the RTAP funds.

Eligible activities include training, technical assistance, research, and related support services.

National funding for Fiscal Year 1990: $5.0 million. The State Section RTAP allocation for New Mexico in FY 1990 is $64,500.

For information on the RTAP, Section 16(b)(2) and Section 18 programs, contact your state representative at the Public Transportation Program Division of the New Mexico Highway and Transportation Department.

2. Other Federal Resources

Transit agencies often provide transportation to human service agencies on a contract basis. These service arrangements are encouraged by state and federal funding agencies as a way of consolidating different kinds of public transportation for the most efficient use of public funds. At the same time, contracts with human service agencies are a good source of revenue for the transit system. The following agencies offer programs requiring transportation and may provide good opportunities for transit agencies.

a). Head Start

The Head Start program provides comprehensive child development services for pre-schoolers from low-income families. Head Start services are delivered by public and private nonprofit agencies through approximately 1,290 centers in local communities nationwide. Head Start is a discretionary grant program managed by the Department of Health and Human Services'(HHS) Administration for Children, Youth and Families. Head Start provides for the transportation of children to and from centers as well as for field trips and medical transportation. Although optional, most local Head Start programs directly provide their transportation services.

National program funding for FY 1990: $1,405 million.

Program Administration:

There are no state administering agencies for Head Start. Program management and application information is available from the appropriate HHS regional office. Interested transportation providers should contact the Head Start programs within their communities.

b). Title III Grants for State and Community Programs on Aging

The Administration on Aging (AoA), a component of the Department of Health and Human Services, administers a program of formula grants to states to finance state and community programs for older persons under Title III of the Older Americans Act. State and Area Agencies on Aging use these funds to provide responsive systems of services and opportunities for older people in each community, including services in the home, services and opportunities in the community, access services, and services to individuals in long-term care facilities. Title III of the Older Americans Act requires that an adequate proportion of its funds be used for transportation and other access services. Trips for older persons to nutrition sites, medical centers, shopping centers, etc. are furnished. Transportation can be provided through contract services with a transportation provider, with vehicles owned by the local aging program, or by volunteers driving their own vehicles. The Administration on Aging also provides funds to Native American elderly services under Title VI, which some agencies use as the non-UMTA match for Section 16(b)(2).

National program funding for Fiscal Year 1990: $744 million.

Program Administration:

Title III funds are distributed by formula through the state to designated Area Agencies on Aging, who then award grants or contracts to service providers. Interested transportation or other service providers in New Mexico should contact Stephanie Fall-Creek, Director, State Agency on Aging, 224 Palace Avenue, 4th Floor, Santa Fe, NM 87501; (505) 827-7640.

c). Administration on Development Disabilities

The Health and Human Service Department's Administration on Developmental Disabilities (ADD) assists states in increasing the provision of quality services for persons with developmental disabilities. Some ADD Basic State Grant funds are used for the transportation of developmentally disabled individuals from community living situations to employment, recreation, and medical appointments.

National program funding for FY 1990: $98 million.

Program Administration:

The majority of ADD funds are awarded to state developmental disabilities planning councils on a formula basis though ADD's Basic State Developmental Disabilities Grants program. Additional ADD funds are awarded to protection and advocacy agencies, university-affiliated programs, and projects of national significance. For New Mexico program information, contact Chris Isengard, Director, Developmental Disabilities Planning Council, Ark Plaza, 2025 Pacheco, Suite B200, Santa Fe, NM 87505; (505) 827-2707.

d). Aid to Families with Dependent Children (AFDC)

AFDC, as this program is known, reimburses states for financial assistance, grants, rehabilitation, and certain services to needy dependent children and the parents or relatives with whom they are living. In the past, transportation has been an eligible expense for state Job Opportunities and Basic Skills (JOBS) programs funded under AFDC. Under recent welfare reform, states will not have to provide for transportation necessary for eligible persons to participate in JOBS programs. Another program funded under AFDC is the Work Incentive Program, or WIN. This program provides recipients of Aid to Families with Dependent Children with appropriate job training, job placement, and other related services in order to enhance their capacity for social and economic self-sufficiency and to decrease the likelihood of long term dependency. Transportation may be provided or reimbursed to support WIN services.

National program funding for FY 1990: $9,691 million (all AFDC programs).

Program Administration:

The Department of Health and Human Services' Administration for Children, Youth and Families distributes AFDC funds to the states on a formula basis. In New Mexico AFDC programs are administered by the Department of Human Services, Alex Valdez, Secretary, P.O. Box 2348, Santa Fe, NM 8705-2348; (505) 827-4072. This department should be contacted for information on their regulations, policies, and procedures for AFDC payments and reimbursements.

e). Alcohol, Drug Abuse and Mental Health Services Block Grants

This formula grant program, known as ADMS, provides the states with funding for: the development of prevention, treatment and rehabilitation programs and activities to deal with alcohol and drug abuse; the support of community mental health centers that provide services for chronically mentally ill individuals and other populations which are currently under served; and the coordination of mental health and health care services provided by health care centers. The Department of Health and Human Services' Alcohol, Drug Abuse and Mental Health Administration (ADAMHA) oversees this program. States and sub-state-recipients can use block grant funds to provide transportation to clients and other beneficiaries of the services funded by the block grants.

National program funding for FY 1990: $790 million.

Program Administration:

Formula grants are administered by agencies designated by each states' governor (generally a state department of mental health, or equivalent). Although the level of available funds is determined by formula, each state must submit an annual application for ADMS funds.

f). Community Services Block Grants

The Community Services Block Grant (CSBG) program provides funds to states for community-based programs that offer health, nutrition, housing and employment-related services to improve the standard of living of low-income persons. Until 1981, this program was administered by the Community Services Administration. Since that time, federal administration of the CSBG program has been managed by the Department of Health and Human Services' Office of Community Services. Transportation services to assist low-income and elderly persons to obtain jobs, child care, emergency services and the like, are eligible uses of CSBG funds.

National program funding for FY 1990: $324 million.

Program Administration:

Formula grants are administered by agencies designated by each state's governor. Although the level of available funds is determined by formula, each state must submit an annual application for CSBG funds. Most funds are awarded to over 1,000 community action agencies, migrant and seasonal farm workers organizations, Indian tribes, and agencies previously funded by the Community Services Administration. Interested service providers should contact New Mexico's CSBG administering agency, the Department of Human Services, Community Assistance Section, Dorian Dodson, Programs Coordinator, P.O. Box 2348, Santa Fe, NM 87504-2348; (505) 827-7264.

g). Title V Grants for Community Service Employment for Older Americans

This program provides discretionary grants to states and national non-profit agencies for part-time work experience in community service activities for unemployed, low-income persons aged 55 and over. Transportation is an eligible use of program funds.

National program funding for FY 1990: $355 million.

Program Administration:

Although funded under Title V of the Older Americans Act, this program is administered by the Department of Labor and not by the Administration on Aging. Interested grantees and service providers should contact local Department of Labor programs, or the Labor Department's headquarters in Washington, D.C.

h). Job Training Partnership Act

The Department of Labor provides block grants to the states for training and other services for economically disadvantaged persons under the Job Training Partnership Act (JTPA). These programs and services are designed to lead to permanent gains in employment. The program includes block grants to states to design and operate training programs, grants to operate the summer youth employment and training program, and grants for programs to meet the needs of displaced workers. Program support is also provided for federally administered programs designed to assist special segments of the population that have particular disadvantages in the labor market. These groups include Native Americans, migrant and seasonal farm workers and veterans. The Job Corps is also included under JTPA. Funds for transportation to and from JTPA sponsored programs are allowable expenses.

National program funding for FY 1990: $3,946 million.

Program Administration:

The Department of Labor awards JTPA funds to state job training coordinating councils on a formula basis. Interested grantees and service providers should contact their state's job training coordinating council or the Labor Department's headquarters in Washington, D.C.

i). Migrant Health Centers

This program of the Department of Health and Human Services' Health Resources and Services Administration provides project grants to local nonprofit agencies to improve the health status of migratory seasonal workers and their families. Services include: primary and supplemental health care, hospitalization benefits, environmental health training and education, sanitation and safe working conditions.

Grantees are required to provide primary health services including the transportation required for adequate patient care. This requirement includes a wide range of functions such as the lease of vehicles to serve as mobile health care units, ambulance service, bus and cab fares, and personnel services associated with transportation.

National program funding for FY 1990: $49 million.

Program Administration:

Funding for migrant health centers is provided directly to grantees through regional offices of the Department of Health and Human Services. There is no state administrative role in this program.

j). Social Services Block Grants

Social Services Block Grants (SSBG) are awarded on a formula basis to state human service agencies to provide funds for a variety of social services such as day care, services related to management and maintenance of the home, protective services for adults and children, and employment services. Transportation services which support these or similar social services can be funded through the SSBG program.

National program funding for FY 1990: $2,649 million.

Program Administration:

The New Mexico SSBG administering agency determines what services will be provided using SSBG funds, and which agencies or programs will receive assistance from SSBGs. The state contact is Alex Valdez, Secretary, Department of Human Services, P.O. Box 2348, Santa Fe, NM 8705-2348; (505) 827-4072.

k). Community Health Centers

This program of the Department of Health and Human Services' Health Resources and Services Administration provides nonprofit local entities with funds to support the development and operation of Community Health Centers (CHC). These centers provide health services to medically under served populations in urban and rural areas. CHC regulations specify that primary care services include transportation services as needed for adequate patient care.

National program funding for FY 1990: $454 million.

Program Administration:

Funding is provided directly to CHC grantees through regional offices of the Department of Health and Human Services. There is no state management role in the CHC program.

3. State and Local Funding For Mass Transportation

a). State Aid for Mass Transportation

A number of the states provide aid for mass transportation, either in the form of financial contributions or by creating the enabling legislation for local action. In some cases, state aid is substantial in dollar amounts and may offer significant leverage when combined with local funds and used in conjunction with federal grant programs. Furthermore, as the perceived role of the federal government in transit funding changes, state aid will increase in importance.

b). Financial Aid

Historically most state transit programs have been tied to federal aid programs. state funds are typically used to match a proportion of the required local share of a federal grant. A state may, for example, agree to pay up to one-half of the local share for federal capital improvement grants or other types of federal aid. The administration of a state aid program may be quite simple, with aid being given for projects that meet federal approval. The same application prepared by a transit agency for federal funds may be submitted to the state, greatly reducing local paperwork requirements.

On the other hand, the state may set its own standards, rules, and regulations for financial aid and require separate paperwork. Whatever practice is used will depend upon the goals and objectives established by the state for its program to help mass transportation. Again, as the role of the federal government in transit and programs changes, so too will these arrangements.

Some states may have a portion of their aid program independent of federal aid programs. Among these independent state programs are purchase-of-service agreements by which the state may use its funds to provide operating or capital subsidies for transit. States may also provide a program of aid for human services programs involving either standard mass transit or special service.

c). Enabling Legislation

Many states may not give direct financial aid for mass transportation, but will provide significant help through the passage of enabling legislation. Such legislation may provide for public ownership of transit systems, the establishment of transit authorities, and the creation of transit districts with taxing powers. Enabling legislation can also be used to provide a variety of local option taxes to support transit.

Based on the experience of states that provide aid for transit through enabling legislation, the best advice appears to be to provide a wide spectrum of local option taxes that may be used to support transit and related activities. In some states, transit districts may be given authority and power to tax property only. The property tax is not popular, as discussed earlier in this chapter, and it probably is

much easier to gain taxpayer support for transit if the particular source of support may be chosen from a wide variety of levies. Some form of local income tax may be the least regressive form of taxation, although a local sales tax may be somewhat easier to put through a referendum procedure.

The sources of revenue used by states for state aid programs in transit have been quite varied. A piggyback on the license fees for automobiles or on the gasoline tax would take advantage of collection methods already in use. Some states are in the process of revising the state gasoline tax, typically collected on a gallonage basis, because the revenues have not kept pace with rises in the cost of highway construction and maintenance. The gallonage tax is unsatisfactory in that it does not reflect inflation or the higher price of crude oil (as would a sales tax on gasoline). A gallonage-based fuel tax is also affected by decreases in gasoline consumption due to the impact of federally mandated improvements in the average gasoline mileage of new automobiles and the changes in driving habits as part of fuel conservation efforts. Many states face relatively static gas tax revenues. When states are considering either raising the gallonage tax, or replacing it with a more realistic sales tax on gas, the time is ripe for including support for transit in the gas tax.

Other special levies may be attractive for financing transit activities or special portions of transit programs. For example, in Pennsylvania the state lottery is used to reimburse local transit agencies for the cost of senior citizen transportation. A liquor tax is another possible source of funds.

d). Local Funding Sources

Different kinds of public funding opportunities exist in every community. These sources include taxes, bonds, vendor financing, leasing, debt financing, and non-fare revenues such as advertising. These sources of funds will be explained in more detail below.

4. Taxes

In selecting a tax source for transit funding there are certain principles which have been generally accepted as criteria of a fair taxation method.

- Adequacy of financing. Sufficient revenue must be generated from the tax to cover the required subsidy for the transit service.

- Equality of treatment. Individuals in similar situations should be treated in a similar manner by the taxing mechanism.

- Relationship to benefits. Tax assessments should be related to the benefits received from the use of publicly provided services.

- Ability to pay taxes. Tax assessments should be related to the financial capability to pay such taxes.

- Minimal cost of tax collection. Tax funding mechanisms which require minimal effort to implement and administer should be selected.

a). Property Taxes

Property taxes have been the usual means of financing local public undertakings for many years. If property taxes have no other merit, at least they are understandable and have the blessing of being familiar to taxpayers. Collection procedures are usually well-established, and the concept is not complicated. Property taxes are, therefore, the probable foundation of public support of transit in most cities.

On the minus side, property taxes often do not reflect changes in cost or revenue needs quickly or effectively. Also, because they are usually paid in one or two installments, they seem to impose a very visible burden upon the taxpayer. Despite the fact that they are generally levied throughout the community, property taxes are typically unpopular, even though they may be generally fair in application. Adding to their unpopularity is the regressive nature of property taxes, and the burden placed on those with fixed incomes, such as the retired elderly.

It is difficult to generalize the means of levying taxes on an areawide basis through the transit authority. This matter depends largely upon the powers granted to such institutions by state laws. If an authority cannot levy taxes upon communities outside the boundary of the governmental body that created it, it may be able to achieve the same end by entering into contracts with other municipalities to provide transit service in those communities. The agreement then would permit those areas to levy taxes to meet contract obligations within the limits of the law.

b). Income Taxes

While not yet commonly used in the funding of municipal undertakings, the income tax is another means of providing funds for transit and other public purposes. This tax category includes both employer payroll taxes and employee income taxes. The freedom of the local government or authority to use such taxes depends upon state or municipal laws. One of the strongest points in favor of income/payroll taxes is that they are usually levied in biweekly or monthly installments as deductions from paychecks or on an employer's biweekly or monthly payroll amount. This should result in a steady flow of revenue into the tax coffers. The installment plan collection also removes some of the sting from the imposition of the tax--something that is certainly not true in the case of most property taxes.

The income/payroll tax is also fair because it tends to fall most heavily upon those who are most able to pay. This may be particularly important in a transit undertaking that is obliged to pay a large proportion of its costs out of the farebox. If the majority of riders are from low-income groups, they are not as heavily burdened by what is, in essence, dual taxation--the farebox and income tax.

c). Sales and Excise Taxes

Once again the ability of a local government to use a tax (or taxes) of this type will depend on the laws of the state in which the community is located. Sales and excise taxes can take a variety of forms. Some taxes apply to most items and services with only a few exemptions from the tax. Other taxes are selectively assessed on specific products, such as alcoholic beverages and tobacco. Generally a sales or excise tax is relatively easy to administer. Usually this form of tax responds positively to inflation (tax receipts will increase). However, tax collections will decrease if consumption of the taxed item declines because of other factors such as reduced demand for the item.

Two arguments mitigate against the use of sales or excise taxes for funding transit. First, these taxes are frequently regressive: persons with lower incomes pay a higher percentage of their income in such taxes than do persons with a higher level of income. This inequity can be somewhat reduced by exempting purchases of basic necessities (such as food and medicine) from the items subject to the sales tax. Second, depending upon the item to be taxed, there may be little relationship between the payment of the tax and receipt of the benefit of transit service. An example is an excise tax on cigarettes; some smokers are nonriders, and not all transit riders are smokers.

d). Taxing Difficulties

The difficulty with using any tax is that it may become unpopular. Great care has to be used in promoting the application and use of such taxes to avoid alienating the public. An overt transit tax that is considered to be a nuisance may give transit a bad name in a community.

The argument in favor of a dedicated tax is more acceptable if some relatively close tie-in can be demonstrated between what or who is to be taxed and the benefits to be gained. That is, a wheel tax levied against automobiles for the purpose of improving streets, while unpleasant, is at least dedicated to providing better streets for those who have automobiles. The connection between the taxpayer and the individual who benefits is quite clear, and taxpayers are less likely to resent the expenditures they must make.

If a dedicated tax (or taxes) is used, probably the wisest course is to call the dedicated transit tax, however imposed, a "mobility tax," with the proceeds used for the general enhancement of mobility. Most of the proceeds would go to offset any losses of the transit operations. Other portions of the fund could be used for purposes generally related to mobility--to provide stop signs or traffic signals, to install turn lanes at intersections, to provide off-street parking, or to help support special services for the elderly or handicapped. Offering broad benefits to both transit users and nonusers should make the dedicated transit tax more acceptable to the public.

5. Bonds

Bonds issued by public bodies for transit purposes are of two general types: general obligation and revenue. There are also several special categories.

a). General Obligation Bonds

General obligation bonds are backed with the full faith and credit of the taxing power of the issuer. There is no dependence upon transit revenues to pay off fare-backed bonds, so that pressure is less likely to be placed upon the farebox.
The problem with general obligation bonds is that, in many instances, they must receive voter approval through a referendum. If the sum involved is large, gaining approval may be difficult. Approval is also difficult if a community is experiencing one of the periodic taxpayer revolts in which any referendum item that will increase taxes is bound to fail at the polls. If the referendum route is to be used, it must be carefully timed, and a strong campaign must be developed to sell the bond issue to the voters.

b). Revenue Bonds

Revenue bonds are used when the transit operation is revenue-producing and may be expected to pay off its debt through the farebox. The advantages of revenue bonds are:

- The users help pay for the facilities rather than imposing a burden upon the entire community and the general taxpayer.

- Public agencies that overlap political boundaries can use these bonds more easily than forms of debt obligation that rely upon the property tax.

- Usually, bonds can be issued without voter approval.

The issuance of revenue bonds requires that money be placed in a sinking fund for repayment of the bonds. Revenues, therefore, must be sufficient to cover operating costs as well as the sinking fund allotments. In a time of greatly increasing cost, it may be difficult to hold fares within reasonable levels. Since the payment of revenue bonds is based on the revenues earned by the undertaking, they are slightly more risky than general obligation bonds. Therefore, the rate of interest required for revenue bonds is usually higher than that required for general obligation bonds. Because few transit operations have sufficient revenue to cover even operating costs out of the farebox, fare-backed revenue bonds are generally impractical.

An alternate arrangement has arisen whereby the proceeds of a specific tax, such as a local sales tax, are dedicated to repay the bond obligation. Revenue bonds do not carry the full faith and credit of the issuer. Repayment sources are limited to the proceeds from operating revenues of the project or from the dedicated tax.

c). Special Assessment Bonds

Sometimes special assessment bonds may be issued. In this situation, the debt is paid off by a special assessment on property owners who stand to benefit in a more than ordinary manner by the service provided through the funds raised from the bonds. In the case of the small-scale transit operation, assessment of special bonds might be used to finance the construction of a downtown terminal building, if

downtown merchants and business owners were expected to gain special benefits from the presence of such a terminal. Downtown properties would then be assessed at a higher rate than other property.

d). Municipal Assistance Bonds

A governmental body might float a bond issue for transit because the city may be able to procure a lower interest rate than a public transit operation that is only empowered to issue revenue bonds. The public transit enterprise would then reimburse the city, which, in turn, pays off the bonds. Even if a transit agency can issue general obligation bonds, the municipal bonding route should be followed if a municipality is able to issue bonds at a lower rate of interest.

6. Vendor Financing

This form of long-term financing is usually available from equipment manufacturers for use in acquiring transit vehicles. The loan is secured by the equipment being purchased and is normally repaid from operating or public assistance revenues.

7. Private Leasing

This is a commonly used means of providing long-term financing for capital assets (equipment, facilities, etc.). Under such a lease-purchase arrangement the private (for-profit) firm owns the equipment which is purchased using tax-exempt revenue bonds. The bonds cover most of the purchase price of the equipment. The transit property leases the vehicles, with the lease payments going to meet the interest and principal payments on the bonds. At the end of the lease the transit property becomes the owner of the vehicles. The use of favorable tax laws allows the private investor to develop a beneficial lease/purchase arrangement with the transit property.

8. Debt Financing

These sources of revenue depend upon borrowing funds to finance current operations or current expenditures for capital projects. The dept is then paid over a period of time using proceeds generated by the project or from future revenues from tax sources. Such debt financing can take a variety of forms.

a). Grant Anticipation Notes

One form of short-term debt financing is through the use of grant anticipation notes. These notes are issued to provide working capital before the receipt of government grants or other types of financial assistance expected from the government.

b). Tax Anticipation Warrants

Another form of short-term financing is tax anticipation warrants, which are available to transit authorities permitted to use a dedicated tax. Such a tax is usually assessed and collected one or two times a year. There may be a delay in the

transit authority's receipt of cash proceeds of the tax from the agency which collects the tax. A tax anticipation warrant may be issued by the transit authority and repaid with the proceeds of the tax when those monies are turned over to the transit authority.

9. Other Revenue Sources

a). Advertising

Bus advertising can earn money for the transit system and build a stronger relationship with local business people. As local businesses and service organizations get involved in bus advertising, the community will be more aware of public transportation as an aid to economic development. Exterior sign space is on the sides and on the back of the vehicle. Depending on the interior design of the vehicle, there may also be inside space above the windows. The primary advantage of advertisements on public buses is name recognition.

b). Non-Transportation Revenues

This category involves revenues that are generated from activities performed by the transit system which are not associated with the provision of transit service by the transit system. Performing maintenance work on vehicles not owned or used by the transit system is one possible source of such additional revenue.

C. Budgeting

Budgeting is the process of balancing estimated revenues and cost. In this context, the development of an operating budget for a Section 18 Transit Property is no different than the development of an operating budget for a private for-profit firm or, for that matter, an individual's household. For the private firm, costs in excess of revenues translate to an operating loss. If adjustments are not made, the firm cannot meet its financial obligations and goes out of business. For the individual household, expenditures in excess of income translate to mounting debt and financial insolvency. Adjustments must be made (e.g., more income or reduced expenses) or personal bankruptcy results.

The preceding statements are, of course, applicable to Section 18 Transit Properties -- which are small businesses. Estimated revenues and cost must be balanced and continuously monitored to ensure financial stability, and to minimize cash flow problems.

1. Section 18 Application Requirements

An annual operating budget is a requirement of the Section 18 Grant Application Process. Applicants are required to submit an operations profile to the NMSHTD, and to update the profile annually. The profile includes a non-operating and

operating budget, a budget summary for the current and proposed fiscal year, and a summary of operating statistics. Samples of required capital, administration, operation, and summary budget forms, are included in the Appendix to this chapter. Brief descriptions of each follow.

a). Capital Budget

Capital budget expenses include the acquisition and installation of required capital items. The federal share cannot exceed 80% of net eligible capital cost, as mandated by Congressional action.

Examples of eligible capital expenditures include, but are not limited to:

- buses
- vans or other paratransit vehicles
- radios and communications equipment
- passenger shelters
- wheelchair lifts and restraints
- vehicle rehabilitation
- operational support such as computer hardware/software
- spare parts with a unit cost over $300 and a useful life of more than one year

Due to the limited amount of Section 18 funding apportioned to the state of New Mexico, funding for the construction or rehabilitation of transit facilities is precluded.

b). Administrative Budget

Examples of eligible administrative budget costs include, but are not limited to:

- vehicle insurance and other general liability insurance
- office rent
- postage
- marketing expenses
- office supplies
- utilities
- salaries of the project director, secretary, and bookkeeper
- fringe benefits
- audit
- dues and subscriptions
- training

For fiscal year 1990 -1991, the federal share of eligible administrative costs can not exceed 65% of the net administrative cost, as mandated by Congressional action. It is projected that the federal share will be reduced at a rate of 5% per year to a final level of 50% in the 1993 - 1994 application year.

c). Operating Budget

Operating budget expenses are considered to be those costs directly related to system operations. For the Section 18 program, eligible operating expenses may include, but are not limited to:

- fuel
- oil
- replacement tires
- replacement parts which do not qualify as capital expenses
- maintenance and repair
- license fees
- audit
- vehicle insurance and other general liability insurance
- office rental
- postage
- advertisement
- printing
- training
- supplies
- utilities
- driver and dispatcher salaries
- mechanics salaries
- fringe benefits

The federal share of net operating expenses can not exceed 50%. Net operating expenses are those expenses that remain after operating revenues are subtracted from eligible operating expenses.

Operating revenues include all funds generated through system operations, including but not limited to, fares (in whatever form they are collected), sale of advertising space, etc. Any organization receiving federal funding is required to charge fares.

2. The Budgeting Process

The first step in the budgeting process is to estimate anticipated revenues both in total and by reporting period-usually one month. Anticipated revenues should be itemized by source of revenue; e.g., cash fares, county match, sale of advertising space, etc.

The next step is to develop the estimated cost portion of the budget. This is an iterative process; i.e., if estimated costs are twice projected revenues, adjustments must be made. Since this is an iterative process, the use of a computerized spreadsheet should be considered. Costs should be stratified by major cost item and, within major items, by sub-items.

An example of a budget for a Section 18 property is included in the Appendix to this chapter.

Budgeting is of no value unless the budget is continually monitored. Anyone can develop a budget that's easy. The difficult job is to make the required adjustments when your estimates fail to happen as planned; e.g., "cash revenues have been $5000/month less than forecast for each of the last three months. I have to cut costs. My alternatives are to:

a). _____

b). _____

c). _____, or

d). Let someone go.

It is never easy, and in fact is sometimes unpleasant to make the tough decisions. However, you are running a business and must do what is best for your community.

D. Cost Allocation

1. Introduction

Cost allocation is the process of equitably allocating total agency cost to the functions or services provided by the agency. For example, assume that Agency A provides two basic services; e.g., congregate meals and transportation. Further assume that the agency's transportation department provides Section 18 services for the NMSHTD and medical assistance services for the Department of Public Welfare, and that the agency's total annual cost is $100,000. the objective of cost allocation is to allocate total cost to the individual service functions; e.g.,

Service Function	Allocated Cost
Congregate Meals	$40,000
Transportation	
Section 18	$40,000
MATP	$20,000
Total	**$100,000**

To accomplish the above, methodology must be developed to ensure that each service function is allocated or charged a fair share for services provided. In addition, effective cost allocation is useful in:

- Evaluating the individual components of total cost (e.g., administration, maintenance, etc.).

- Planning service modifications (e.g., increase or decrease in service by function, or within function).

- Monitoring specific service components.

- Ensuring all service functions are invoiced equitably, and

- Comparing proposals submitted by public and private agencies (i.e., fully allocated costing).

In reference to the last item above, it should be noted that cost allocation is required of all public operators who receive UMTA funds, all non-profit agencies bidding to provide UMTA funded services, and any agency that provides more than one service. It should be further noted that fully allocated costing is required on the part of public providers when competing against private carriers; e.g., public agencies using Section 18 vehicles must reflect the true cost associated with the use of those vehicles (depreciation, interest, etc.).

2. Cost Allocation Methodology

The principal underlying cost allocation is that the total cost incurred in producing a specific product, or in delivering a specific service should be attributed to that product or service. The costs to be considered include capital and operating, fixed and variable, and direct and shared.

Capital costs include items such as vehicles, maintenance facilities, or other long-term physical acquisitions. Operating costs include labor, benefits, materials and supplies, and other expenses attributed to operations. Capital costs plus operating costs will equal the entire cost of your system.

Capital and operating costs can be further defined as fixed or variable. Fixed costs are those that do not vary with the amount of service provided; e.g., administrative salaries, facility-related capital costs, etc. Variable costs change with the amount of service that is provided; e.g., driver's wages, fuel costs, etc.

Capital and operating costs can also be defined as direct or shared. Direct costs are those which are directly attributable to a particular service function or funding source, while indirect or shared costs are those that cannot be allocated exclusively to a specific segment of service, but are shared by the range of services provided by the system. A simple example of an indirect cost would be the agency's computer system.

It is not the intent of this Guidebook to provide a complete, comprehensive methodology for cost allocation work, since it can be relatively simple or somewhat complex. It depends on your local situation.

For those agencies whose local situation warrants a comprehensive cost allocation methodology, it should be noted that the following are three excellent publications on transit costing to further your understanding of the subject.

- Cost Analysis Methodology for Demand-Response Service, COMSIS and Lewis Polin & Associates, U.S. Department of Transportation, October 1988.
- Fully Allocated Cost Analysis: Guidelines for Public Transit Providers, Prepared by Price Waterhouse, April 1987.

- Base Route Costing Procedures: A Review, U.S. Department of Transportation, May 1981.

In addition to these publications, the Public Private Transportation Network (PPTN) has developed microcomputer software for transit cost allocation. This computerized Cost Allocation Model (CAM) is a decision support tool that estimates, through a user-specified cost allocation procedure, the cost of supplying transit services. CAM can be used to determine an agency's fully allocated costs, as well as to estimate the marginal costs associated with providing a specific service. A fully allocated cost estimate represents a complete accounting of all labor, capital and material resources used in the delivery of a transit service. The estimate of marginal or incremental costs, represents the change in cost resulting from an increase or decrease in the level of transit service output. PPTN has also developed a training course (Cost Allocation and Cost Estimation for Better Management) to help transit providers develop their agency cost allocation policies.

For these agencies whose cost allocation requirements are less complex, it is recommended that you review Item 3 below to develop an overall appreciation for how this subject should be approached.

3. Overview of Cost Allocation

In the state of Pennsylvania, auditors for the Departments of Transportation and Public Welfare are very concerned that cost allocation procedures are in place for agencies receiving funding from their departments. Their job is to ensure that their department is not being overcharged. It is fair to say that these auditors are as concerned that a cost allocation plan is in place and being followed, as they are about the very specific details of the plan. It follows that it is advisable that every agency using multiple funding sources think their way through an equitable cost allocation plan, and follow that plan. The details of the plan can always be modified if required; e.g., change the percentage distribution for a particular line item.

Briefly, COMSIS manages the Washington County Pennsylvania Transportation Program. Our method of allocating costs (a method that satisfies auditing scrutiny) is as follows.

- We identify all costs associated with the program, and stratify those costs basically as shown below. It should be noted that this is not an all inclusive list.

• Personnel		
· Program Administrator	Per Time Sheet	Per Time Sheet
· Program Supervisor	Per Time Sheet	Per Time Sheet
· Data Entry Clerk	Per Time Sheet	Per Time Sheet
· Etc.	Per Time Sheet	Per Time Sheet
• Transportation		
· Provider 1	Per Trip	Per Trip
· Provider 2	Per Vehicle Mile	Per Vehicle Mile
· Provider 3	Per Vehicle Hour	Per Vehicle Hour
· Etc.		
• Other Direct		
· Fixed		
- Rent	Per sq. ft.	per sq. ft.
- Computer	50%	50%
- Copy Machine	50%	50%
- Etc.		
· Variable		
- Copier Usage	Per Copy	Per Copy
- Local Travel	Per Expense Acct.	Per Expense Acct.
- Materials/Supplies	60%	40%
- Etc.		

- All costs are allocated as accurately and reliably as possible using procedures and forms readily available to auditors and others; e.g.,

Personnel

All personnel record time spent on each program at the end of each day. Personnel costs are very accurately distributed. Personnel costs include fringe benefits, overhead and G & A expenses; (i.e., a fully loaded rate).

Transportation

Our computerized system very accurately costs and distributes every client trip provided by carriers under contract, on either a per trip, vehicle-mile or vehicle-hour basis. It should be noted that agencies providing their own transportation many have to further stratify transportation costs by cost items such as maintenance, driver wages, etc.

Other Direct

Fixed Costs - where possible, fixed costs are allocated on the basis of a supportable unit; e.g., rent is allocated on a per square foot basis. Other fixed costs (e.g., computer lease and maintenance) are allocated on the basis of other rationale (the computer is needed by both programs and it is reasonable to split the cost between the two programs).

Variable Costs - again, where possible, supportable cost units are used, e.g., copier usage is on a per copy basis, local travel is recorded on expense forms (e.g., 5/19/90 - from office to county buildings),

> DOT MTG, 20 miles @ $0.24/mi. = $4.80.
> Account No. = 495(DOT).

Where not possible, judgement is used to estimate allocation percentages; e.g., we processed 1000 trips last month, 600 for DOT - 400 for MATP, we will allocate the cost of materials and supplies 60% / 40%.

In developing and implementing cost allocation procedures, discretion and common sense should be employed. For example, if 60% of your total cost is transportation, 30% is personnel, and 10% is other, it makes good sense to spend the time required to equitably allocate transportation and personnel (90% of the total cost) and, if necessary, quickly allocate the remainder (e.g., 50/50).

Cost allocation is important -- everybody wants to feel confident they are not getting overcharged. Although it can be complex, with some thought it can be relatively simple yet very beneficial in managing your agency in a businesslike manner.

E. Accounting

With the advent of microcomputers, processing capabilities previously found only on *mainframe* computer systems have become available to the average user at individual desktop workstations. Technological advances in the field of computer systems has been accompanied by an equal growth in the availability of *package* software for general business applications. The availability of off-the-shelf packages such as general ledger, accounts receivable, accounts payable, payroll, order entry, and inventory, make it possible for a small transit agency to automate many of its accounting functions.

1. Automated vs Manual Systems

While many small transit agencies perform all recordkeeping functions manually, others use spreadsheet programs or regression packages to analyze ridership data or to prepare graphs summarizing statistical information. If you are using one of these methods, and can process your data efficiently to meet all federal, state, and local reporting requirements in a timely manner, there is little to be gained by changing to an automated approach.

Generally, the decision to automate accounting functions should be based on the complexity of your situation. For example, processing data for several hundred accounts and/or vendors coupled with more than 600 transactions each month would probably indicate a need for an automated system. Fill in the blanks below for your agency to assist you in evaluating your needs in this area.

- Number of accounts _____
- Number of vendors _____
- Number of transactions _____

Additionally, you must evaluate the complexity of all reporting requirements (i.e., federal, state and local) for your agency. If the preparation and submittal of these reports seriously impacts current staff capabilities, an automated accounting system is definitely the answer.

Once your agency has made a decision to automate accounting functions, several major decisions must be made:

- Can our present hardware be used?
- If not, what type of hardware configuration should we purchase?
- Which software package will meet our accounting needs?

All are difficult decisions and require a great deal of research.

2. Hardware

If you are already using a specific type of hardware, you should limit your review of software packages to those compatible with your existing configuration. Although this may limit your possible software choices, current applications being used by your staff will still be available after the addition of the new software. You may wish to retain your present hardware configuration in order to maintain compatibility throughout your organization. This approach provides the ability to swap data and allows your agency to establish organizational backup procedures.

A decision to retain your present hardware configuration will require the following associated considerations in your choice of an accounting package:

- Is the current version of the operating system correct for this package?
- Does the hardware have sufficient internal memory?
- Should additional hard disk storage capacity be purchased?
- Will the software work with printers and monitors currently in use?

The answers to these questions can be found in the product literature provided by each software vendor.

If you do not have any hardware at present, you should first identify software packages which best address your functional requirements. Reduce the number of packages to be further evaluated to three or four, and carefully study the hardware requirements of each. As part of your final decision, consideration should also be given to the hardware requirements of other applications you may wish to purchase (e.g., word processing, spreadsheet, etc.) for your new computer system. Be sure to consider the following questions when purchasing new hardware:

- Is hardware support readily available in my area?
- What is the average response time for a support call?
- Will a loaner machine be provided if the system fails?
- Can the hardware be upgraded to meet future needs?

Whether you choose to retain your present hardware or purchase a new system, it is also important to evaluate the type of system needed. If more than one person at a time needs to access accounting data (or other application software), you should consider a multi-user system rather than a stand-alone computer. There are a wide variety of low-cost, multi-user hardware configurations available today. To save money, many agencies network existing PC-type computers together to achieve a multi-user capability.

To assist the review process, make a checklist similar to Work Sheet #1 shown in the chapter appendix. List each software package to be reviewed along with compatible hardware and operating systems.

3. Software

This section of the workbook provides information which will assist you in making a choice of an appropriate accounting package. Although many packages will meet your general accounting needs, the software chosen should also meet the unique requirements of the transit industry.

Many states base their accounting approach on the uniform reporting requirements developed by the U. S. Department of Transportation for urban transit systems (Section 15). Using Section 15 reporting requirements as a base, a chart of accounts can be adapted which will benefit providers receiving funds from the Department of Transportation under both Section 18 (rural) and Section 9 (urban) sources.

Before implementing an automated accounting system at your agency, consult your state officials to learn whether guidelines can be provided which outline a standardized accounting approach. If none exist, providers should urge the state to provide leadership in this area in order to:

- standardize account titles and definitions
- standardize accounting and billing practices
- utilize standard performance measures
- allow providers to share problems, solutions and experience
- allow calculation of industry averages
- allow comparison of historical records among providers
- enable identification of system strengths and weaknesses
- simplify the reporting burden

a). <u>General Product Selection Criteria</u>

The decision to automate the accounting functions at your agency will require the purchase of three basic applications: general ledger, accounts payable, and accounts receivable. All things being equal, these packages should be integrated

and include an interface between applications rather than purchasing each application from a different vendor. In addition, your selection should be based on the criteria outlined below.

b). Ability to Solve the Problem

In order to determine whether a particular software package should be given further consideration, complete the checklist provided by Work Sheet #2 in the chapter appendix for each package to be evaluated. This approach will assist you by reducing the number of choices to a few appropriate packages. As a rule, a minimum of 80 to 90 percent of the application requirements should be addressed by the software selected.

c). Ease of Use

The software chosen should be "user-friendly". This means that no computer experience is required of the user in order to run the system. At a minimum, the software should provide:

- menus to guide the user to an appropriate option;
- useful, on-line help messages;
- formatted input prompts; and
- error checking of user inputs.

d). Expandability

Make sure you choose a package which allows for future growth and change. Determine whether the software can handle increased numbers of accounts, transactions, vendors, etc.

e). Adequate Security and Control

Because of the confidential nature of most accounting data, the software chosen should provide password protection for each application in use. It is most desirable that this protection be provided for individual options on each menu in the system.

To protect the system against loss of data through operator error or system failure, a regular, daily backup procedure should be instituted. Some packages simplify this process by including backup as a menu option and prompting the user for the insertion of diskettes or tape.

f). Adequacy of Documentation

Carefully review the documentation provided before making your software selection. Consider whether it is well written, well organized and complete. The documentation should be easy to understand and should include step-by-step instructions for each menu option.

g). Training and Support

Many software vendors provide the user with tutorial diskettes accompanied by a basic training manual. Although helpful to beginning users, a more formal training course is desirable. When no such course is available through the vendor, you may wish to contract with an independent consultant who offers training for the selected software package.

Support should be available via a "hotline" service throughout the warranty period. Before making your purchase, determine whether a software maintenance arrangement can be made with the vendor for on-going support. Purchase of a maintenance agreement usually includes package upgrades and correction of system problems.

Complete a separate version of Work Sheet #2 for each software package to be evaluated. One of your best sources for this general information is available through literature provided by each vendor. Before you begin, place an asterisk (*) beside each item on the work sheet which is considered absolutely essential by your agency. It is important that you designate "required" general software features realistically. When you are unsure, a feature should simply be marked "desirable" rather than "required". This is an important distinction. You may need to compromise on some of your general requirements in order to obtain a package which meets most of your specific accounting requirements.

4. Specific Product Selection Criteria

Three applications are considered essential in order to meet the general accounting functions of a transit property -- general ledger, accounts payable, and accounts receivable. Although the package chosen may include other integrated applications (e.g., payroll, inventory, etc.), we will confine our discussion to these basic system requirements.

a). General Ledger

A general ledger is used to accumulate information about the status of an organization and to prepare financial reports required to manage the organization. The package chosen must be flexible enough to meet reporting requirements unique to the transit industry such as UMTA Section 18 and Section 9 reporting, or specific requirements imposed by a state or other funding agency. Requirements which **must** be addressed by the selected general ledger package are listed in four separate categories on Work Sheet #3 in the chapter appendix as follows:

- Account Identification
- Accounting Periods
- Reports
- Other

Individual items which are considered requirements for all transit agencies have been marked with an asterisk (*) for easy identification. Other features listed in each category are considered desirable, but not absolutely necessary. A brief discussion of the most important requirements follows.

Account Identification

At a minimum, the general ledger software must include an eight-character account number (9 or 10 is more desirable) to accommodate UMTA reporting requirements. In addition, the user should be able to specifically define the account coding scheme and account names which will appear on financial reports. Although the number of accounts required will vary from agency to agency, as a general rule, small to medium size properties require from 200 to 800 accounts.

Accounting Periods

The user should be able to specify the appropriate number of accounting periods to be used (12 or 13) and should also be able to define the fiscal year period. At a minimum, posting to multiple open periods is a required software feature which will permit the entry of transactions for more than one month at a time.

Reports

Standard reports which should be an integral part of the general ledger package chosen must include: trial balance; balance sheet; income statement; and transaction detail. Additionally, in order to accommodate UMTA and specific state and local reporting requirements, the software must provide the capability of producing user-defined reports.

Other Requirements

In addition to the important features listed above, the general ledger package should include balance control to prevent one-sided entries and validation of operator entries in specific fields (field edit). A package which limits the number of transactions each month to less than 500 should not even be considered.

Once you have selected a general ledger package, you will be ready to begin defining the account numbers to be used in your system. The standard format used in accounting for general ledger codes is shown below for your review.

Classification	**Account Numbers**
Assets	100-199
Liabilities	200-299
Capital	300-399
Revenues	400-499
Expenses	500-599

Using this standard coding scheme, you will then define specific account names and sub-account numbers. Figure 7.1 on the following page provides an example Chart of Accounts which could be used by a small transit agency. If you have chosen the right package, you will be able to define additional accounts specifically required by your agency.

b). Accounts Receivable

The accounts receivable system controls customer accounts and should ensure that your agency will receive timely payments for services rendered. These services might include advertising, ticket sales, charter services, employee expenses, and subsidy and grant payments from governmental organizations. The software chosen should permit the definition of receivables to include categories such as elderly and handicapped transportation services, vanpool lease programs and other contract services.

Features which are required by the accounts receivable package chosen have been marked with an asterisk on Work Sheet #4. Fill out a separate work sheet for each accounts receivable package to be evaluated for comparison purposes. A description of some of the most important requirements follows.

Figure 7.1: Example Chart of Accounts for a Small Transit Agency

		ACCOUNT TITLES
400		REVENUES:
	40101	FULL ADULT FARES
	41002	LOCAL SENIOR CITIZEN FARE ASSISTANCE
	41101	STATE GENERAL OPERATING ASSISTANCE
500		EXPENSES:
	50101.1	OPERATORS SALARIES AND WAGES
	50104.3	ADMIN. SALARIES AND WAGES
	50201.1	FRINGE BENEFITS - FICA (OPERATORS)
	50201.3	FRINGE BENEFITS - FICA (ADMIN.)
	50207.1	FRINGE BENEFITS - UNEMP. INSURANCE (OPER.)
	50207.3	FRINGE BENEFITS - UNEMP. INSURANCE (ADMIN.)
	50305.2	CONTRACT MAINTENANCE SERVICES
	50401.1	FUELS & LUBRICANTS CONSUMED
	50703.2	PROPERTY TAXES
	51305.3	DEPRECIATION - SERVICE VEHICLES
100		ASSETS:
	10101	CASH
	10207	RECEIVABLES FOR OPERATING ASSISTANCE
	11101	TANGIBLE TRANSIT OPERATING PROPERTY - PROPERTY COST
	11102	TANGIBLE TRANSIT OPERATING PROPERTY - ACCUM. DEPR.
200		LIABILITIES:
	20101	ACCOUNTS PAYABLE
	20201	FICA PAYROLL DEDUCTION WITHHELD
	20202	FEDERAL INCOME TAXES WITHHELD
	20203	STATE INCOME TAXES WITHHELD
	20304	ACCRUED PROPERTY TAX PAYABLE
	20305	ACCRUED FICA TAX PAYABLE
	20306	ACCRUED FED UNEMP INSURANCE PAYABLE
	20307	ACCRUED STATE UNEMP INSURANCE PAYABLE
300		CAPITAL:
	30401	FEDERAL GOV'T CAPITAL GRANT
	30501	ACCUMULATED EARNINGS

Customer File

The customer code field should include from 6-10 alphanumeric characters. Use of an alphanumeric code allows the use of a meaningful abbreviation technique which is much easier for an operator than trying to remember numeric codes. At a minimum, the software should allow entry of 200-500 customer codes.

Transaction Types

Accounts receivable software should be able to process a variety of payment transaction types. At a minimum, these should include: cash receipts for the full invoice amount; partial invoice payments; and overpayments. The total number of transactions which can be stored for any monthly period should be in the range 500 to 1000. Software which limits transactions in the accounts receivable package to less than 500 should not be considered.

Reports

Standard reports which should be an integral part of the accounts receivable package chosen must include the following:

- Aged accounts receivable by due date
- Aged accounts receivable by invoice date
- Invoice processing
- Account statements
- Cash receipts journal
- Customer listing

In addition, the software should provide the capability of producing user-defined reports, and should allow preview of all reports before printing actually takes place.

All account numbers used in the accounts receivable system will be defined in the range 100-199 and are listed as "Assets" in the example chart of accounts included as Figures 7.1 and 7.2 in this chapter.

c). Accounts Payable

The requirements for tracking payments for a transit agency are exactly the same as those used by any business enterprise. Payables for a transit agency represent purchases of materials and supplies such as fuel, oil, and other consumables, and contract and other services.

Each of the features which should be considered "requirements" by your agency when choosing an accounts payable package have been marked with an asterisk (*) on Work Sheet #5. A separate work sheet should be used for each accounts payable package evaluated to allow comparison of these required features. A brief discussion of some of the more important features which must be included in the accounts payable package follows.

Payment Scheduling

The scheduling of payments should be based on either the discount or due date depending upon the policy of your agency. In addition, the software should allow the deferral of vendor payments to avoid automatic scheduling in special cases.

Payment Selection

Invoices should be selected for payment based upon the discount and/or due date according to the terms most favorable to the transit agency. An edit listing of this process should be produced which allows the operator to override automatic selections before checks are printed.

Payment Calculation

All payment amounts should be automatically calculated by the accounts payable software taking into account discount percentages and other considerations. The operator should be given an opportunity to override the calculated amount to make a partial payment when necessary.

Check Printing and Reporting

The software should provide the capability of printing checks on pre-printed forms. When the printer fails during a check printing run, the operator should be able to reprint checks beginning at any point.

Reports which should be an integral part of the accounts payable package chosen must include at a minimum:

- Open invoice by vendor
- Open invoice by due date
- Cash requirements
- Check register
- Vendor list
- Transaction detail list

Vendor File

Maintenance of the records in the vendor file should permit entry of a vendor code of at least 6-10 alphanumeric characters. Use of alphanumeric vendor codes permits the definition of understandable codes which are more easily remembered by the operator. The software chosen should allow entry of from 300 to 1000 vendors, and should include the capability of entering "one-time" vendors to permit payments to vendors used infrequently.

All account numbers used in the accounts payable system will be defined in the range 200-299 and are listed as "Liabilities" in the example chart of accounts included as Figures 7.1 and 7.2 in this chapter.

Figure 7.2 (included on the following pages) is a more comprehensive Chart of Accounts which can be used by a transit property. The example Chart of Accounts provided has been excerpted from the report "Rural Transportation Accounting" which was prepared by the Transportation Accounting Consortium of the Michigan Department of Social Services for distribution by the Office of the Secretary of Transportation. Specific example account titles are provided in each general ledger classification for your information and review. It should be noted that account numbers and titles will vary dramatically from agency to agency, but the software you choose should be flexible enough to allow a similar chart of accounts structure.

Figure 7.2.1: Asset Classification Codes

101 CASH AND CASH ITEMS
These categories cover cash on hand and in banks available for the liquidation of transit system liabilities, including special deposits for which a current liability exists.

102 RECEIVABLES
These categories cover amounts owed to the transit system by other parties.

103 MATERIALS AND SUPPLIES INVENTORY
This category covers the cost of all unapplied materials and supplies including tools, repair parts, fuel, etc. The cost shall include all specifically assignable transportation charges incurred in obtaining the delivery of such materials and supplies upon the premises of the carrier, including loading and unloading. The cost shall also include sales and excise taxes, except for such taxes on fuel and lubricants, on the materials and supplies included in the account (see Section 2.3). If the "inventory method" of accounting for repairable items (see Section 2.4) is used, this category will also include the value at which the repaired items are to be held and eventually reissued for use.

104 OTHER CURRENT ASSETS
This category covers the amount of all assets of a current nature not includable in any of the foregoing current asset accounts, 101 through 103. The nature of current assets is such that they are convertible to cash within one year of the balance sheet date.

105 WORK IN PROCESS
These categories cover labor, material, and overhead amounts applied to projects not yet completed or placed in service.

111 TANGIBLE TRANSIT OPERATING PROPERTY
These categories cover transit operating property owned by the transit system and having an expected life in service of more than one year at the time of its installation and a unit cost greater than the transit system's capitalization cutoff. Transit operating property is that property used in providing urban mass transit services. It includes the rolling stock, maintenance facilities, general administration buildings and equipment, etc., that are used to support the provision of transit service.

NOTE: Under the Section 15 reporting system, the gross historical cost of tangible transit operating property is to be reported in this object class.

111.03 ACCUMULATED DEPRECIATION - OPERATING
The cumulative depreciation charges since time of acquisition for all of the tangible transit operating property items owned by the transit system.

112 TANGIBLE PROPERTY OTHER THAN FOR TRANSIT OPERATIONS
These categories cover tangible property owned by the transit system but not used in transit operations. This property has an expected life in service of more than one year at the time of installation and a unit cost greater than the transit system's capitalization cutoff. It includes property being used in some operation other than transit service and property not being used in any operations.

NOTE: Under the Section 15 reporting system, the gross historical cost of tangible property other than for transit operations is to be reported in this object class.

112.02 ACCUMULATED DEPRECIATION - NON OPERATING
The cumulative depreciation charges since time of acquisition for all of the tangible property items owned by the transit system but not used in transit operations.

121 INTANGIBLE ASSETS
These categories cover the intangible rights and benefits accruing to the transit system with a value enduring through a period of time longer than one year.

131 INVESTMENTS
These categories cover investments of transit system funds in the operation of other entities for purposes other than the temporary investment of surplus cash.

141 SPECIAL FUNDS
These categories cover cash and near cash items whose use is restricted to satisfying a specific class of transit system long-term obligations.

151 OTHER ASSETS
These categories cover the assets not properly includable in major categories 101 through 141 above.

Figure 7.2.2: Liability Classification Codes

201 TRADE PAYABLES
These categories cover obligations to pay for purchases of goods and services.

202 ACCRUED PAYROLL LIABILITIES
This category covers obligations to pay for the labor services rendered by employees of the transit system, including deductions from employees' wages for Social Security, income taxes, and other similar items.

203 ACCRUED TAX LIABILITIES
This category covers obligations to pay taxes (income,property, payroll,etc.) which have accrued during the accounting period.

204 SHORT-TERM DEBT
These categories cover obligations to repay borrowings for periods of less than one year and current maturities of longer-term financing transactions.

205 OTHER CURRENT LIABILITIES
These categories cover miscellaneous obligations of the transit system due within one year of the current period ending date and not properly includable in categories 201 through 204.

211 ADVANCES PAYABLE
These categories cover longer term obligations of the transit system evidenced by open accounts and notes etc.

221 LONG-TERM DEBT
These categories cover obligations of the transit system due after one year from the current period ending date and evidenced by formal long-term debt instruments such as equipment obligations, bonds, etc.

231 ESTIMATED LIABILITIES
These categories cover amounts which have been established and segregated as estimates of future liabilities.

241 DEFERRED CREDITS
This category covers credit balances in suspense accounts that cannot be entirely cleared and disposed of until additional information is received, and other items of a deferred nature.

Figure 7.2.3: Capital Classification Codes

301 PUBLIC (GOVERNMENTAL) ENTITY OWNERSHIP
This category covers the ownership of the transit system if it is organized as a public entity, such as a transit department of a municipal government, an independent regional transit authority or district, a transit operating entity of a state government, etc.

302 PRIVATE CORPORATION OWNERSHIP
These categories cover the ownership of the transit system if it is organized as a private corporation.

303 PRIVATE NON-CORPORATE OWNERSHIP
These categories cover the ownership of the transit system if it is organized as a private, noncorporate entity, i.e., a sole proprietorship or partnership.

304 GRANTS, DONATIONS, AND OTHER PAID-IN-CAPITAL
These categories cover capital funds or property supplied to the transit system for which an evidence of ownership obligation to repay was not given by the transit system.

305 ACCUMULATED EARNINGS (LOSSES)
These categories reflect, in the aggregate, the net cumulative results of operations accruing to the ownership.

Figure 7.2.4: Revenue Classification Codes

401 PASSENGER FARES FOR TRANSIT SERVICES
These categories cover revenue earned from carrying passengers along regularly scheduled routes and demand-response generated revenues. Each revenue object class is to include the base fare, zone premiums, express service premiums, extra cost transfers, and quantity purchase discounts applicable to the passenger's ride. Also included is a category which covers park-and-ride revenue.

402 SPECIAL TRANSIT FARES
These categories cover revenues earned for rides given in regular transit service, but paid for by some organization than by the rider and for rides given along special routes for which revenue may be guaranteed by a beneficiary of the service.

403 SCHOOL BUS SERVICE REVENUES
This category covers revenue earned from operating vehicles under school bus contracts.

404 FREIGHT TARIFFS
This category covers revenues earned from carrying freight on runs whose primary purpose is passenger operations.

405 CHARTER SERVICE REVENUES
This category covers revenues earned from operating vehicles under charter contracts. This category includes all closed door service revenues except school bus.

406 AUXILIARY TRANSPORTATION REVENUES
These categories cover revenues earned from operations closely associated with the transportation operations.

407 NON-TRANSPORTATION REVENUES
These categories cover revenues earned from activities not associated with the provision of the transit system's transit service.

408 TAXES LEVIED DIRECTLY BY TRANSIT SYSTEM
These categories cover tax revenues to transit systems that are organized as independent political subdivisions with their own taxation authority. Revenues to transit systems that come from local, state, and federal government and has been raised through the taxing authority of grantor governmental unit, (which is not synonymous with the transit system), are covered in categories 409 through 412).

409 LOCAL CASH GRANTS AND REIMBURSEMENTS
These categories cover funds obtained from local governmental units to assist in paying the cost of operating transit services. (The local governmental units are those not synonymous with the transit system; revenues for these units are covered in category 408.) The breakdown of local governmental grants and reimbursements to the subcategories is to be based on the factor that determines the amount of the grant or reimbursement. Amounts originating from federal revenue sharing funds are included in these categories.

410 LOCAL SPECIAL FARE ASSISTANCE
These categories cover funds obtained from local governmental units to help cover the difference between full adult fares and special reduced fares. Amounts originating from federal revenue sharing funds are included in this category. Funds obtained from local government to assist in paying the cost of operating transit services are included in object class 409.

411 STATE CASH GRANTS AND REIMBURSEMENTS
These categories cover funds obtained from state government(s) to assist in paying the cost of operating transit services. The breakdown of the state government grants and reimbursements to the subcategories is to be based on the factor that determines the amount of the grant or reimbursement. Amounts originating from federal revenue sharing funds are included in this category.

412 STATE SPECIAL FARE ASSISTANCE
These categories cover funds obtained from state government(s) to help cover the difference between full adult fares and special reduced fares. Amounts originating from federal revenue sharing funds are included in this category. Funds obtained from state government(s) to assist in paying the cost of operating transit services are included in object class 411.

413 FEDERAL CASH GRANTS AND REIMBURSEMENTS
These categories cover funds obtained from the federal government to assist in paying the cost of operating transit services. The breakdown of federal government grants and reimbursements to the subcategories is to be based on the factor that determines the amount of the grant or reimbursement.

414 INTEREST INCOME
This category covers the receipt of interest earned on savings deposits, bonds, etc. (This does not include interest earned on funds acquired through special capital grants. The interest earned on capital grant funds are to be credited to the specific capital project.)

430 CONTRIBUTED SERVICES
This category covers the receipt of service (not cash) from another entity where such services benefit transit operations and the transit operator is under no obligation to pay for the services.

431 CONTRIBUTED CASH
This category covers the receipt of cash from another entity where the transit system has not provided any service to the donor.

440 SUBSIDY FROM OTHER SECTORS OF OPERATIONS
This category covers funds obtained from other sectors of a transit company's operations to help cover the cost of providing transit service.

Figure 7.2.5: Expense Classification Codes

501 LABOR

"Labor" is the pay and allowances due employees in exchange for the labor services they render in behalf of the transit system. It is necessary to distinguish the "Labor" allowances from the "Fringe Benefit" allowances. The "Labor" allowances includs payments direct to the employee arising from the performance of a piece of work, such as shift differentials, overtime presiums, minimum guarantees, etc. "Labor" also includes payroll withholding taxes. The "Fringe Benefit" allowances include payments direct to the employee, but not arising from the performance of a piece of work. The latter allowances include paid abeence for illness, holidays, vacations, jury duty, etc.

502 FRINGE BENEFITS

"Fringe Benefits" are payments or accruals to others (insurance companies, governments, etc.) on behalf of an employee and payments or accruals direct to an employee arising from something other than the performance of a piece of work. These payments are transit system costs over and above "Labor" costs, but still arising from the employment relationship.

503 SERVICES

"Service" is labor and other work provided by outside organizations for fees and related expenses. In most instances,service from an outside organization is procured as a substitute for in-house employee labor, except in the case of independent audits which could not be performed by employees in the first place. The substitution is usually made because the skills offered by the outside organization are needed for only a short period of time or are better than internally available skills. The charge for these services is usually based on the labor hours invested in performing the service.

504 MATERIALS AND SUPPLIES CONSUMED

Materials and Supplies are tangible products obtained from outside suppliers or manufactured internally. Freight-in, purchase discounts, cash discounts, sales taxes, and excise taxes are to be included in the cost of the material or supply. Charges to these expenses accounts will be for the materials and supplies issued from inventory for use and for the materials and supplies purchased for immediate use, i.e., without going through inventory.

505 UTILITIES

"Utilities" are payments made to various utilities for utilization of their resources (e.g., electric, gas, water, sewer, etc.).

506 CASUALTY AND LIABILITY COSTS

"Casualty and Liability Costs" includes cost elements covering:

- protection of the transit system from loss through insurance programs,
- compensation of others for their losses due to acts for which the transit system is liable, and
- recognition of the cost of a miscellaneous category of corporate losses.

The costs of repairing damaged property are recorded in labor, fringe benefit, material, and services object classes. The costs of writing off property damaged beyond repair are recorded in an object class for depreciation. The costs of transit system employees engaged in insuring and processing claims for and against the transit system are recorded in labor and fringe benefit object classes.

507 TAXES

"Taxes" are those taxes levied against the transit system by federal, state, and local governments. Sales and excise taxes on materials and services purchased other than fuel and lubricants are not included in this category, but are to be accounted for as part of the base price of the material or service. This does not include payroll withholding taxes.

508 PURCHASED TRANSPORTATION SERVICE

"Purchased Transportation Service" is the payment or accrual to other transit systems for providing transportation service.

509 MISCELLANEOUS EXPENSE

"Miscellaneous Expenses" are those expenses which cannot be attributed to any of the other major expense categories (i.e., 501-508 and 510-513).

511 INTEREST EXPENSE

"Interest Expense" are charges for the use of borrowed capital incurred by the transit system.

512 LEASE AND RENTALS

"Leases and Rentals" are payments for the use of capital assets not owned by the transit system.

Rent expense is an actual cost to the agency whether supported by direct billings or by a cost allocation plan.

513 DEPRECIATION AND AMORTIZATION

"Depreciation and Amortization" are charges that reflect the loss in service value of the transit system's assets.

530 CONTRIBUTED SERVICES - ALLOWABLE EXPENSE

The category covers the receipt of services (not cash) from another entity where such services benefit transit operations and the transit operator is under no obligation to pay for the services. The amount debited to this account should be equal to the amount credited to detailed account number 430.01.

550 INELIGIBLE EXPENSES

Those expenses that are not eligible for funding purposes should be recorded in this account. The specific expenses that are ineligible will vary by state.

F. Price/Fare Management

1. Introduction

Farebox revenues are an important part of local funding. Some transit systems receive annual funds by appropriation from the city or county budget. Others rely on a voter-approved property tax millage. Millages and budget appropriations provide a relatively stable funding base, but it is also important to build revenues from passenger fares, advertising, and human service agency contracts. Revenues generated directly from services emphasize the ability of a transit system to support its operations, and local taxpayers want to know that riders pay a reasonable share of system costs. As the budget policies of federal, state, and local governments change, transit systems have to make planning decisions about the contribution of fares to support transit services. Fare planning should produce a policy that will regulate fares consistently and provide a clear explanation of fare increases.

2. Structure and Policy

Fare policy relates the fares to the goals and future plans of the transit system. As an example of a fare policy, the charge to a regular adult passenger may be $1.00 because the transit system planners have decided that farebox revenues should pay for fifty percent of the total operating costs. With an established fare policy, the system manager will know when and how much to change fares. Also, the fare policy can be used to explain these changes to local governments and the public. People are willing to pay for good service. Charges above the regular base fare can be levied for extraordinary service. Moreover, if meaningful rider segments are discovered and special services developed to serve them, it should be possible to charge extra for these services. This method can maximize both service to the public and revenue to the transit operator. Fares should be:

- Simple and straight forward for both the operator and the rider. Fares should be easy to collect, requiring the fewest number of coins possible. For example, a twenty-five cent fare is good because most riders will be able to pay for it with a quarter. Fares of 22 cents, 27 cents, or 31 cents all require excessive change handling for both the driver and the rider. If transfers are used, they should be free or else payable with a single coin. Many transit agencies require an exact fare. The driver carries no change and the rider must have the exact fare to put into a locked farebox. This is inconvenient for the rider, but safeguards the driver against theft.

- Realistic for the operator and the user. The amount of the fare should reflect the objective of the agency in terms of maximization of revenues or ridership. The fares should not be so high as to discourage use, or so low as to be hopelessly uneconomical for the transit system. Fare policies should be reviewed periodically to see what effects they have had on ridership and revenues. If fares have been increased to generate a specific revenue recovery, but the higher fares have actually reduced ridership to such a level that the revenue recovery is below the targeted percentage, then an adjustment is needed.

- Standardized. Transit service should not be used as a welfare program, although good transit service may increase the general welfare of the community and cast transit in a favorable light politically. The transit agency itself should not subsidize certain citizens at the cost of others. The transit operation should receive the full, standard fare for a given service from all riders, however, the rider may not pay the full fare himself. The fare could be subsidized by a governmental agency. For example, the difference between a low school fare and the standard fare should be made up by the school district. Indigent citizens may receive cut-rate tokens or tickets from welfare or aid agencies, but the transit agency should be fully reimbursed at the standard token or ticket price.

- Relative to time and schedule. Fares should be based on the distance and time of day traveled. Peak hours are the highest cost times and fares should not be reduced at such times. If discounts are to be given, they should be available only during off-peak hours. Fares based on distance are complicated to collect. If a large area is served by a transit agency, a system of zone fares should be considered.

Note that promotional fares are used either to promote the general use of transit or to promote transit used for special purposes. Generally, such promotions use low, get acquainted fares for everyone. These fares are not intended as a subsidy to certain classes of patrons. Often, on the first day or week of operation of a new route or service, transit agencies offer free service to help acquaint people with it. Promotional fares should never be used where they will increase the cost of providing service while decreasing the revenues on a continuing basis. Promotional fares may be used in conjunction with some special event, such as a festival or the opening of a new shopping center. The transit firm should be reimbursed completely by the merchants or whoever benefits from the promotion. In some areas, downtown merchants have been known to hire the entire transit system to provide free service on the Sundays before Christmas.

When planning fare policy, a transit manager needs to develop broad policy goals in conjunction with community and local government advisors. Some broad policy goals of a transit agency may include:

- affordable, cost-effective public transportation

- reasonable fares for seniors and handicapped riders

- reduction of downtown parking problems and traffic congestion

- downtown economic development

These broad goals are used to generate specific fare policies that support the goals of the transit system.

3. Fare Collection

The actual act of collecting the fare is as much a part of the total pricing package as is the fare itself. Despite the progress toward more modern collection systems through the use of passes or credit cards, cash fares remain the most pervasive method of fare payment.

4. Cash Fares

Cash fares may be collected by hand, where all money is handled directly by the driver. However, the most common method of fare collection in the United States is through the farebox. Some fareboxes provide only a locked vault from which the driver cannot withdraw any money to make change. Other fareboxes contain counting devices that register the amount of money deposited and recirculate the change (in this case the driver still has access to the money). Other fareboxes are available that will register the fares deposited, but the money goes into a locked vault that is inaccessible to the driver. Many transit authorities are utilizing electronic fareboxes which provide a key pad where the driver may punch in codes to indicate types of riders (elderly, special fare, youth fare, token, ticket, etc.) These fareboxes usually sound a tone when the correct fare has been deposited. Some are equipped with a slot through which a prepaid pass may be passed through to register that a fare has been paid. Many transit operators have moved to an exact-fare plan under which the driver does not carry change. Persons without the exact fare are given a receipt, which they must take or send to a dispersing agent to receive their change.

5. Tickets and Tokens

The use of tickets and tokens is common in many parts of the country. Tickets and tokens are usually offered to the rider at a slight reduction in the price per ride. They offer two advantages for transit operators:

1) Money is collected in advance of the actual ride, which can improve the transit agency's cash flow position.
2) Faster loading of vehicles is possible because token and ticket users have the exact fare in hand.

A slight reduction in the price per ride for tokens or tickets may be justified since the rider's money is received before he uses the service.

6. Passes

Passes sold for a given time period, and permitting an unlimited number of rides, have not been used extensively in transit until recent years. As with tokens and tickets, the transit firm has the advantage of being able to use the rider's money in advance of the time he actually uses the service. In using a pass, the rider need not part with cash each time a trip is made. Because passes are usually shown to the driver rather than being punched or marked in any way, their use speeds loading and is one of the most efficient ways of collecting a fare. There are a number of types of passes including:

- Unconditional monthly passes which may be good for use at any time of the day, any day of the week.

- Peak-hour passes for the convenience of the riders during the loading process.

- Off-peak passes, which may offer a reduction from the standard fare, are used to encourage the use of transit during general slack times of patronage.

- Pass/cash combinations where the pass, purchased either on a weekly or a monthly basis, is used in conjunction with a cash fare, which is lower than the regular base fare.

- Daily passes that are good for one day only, and are usually priced at twice the regular fare.

7. Credit Card and Other Electronic Systems

Like passes, credit cards are attractive because they do not require a cash transaction at the time of the ride. Unlike the pass, however, a credit card fare collection system bills the charges after the act of travel, probably on a monthly basis. In use, the card would simply be inserted into a fare register, which would note that a ride was being taken by a particular patron. There are few, if any, conventional credit card systems in use at this time.

G. Fare Levels and Fare Calculation

Fare levels and fare calculation for small transit/demand responsive services are complex issues that can determine the success or failure of a transportation system. Fares that are set too low can result in large deficits from which an agency may not recover, while fares that are set too high will discourage ridership. Designing the appropriate fare structure is both an art and a science. Anticipated revenues, projected expenses, and estimated ridership add up to an unknown for a new system. It is best to be conservative in your calculations, ensuring that fares combined with other funding sources, will be high enough to cover the cost of service, even if demand turns out to be less than anticipated.

1. Types of Fare Structures

There are a variety of fare structures that can be used. They include:

Uniform Grid System - Grids, usually one to two mile square units, are superimposed on a map of the designated service area. A per passenger, per grid, per trip fare is designated; i.e., 90 cents per passenger, per grid, per one way trip. The smaller the grid, the closer the fare will be to the true cost of service. Fares are usually calculated by counting the number of grids from point of origin to point of destination.

The advantages of this method are that the agency or passenger is only charged for actual vehicle usage and the fare can be predetermined and indicated to the passenger at the time they call to schedule the trip. A disadvantage is that the provider is not reimbursed for dead miles (the non-revenue distance driven, without a passenger aboard, to get to the passenger origin or from the destination to the next origin). To account for this, dead mileage needs to be factored into the per grid rate that is set, or the number of grids should be calculated as a right angle movement from origin to destination.

An additional disadvantage is that, in a large system with many grid/zone locations, a complex grid-to-grid matrix will need to be developed to assist the operator in determining the fare to be charged. This process can, however, be computerized -- the fares being automatically generated upon entry of the origin and destination grids or zones.

Vehicle Mile Fare - A preset rate per mile is charged to each passenger, based upon odometer readings from point of origin to point of destination. This system works well for exclusive ride service or for group trips with a common origin and destination. It is not as appropriate in a shared ride situation since the passenger does not travel directly from origin to destination, but deviates to pick up or drop off other passengers. The first passenger on board may be the last dropped off and subject to the highest fare.

Another disadvantage of this method is that fares are determined by the driver, based upon the odometer readings, and cannot be conveyed to the passenger or at the time they call in to schedule the trip.

Uniform Geographic Boundary Zones - The service area is divided into zones along geographic boundaries such as a municipal line. A fare is set for travel within a zone, and for interzonal movements. The fares can easily be precalculated, and the system is easy to use if the number of zones is kept to a minimum.

The disadvantage of this methos is that, depending upon the size of the zones, there can be a fare inequity; i.e., two trips within a one zone area can vary in terms of the mileage and time involved, but would be charged at the same rate.

Standard Zones to Specific Points - This is similar to the uniform geographic boundary zones; i.e., there are predetermined zonal fares and, in addition, there are fares that are set to key destinations outside of the basic zone system.

Area-wide Flat Fares - One single fare is charged for all service. This is a very simple method to administer, however, it has the disadvantage of potential inequities similar to the zone systems previously described. It is useful in small urban areas where most of the trips are of a similar distance.

Area-wide Trip Type Fares - similar to the above, but fares are adjusted for group trips and shared ride.

2. Reimbursement Rates for Subcontracted Service

The number of systems that broker or subcontract service to private carriers rather than provide services directly has grown rapidly over the last several years as a result of UMTA encouragement to involve the private sector in public transportation. Generally, the broker purchases services from a provider at less than the general public rate due to volume purchasing. In some systems, vehicles secured through state and federal funding streams are leased to the provider at a nominal fee, thus further reducing the cost of service. Some brokerage systems contract with both the private sector and with public agencies for service provision.

In addition to calculating a passenger fare, the broker must also establish a reimbursement rate to the provider. This rate is generally established through the competitive bid process, or through negotiations. In either case, there are several methods that can be used to purchase service from a subcontractor, either public or private. These include:

Cost Per Passenger Trip - This method requires the least amount of work for the integrated system, and the least amount of monitoring. This method is usually used in systems where trip lengths are fairly uniform and where carriers, through contract provisions, are guaranteed a certain number of trips per day, week or month. Unless some guarantee of service can be given to the providers, this method will not result in a competitive cost per trip.

Cost Per Vehicle Hour - This method is favored by carriers since it guarantees them a certain number of vehicles will be placed into service each day. Under this system, there is no incentive for carriers to ensure that vehicle utilization remains high; unless some standards for efficiency are built into the contractual agreement. The agency must closely monitor the scheduling and dispatching process.

Cost Per Live Vehicle Hour - This unit costing method is similar to the above, but the purchasing agency only pays for service when a passenger is on-board.

Cost Per Vehicle Mile - This method purchases service based upon the number of miles that a vehicle travels. Effective grouping of passengers can result in very low per passenger fares. The system must be carefully monitored in the scheduling and dispatching process.

Cost Per Passenger Mile - This method is based upon a charge for each mile that an individual passenger travels. There is a strong incentive for the provider to group passengers but, depending upon the contractual arrangements, this grouping may not translate into cost savings for the agency.

Remember -- regardless of the method used to purchase services, the competitive bid process encourages competition and ensures that services are provided as cost efficiently as possible. More information on contracting for services is included in Chapter VIII.

APPENDIX CHAPTER VII

- Worksheet #1 - Accounting Hardware and Operating System Requirements
- Worksheet #2 - Microcomputer Software Selection Checklist (General)
- Worksheet #3 - Microcomputer Software Selection Checklist (General Ledger)
- Worksheet #4 - Microcomputer Software Selection Checklist (Accounts Receivable)
- Worksheet #5 - Microcomputer Software Selection Checklist (Accounts Payable)
- Section 18 Budget Forms

WORK SHEET # 1 ACCOUNTING HARDWARE AND OPERATING SYSTEM REQUIREMENTS

Software Package	Vendor Name Phone number	Integrated Applications Available	Operating System(s)	Hardware
Example: Open Systems Accounting Software (OSAS)	Open Systems, Inc. 1-800-328-2276	General Ledger Accounts Receivable Accounts Payable Payroll Inventory Report Writer	MS DOS, Unix/ Xenix, PC DOS, Novell LAN, 3 COM 3+	Altos System V. 3/386 Altos 286/386 machines IBM AT and compatibles AT&T Unix System V. 3/386 IBM PS/2 and compatibles

WORK SHEET #2

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

GENERAL

Package: _____
Hardware: _____

			comments
EASE OF USE			
Menu driven	Yes [ ]	No [ ]	_____
Menu selections understandable	Yes [ ]	No [ ]	_____
Formatted input screens	Yes [ ]	No [ ]	_____
On-line help	Yes [ ]	No [ ]	_____
Error messages understandable	Yes [ ]	No [ ]	_____
EXPANDABILITY			
Pre-defined limits	Yes [ ]	No [ ]	_____
Reconfigure without losing data	Yes [ ]	No [ ]	_____
SECURITY AND CONTROL			
By system	Yes [ ]	No [ ]	_____
By program	Yes [ ]	No [ ]	_____
Data	Yes [ ]	No [ ]	_____
Password	Yes [ ]	No [ ]	_____
Balancing	Yes [ ]	No [ ]	_____
Program sequence (run to run)	Yes [ ]	No [ ]	_____
DOCUMENTATION			
Complete	Yes [ ]	No [ ]	_____
Concise	Yes [ ]	No [ ]	_____
Well organized	Yes [ ]	No [ ]	_____
Table of contents	Yes [ ]	No [ ]	_____
Index	Yes [ ]	No [ ]	_____
Step by step instructions	Yes [ ]	No [ ]	_____
Comprehensive illustrations	Yes [ ]	No [ ]	_____
Understandable English	Yes [ ]	No [ ]	_____
Error message descriptions	Yes [ ]	No [ ]	_____
Trouble shooting section	Yes [ ]	No [ ]	_____
VENDOR REPUTATION			
Reliability	Yes [ ]	No [ ]	_____
Recommendations	Yes [ ]	No [ ]	_____
Number of copies sold	_____		_____
Years in business	_____		_____

Excerpted from "A Review of Accounting Software for Transit"; prepared for the Urban Mass Transportation Administration, Peat, Marwick, Mitchell & Company, February 1986; UMTA-DC-06-0499-86-1.

WORK SHEET #2 (Cont'd)

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

GENERAL

Package: _____
Hardware: _____

			comments
TRAINING AND SUPPORT			
Training program offered	Yes [ ]	No [ ]	_____
Tutorial disks	Yes [ ]	No [ ]	_____
Hotline	Yes [ ]	No [ ]	_____
Maintenance service	Yes [ ]	No [ ]	_____
Source code available	Yes [ ]	No [ ]	_____

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WORK SHEET #3

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

GENERAL LEDGER

Package: _____

Hardware: _____

		comments
ACCOUNT IDENTIFICATION		
*User-defined accounts	Yes [ ] No [ ]	_____
*Number of characters (8)	_____	_____
*Number of accounts (200-800)	_____	_____
Alphanumeric	Yes [ ] No [ ]	_____
Non-financial accounts	Yes [ ] No [ ]	_____
Subsidiary accounts	Yes [ ] No [ ]	_____
Department accounts	Yes [ ] No [ ]	_____
Multiple ledgers	Yes [ ] No [ ]	_____
ACCOUNTING PERIODS		
*Number per year (12-13)	_____	_____
*User-defined fiscal year	Yes [ ] No [ ]	_____
*Year-to-date balances	Yes [ ] No [ ]	_____
*Multiple open periods	Yes [ ] No [ ]	_____
Multiple year accounts	Yes [ ] No [ ]	_____
REPORTS		
*Trial balance	Yes [ ] No [ ]	_____
*Balance sheet	Yes [ ] No [ ]	_____
*Income statement	Yes [ ] No [ ]	_____
*Transaction detail	Yes [ ] No [ ]	_____
*User-defined	Yes [ ] No [ ]	_____
Prior year comparison	Yes [ ] No [ ]	_____
Budget comparison	Yes [ ] No [ ]	_____
Report by department	Yes [ ] No [ ]	_____
Chart of accounts listing	Yes [ ] No [ ]	_____
Preview report on screen	Yes [ ] No [ ]	_____
On-line balance inquiry	Yes [ ] No [ ]	_____
Prior year-to-date balances	Yes [ ] No [ ]	_____
Prior year period balances	Yes [ ] No [ ]	_____
Budget amounts by period	Yes [ ] No [ ]	_____
OTHER		
*Balance control	Yes [ ] No [ ]	_____
*Field edit	Yes [ ] No [ ]	_____
*Number of transactions (500-800)	_____	_____

* - Required ( ) - minimum volume

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MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

GENERAL LEDGER

Package: _____
Hardware: _____

		comments
OTHER (continued)		
*Amount field size (10 million)	_____	_____
Integration with:		
Accounts Payable	Yes [ ] No [ ]	_____
Accounts Receivable	Yes [ ] No [ ]	_____
Payroll	Yes [ ] No [ ]	_____
Spreadsheet	Yes [ ] No [ ]	_____
Fixed Assets	Yes [ ] No [ ]	_____
Auto-recurring entries	Yes [ ] No [ ]	_____
Auto-reversing entries	Yes [ ] No [ ]	_____

* - Required

( ) - minimum volume

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WORK SHEET #4

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

ACCOUNTS RECEIVABLE

Package: _____
Hardware: _____

		comments
TYPE		
Open Item/Balance Forward	OI [ ] BF [ ]	_____
CUSTOMER FILE		
*Number of characters (6-10)	_____	_____
Alphanumeric	Yes [ ] No [ ]	_____
*Number of customers (200-500)	_____	_____
On-line inquiry	Yes [ ] No [ ]	_____
TRANSACTION TYPES		
*Payment	Yes [ ] No [ ]	_____
*Partial payment	Yes [ ] No [ ]	_____
*Overpayment	Yes [ ] No [ ]	_____
Credit memo	Yes [ ] No [ ]	_____
Adjustments	Yes [ ] No [ ]	_____
Miscellaneous cash	Yes [ ] No [ ]	_____
G/L DISTRIBUTION		
*Account distribution	_____	_____
REPORTS		
*Aged accounts receivable	Yes [ ] No [ ]	_____
- by due date	Yes [ ] No [ ]	_____
- by invoice date	Yes [ ] No [ ]	_____
*Invoices	Yes [ ] No [ ]	_____
*Account statements	Yes [ ] No [ ]	_____
Invoice reprint	Yes [ ] No [ ]	_____
Delinquency notices	Yes [ ] No [ ]	_____
*Cash receipts journal	Yes [ ] No [ ]	_____
*Customer list	Yes [ ] No [ ]	_____
Mailing labels	Yes [ ] No [ ]	_____
Preview on screen	Yes [ ] No [ ]	_____

* - required ( ) - minimum volume

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WORK SHEET #4 (Cont'd)

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

ACCOUNTS RECEIVABLE

Package: _____

Hardware: _____

OTHER FEATURES		comments
*Number of transactions (500-1000)	_____	_____
Purchase order field size	_____	_____
Credit limit check	Yes [ ] No [ ]	_____
Calculate/post discounts	Yes [ ] No [ ]	_____
Calculate/post late payment	Yes [ ] No [ ]	_____
Recurring invoices	Yes [ ] No [ ]	_____
Balance control	Yes [ ] No [ ]	_____
Field edit	Yes [ ] No [ ]	_____
Integration with G/L	Yes [ ] No [ ]	_____

* - required ( ) - minimum volume

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WORK SHEET #5

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

ACCOUNTS PAYABLE

Package: _____
Hardware: _____

		comments
PAYMENT SCHEDULING		
*Discount date tracking	Yes [ ] No [ ]	_____
*Due date tracking	Yes [ ] No [ ]	_____
*Vendor file	Yes [ ] No [ ]	_____
*Voucher deferral	Yes [ ] No [ ]	_____
PAYMENT SELECTION		
*Automatic selection		
- all vouchers	Yes [ ] No [ ]	_____
- by discount date	Yes [ ] No [ ]	_____
- by due date	Yes [ ] No [ ]	_____
- by vendor	Yes [ ] No [ ]	_____
*Manual override to hold	Yes [ ] No [ ]	_____
*Manual payment	Yes [ ] No [ ]	_____
PAYMENT CALCULATION		
*Automatic calculation using discount	Yes [ ] No [ ]	_____
Based on vendor terms	Yes [ ] No [ ]	_____
*Manual override for partial payment	Yes [ ] No [ ]	_____
TRANSACTION TYPES		
Payment	Yes [ ] No [ ]	_____
Partial payment	Yes [ ] No [ ]	_____
Debit memo	Yes [ ] No [ ]	_____
Credit memo	Yes [ ] No [ ]	_____
Prepayment	Yes [ ] No [ ]	_____
Void	Yes [ ] No [ ]	_____
G/L DISTRIBUTION		
*Number of accounts (1 per voucher line)	_____	_____
CHECK PRINTING		
*Vendor Checks	Yes [ ] No [ ]	_____
Check reprint	Yes [ ] No [ ]	_____

* - required ( ) - minimum volume

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WORK SHEET #5 (Cont'd)

MICROCOMPUTER SOFTWARE SELECTION CHECKLIST

ACCOUNTS PAYABLE

Package: _____
Hardware: _____

		comments
REPORTS		
*Open invoice by vendor	Yes [ ] No [ ]	_____
*Open invoice by due date	Yes [ ] No [ ]	_____
*Cash requirements	Yes [ ] No [ ]	_____
*Check register	Yes [ ] No [ ]	_____
*Vendor list	Yes [ ] No [ ]	_____
*Transaction detail	Yes [ ] No [ ]	_____
1099 forms	Yes [ ] No [ ]	_____
Preview on screen	Yes [ ] No [ ]	_____
VENDOR FILE		
*Number of characters (6-10)	_____	_____
Alphanumeric	Yes [ ] No [ ]	_____
*Number of vendors (300-1000)	_____	_____
On-line inquiry	Yes [ ] No [ ]	_____
OTHER		
Invoice field size (12-16)	_____	_____
P.O. field size (6)	_____	_____
Number of transactions (500-1000)	_____	_____
Field edit	Yes [ ] No [ ]	_____
Balance control	Yes [ ] No [ ]	_____
Check reconciliation	Yes [ ] No [ ]	_____
Recurring payment	Yes [ ] No [ ]	_____
Integrated with:		
General ledger	Yes [ ] No [ ]	_____
Purchase order	Yes [ ] No [ ]	_____

* - required ( ) - minimum volume

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NAME OF APPLICANT _____

NM-18-X008

TRANSPORTATION BUDGET
CAPITAL

LINE 1 -

CAPITAL		Current Year 1990	Proposed 1991
** Item Description			
_____		$ _____	$ _____
_____		$ _____	$ _____
_____		$ _____	$ _____
_____		$ _____	$ _____
LINE 1 SUBTOTAL	(1)	$ _____	$ _____

LINE 2 -

LOCAL SHARE SOURCES: (Specify)			
_____		$ _____	$ _____
_____		$ _____	$ _____
_____		$ _____	$ _____
_____		$ _____	$ _____
LINE 2 SUBTOTAL	(2)	$ _____	$ _____
* LINE 3 - **LOCAL SHARE** (at least 20% of LINE 1)	(3)	$ _____	$ _____
LINE 4 - **FEDERAL SHARE** (no more than 80% of LINE 1)	(4)	$ _____	$ _____

* The local share must be in the form of cash.

** All capital items must be listed individually.

NAME OF APPLICANT _____

NM-18-X008

TRANSPORTATION BUDGET
ADMINISTRATION

LINE 1 -

ADMINISTRATION	Current Year 1990	Proposed 1991
Insurance	$ _____	$ _____
Space Rental	_____	_____
Postage	_____	_____
Advertisement	_____	_____
Office Supplies	_____	_____
Utilities	_____	_____
Salaries/Title/%		
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
Fringe Benefits	_____	_____
Audit	_____	_____
Dues and Subscriptions	_____	_____
Training	_____	_____
Other (specify)	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
LINE 1 SUBTOTAL (1)	$ _____	(1) $ _____

LINE 2 -

LOCAL SHARE SOURCES: (Specify)		
_____	$ _____	$ _____
_____	_____	_____
_____	_____	_____
LINE 2 SUBTOTAL (2)	$ _____	(2) $ _____

* LINE 3 - **LOCAL SHARE** (At least 35% of LINE 1)	(3) $ _____	(3) $ _____
LINE 4 - **FEDERAL SHARE** (No more than 65% of LINE 1)	(4) $ _____	(4) $ _____

* Part of the local share may be in-kind contributions. (Attach an in-kind schedule if such is to be used)

NAME OF APPLICANT _____

NM-18-X008
TRANSPORTATION BUDGET
OPERATING

LINE 1 -

A. ELIGIBLE OPERATING COSTS

	Current Year 1990	Proposed 1991
Fuel	$	$
Oil and Lubricant		
Replacement Parts		
Tires		
Maintenance Costs		
License Fees		
Audit		
Vehicle Insurance		
Space Rental		
Postage		
Advertisements		
Printing		
Training		
Supplies		
Utilities		
Driver's Salaries		
Dispatcher's Salary		
Other Salaries (Specify)		
_____		
_____		
Fringe Benefits		
Other (Specify)		
_____		
_____		
_____		
LINE 1 TOTAL ELIGIBLE OPERATING COSTS	(1) $	(1) $

B. LINE 2 - REVENUES

(Fares, Donations, Delivery Service, 3rd party contracts) (Specify)		
_____		
_____		
_____		
LINE 2 SUBTOTAL	(2) $	(2) $

C. LINE 3 - NET OPERATING COSTS

Subtract LINE 2 from LINE 1	(3) $	(3) $
LOCAL SHARE SOURCES: (Specify)		
_____		
_____		
_____		

D. LINE 4 - **LOCAL SHARE** TOTAL
(At least 50% of LINE 3) (4) $ _____ (4) $ _____

E. LINE 5 - **FEDERAL SHARE** TOTAL
(No more than 50% of LINE 3) (5) $ _____ (5) $ _____

PROJECTED BUDGET SUMMARY FOR NM-18-X008

	Non-Operating Capital	Non-Operating Administration	Operating	TOTAL
Revenues	xxxxxxxxxx	xxxxxxxxxx	_____	_____
Local Share	_____	_____	_____	_____
Federal Share	_____	_____	_____	_____
TOTAL	$ _____	$ _____	$ _____	$ _____
		Non-Capital		

PROJECT SUMMARY STATISTICS

	Current (1989-90)	+	Increase expected in (1990-91)	=	Total expected in 1990-91	
Annual Ridership	_____		_____		_____	(1)
Annual Mileage	_____		_____		_____	(2)
Annual Vehicle Service Hours	_____		_____		_____	(3)
Annual Fare Receipts	_____		_____		_____	(4)
Total Non-Capital Costs (Administration plus Operating Costs)					_____	(5)
Administration as a percent of non-capital costs (Administration divided by #5 above)					_____	(6)
Farebox Recovery Ratio (#4 divided by #5)					_____	(7)
Cost per passenger trip (#5 divided by #1)					_____	(8)
Cost per mile (#5 divided by #2)					_____	(9)
Cost per vehicle service hour (#5 divided by #3)					_____	(10)
Federal Share of Non-Capital Costs (Federal share of Administration plus Federal share of Operations)					_____	(11)
Federal cost per passenger trip (#11 divided by #1)					_____	(12)
Federal cost per mile (#11 divided by #2)					_____	(13)
Federal cost per vehicle service hour (#11 divided by #3)					_____	(14)

Chapter VIII. OPERATIONS

A. Introduction

Operating policies and procedures directly affect all aspects of service provision, and largely determine the success or failure of the transit system. This chapter provides a description of key operating policies and procedures which can impact costs and financing.

B. Federal and State Regulations

The goal of New Mexico's Section 18 program is to encourage and assist in the provision of needed transit services for the general public in the rural areas and small communities in the state of New Mexico. It is not the state's intention to create demand for public transit in areas where it is non-essential, but to relieve the isolation of New Mexico's rural and small urban area residents and improve their access to essential services.

In order to achieve the goal, the program is aimed at the following objectives:

- All approved projects must provide access for people in non-urbanized areas to health care, shopping, education, employment, public services, other essential services, and recreation trips throughout the contract period.

- The NMSHTD will assist in the development and/or improvement of public transportation systems in rural and small urban areas within funding constraints throughout the funding year.

- The NMSHTD will encourage and facilitate the efficient use of all non-federal and federal funds used to provide passenger transportation in non-urbanized areas through the coordination of programs and services throughout the funding year.

- All approved projects must provide for the participation of private transportation providers in non-urbanized transportation services to the maximum extent feasible throughout the contract period.

Underlying policies which support the program goal and objectives are:

- Transportation services must be open to the general public at all times during operations.

- Transportation services must be fully advertised as public transportation.

- Transportation services must charge fares of all riders in order to recover a portion of the costs of providing services. Funds made available under Section 18 are to be used to supplement rather than replace existing transportation resources.

- Transportation projects must exhibit either a well-planned project and stable funding sources (if a new recipient) or a well-managed project and stable funding sources (if requesting a continuation of funding).

- Projects must not compete unfairly with private or public transportation services in existence. Rather, they are to coordinate services which make the most efficient use of the federal funding.

1. Eligible Program Recipients

Eligible recipients of Section 18 funding include state agencies, local public bodies and agencies thereof, private-nonprofit organizations, Indian Tribes and groups, and operators of public transportation services in non-urbanized, rural, and small urban areas. Private for-profit operators of transit services may participate in the program through contracts with eligible recipients.

2. Eligible Program Expenses

Under the Section 18 program, three types of transportation expenses may be reimbursed:

a). Capital Expenses - include the acquisition, construction, and improvement of public transit facilities and equipment needed for an efficient and coordinated public transportation system. The federal share of eligible facilities and equipment shall not exceed 80% of the net capital cost.

b). Operating Expenses - are considered to be those costs directly related to system operations such as driver, mechanic, and dispatcher salaries and fringes; fuel and oil; non-capital replacement parts and maintenance; replacement tires; vehicle insurance and licenses. The federal share of net operating expenses may not exceed 50%.

c). Administrative Expenses - include such items as g&a and overhead costs such as salaries and fringes for administrative personnel, office supplies, rent, certain insurance, travel expense, audit costs, marketing, and advertising. The federal share of administrative costs will not exceed 65% of total administrative costs.

The remaining local share; 20% capital, 35% administrative, and 50% operating, must be from non-UMTA sources of funding and can include any local or unrestricted federal funds. At least half of the local share for both net operating and administrative expenses must be provided in cash or cash equivalent from sources other than unrestricted federal funds; i.e., fares, local appropriations, dedicated tax revenues, and approved in-kind services. The other half may be made up of unrestricted funds from other federal programs if so authorized by that program. The entire local match for capital costs must be in cash.

3. Major Federal and State Requirements

Recipients of Section 18 funding are required to meet various federal and state requirements as outlined below.

a). Private Enterprise Program - requires every applicant as part of the funding application process to explore and evaluate the local opportunities for private sector involvement.

b). Notice of Public Hearing - requires every applicant to hold public hearings, if requested in writing by interested parties, subsequent to public notice of intent to apply for public transportation funds.

c). Local Government Support - requires each applicant to obtain a letter or resolution from local municipal authorities stating their position toward the proposed Section 18 project.

d). Labor Protection Provisions [13(c) Certification] - requires arrangements to protect the interests of transit provider employees who might be effected by the proposed Section 18 project.

e). Section 504 Program Requirements - requires certification that service and employment opportunities exist for the elderly and handicapped in reasonable comparison to opportunities for the general public.

f). Disadvantaged Business Enterprise - requires affirmative steps to ensure maximum opportunity for DBE participation in the Section 18 program as providers of transportation or suppliers of commodities or services. At least 10% of Section 18 funds must go to DBE businesses.

g). Equal Opportunity Employment and Affirmative Action - requires compliance with all applicable state and federal laws, regulations, and executive orders relating to equal opportunity employment and affirmative action.

h). Charter and School Bus Operation Requirements - states that charter services using federally funded vehicles or facilities is prohibited if there is at least one private operator willing and able to provide the charter service. Charter services are not eligible for Section 18 reimbursement. School bus operations in competition with private school bus operations are prohibited.

i). Anti-Drug Program - UMTA drug testing regulations, as proposed, were struck down by The Federal Circuit Court of Appeals in January of 1990. Properties will be kept informed of any changes by their state Section 18 program representative.

j). Certificate of Public Convenience and Necessity - requires projects, under certain circumstances to obtain a certificate of public convenience and necessity from the New Mexico State Corporation Commission. Additional information may be obtained by contacting the Commission at (505) 827-4500.

k). Protection of the Environment - requires impact statements for projects involving construction and potential on-site or off-site impacts such as transit malls, terminals, and certain storage and maintenance facilities.

l). Buy America - regulates the purchase of steel products and manufactured equipment not produced in the United States.

m). Safety Jurisdiction - permits UMTA to withhold funds from any grantee who fails to correct any condition found by UMTA to create a serious hazard of death or injury.

n). New Model Bus Testing - states that any new bus models must be tested at an UMTA sponsored test facility before funds can be expended to purchase them.

o). Preaward and Postdelivery Audit of Bus Purchases - provides for independent inspection and auditing of the purchase of buses and other rolling stock.

p). Grant Administration and Eligible Costs - as with all federal grant programs, recipients must comply with the following Office of Management and Budget Circulars and Presidential Executive Order 12372:

APPLICABLE CIRCULAR	RECIPIENT TYPE	
	State, Local & Tribal Governments	Non-Profit Organizations
OMB-Circular A-102: Uniform Administrative Requirements for Grants-In-Aid to State and Local Governments	X	
OMB-Circular A-110: Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations		X
Executive Order 12372: Intergovernmental Review of Federal Programs	X	X
OMB Circular A-87: Cost Principles Applicable to Grants and Contracts with State and Local Governments	X	
OMB Circular A-122: Cost Principles for Non-Profit Organizations		X
OMB Circular A-128: Audits of State and Local Governments	X	

q). Contracts - each grant recipient is required to enter into a contract with the New Mexico State Highway and Transportation Department.

r). Operations Profile - is a comprehensive systems operation plan required of each recipient which is used as a contracting and management tool by state program administrators. Any changes to the original plan must be submitted in writing to the Department for approval. Federal Procurement Law - equipment purchases made through the State Purchasing Department will be made in conformance with this regulation. Purchases made otherwise are subject to the bid process.

s). Insurance - requires the recipient to maintain in amount and form satisfactory to the NMSHTD, such liability, comprehensive, collision, and uninsured motorist insurance as will be adequate to protect the project equipment throughout the period of required use. The Department will be named as "Additional Insured" and "Loss Payee" on the insurance policies covering project equipment on which the Department holds the lien. A Certificate of Insurance shall be filed with the Department.

t). Lien of Project Equipment - requires the Department to hold a lien on vehicles (passenger cars, vans, and station wagons) purchased using Section 18 funds for at least a period of six years and/or 100,000 miles. UMTA will retain the lien on all other vehicles such as transit buses.

u). Subcontract - written approval must be obtained from the NMSHTD prior to subcontracting with a third party. Subcontractors are subject to all responsibilities outlined in the contract between the recipient and the Department.

v). Retention of Records - recipient must maintain all pertinent records pertaining to costs incurred on the Project for three years from the date of final payment of reimbursable expenses or until the final resolution of audit questions, whichever is longer.

w). Audit - grantees shall ensure that the project is audited annually pursuant to OMB Circular 128 or 110 following the close of the grantee fiscal year. Audit expenses are reimbursable as an administrative expense under the Section 18 program.

C. Management, Organization, and Personnel

Eligible recipients of Section 18 funds vary from state to state, depending upon the guidelines established through individual State Management Plans. In most states, application for funding must come from or through a public body (or Indian tribe) or with its formal concurrence. In the state of New Mexico, eligible recipients include state agencies, local public bodies, i.e., counties and municipalities and agencies thereof, private non-profit organizations, Indian tribe organizations, and operators of public transportation services. Private for-profit operators of transit services may participate in the program through subcontract to an eligible recipient. In all

instances, the transportation services must be to the general public, not solely for the elderly, handicapped, agency clients, or a specific client group or type.

Examples of nationwide organizations that are providers of Section 18 transportation service include local government and tribal units, Community Action Programs, Retired Senior Volunteer Programs, American Red Cross Agencies, YMCA, Chambers of Commerce, transit authorities, medical facilities, senior activity centers, volunteer organizations, private transportation companies, etc.

Typically, Section 18 service providers are involved in a variety of client services, transportation being one. In addition to transportation, services may include day care, senior center activities, congregate meal programs, health care, counseling, recreational activities, information and referral, municipal services, etc. Because of these multiple agency activities, job classifications and responsibilities are often shared. A program director may, for example, be responsible for coordination of several different program components. A trip reservationist may also function as a program aide, and the driver of a vehicle as a recreational therapist. It is rare, in the Section 18 program, to find a provider whose sole function is transportation.

In reference to staffing, the characteristics of the program, (e.g., the number of trips, complexity of the client base, size of the service area, etc.) will determine the number of staff necessary to administer and operate the transportation service. Specific tasks that need to be considered in determining staff size include:

- Grants application and program planning.
- Client screening and eligibility determination.
- Trip reservation.
- Vehicle routing and scheduling.
- Vehicle/equipment purchase and vehicle maintenance.
- Insurance, risk management, and training.
- Reporting and budget/accounting process.
- Program/service monitoring process.
- Public relations and marketing.
- Contracting.
- Service provision.

As previously stated in smaller systems, one person may perform several of the above tasks, or one job function may be accomplished by several part time employees who have functions in addition to transportation. In general, a program should have sufficient trained personnel to handle the various functions required to

provide safe, efficient service, taking into consideration illness, vacation time, and a reasonable turnover rate.

Chapter VIII Worksheet 1 titled "Estimation of Staff Size by Job Function" and Worksheet 2 titled "Job Function Summaries" have been included in the Chapter VIII Appendix. These will be helpful in estimating the number and type of staff that will be required for your transportation program. The job functions that are listed are suggested minimums, and will change (increase or decrease) depending upon individual situations. The staff type required can be categorized in general terms such as administrative, supervisory, technical, clerical, etc. In estimating the number of hours per month required for each job function in a new system, it may be necessary to complete one worksheet for a start-up period and a second worksheet for on-going program needs. Completion of the worksheet for an established program will assist in identifying those areas that are understaffed or overstaffed, areas where staff is insufficient to accomplish the task, and areas where overqualified staff are being used to accomplish a task requiring less qualified staff.

D. Procedures

An operating plan must be developed that addresses all aspects of program operation. The plan should include a description of service characteristics, procedures for various functions involving passenger interaction, scheduling and dispatching of vehicles, reporting/record keeping, and fare collection or cash handling procedures. More specifically --

1. Service Characteristics

Staff must be familiar with service characteristics to properly schedule trips and relay correct information to clients and potential clients. These characteristics, which are a function of area demand and available funding, include:

- Geographic area of coverage.
- Route and schedule descriptions.
- Days and hours transportation service is available.
- Client reservation and trip scheduling procedures.
- Office hours, telephone numbers, etc.
- Fare schedule.
- Service restrictions.

This information should be summarized in the form of a program brochure for distribution to users and potential users of the system. An example of a brochure used in the Washington County, Pennsylvania, shared-ride program has been included in the Client Registration Kit found in the back cover pocket of this Guidebook.

2. Client Screening and Eligibility Determination

Section 18 transportation service is primarily for the general public, and does not necessarily require pre-screening or eligibility determination. In some instances, reduced fares are offered to certain population groups; (e.g., elderly, disabled, agency sponsored, etc.) and some form of preregistration or eligibility determination is required. Some demand response systems find that client pre-registration, regardless of whether the client is general public or special group, is useful and increases efficiency during the trip reservation process.

Pertinent client information can be recorded manually using, for example, an alphabetized card file, or maintained as a computerized database. A sample computerized client record is included in the Chapter VIII Appendix, and a sample client registration form has been included in the Client Registration Kit. Client records can contain information such as name, address, phone number, emergency contact, and physician information. It is also important to maintain special client needs (e.g., wheelchair use, blind, walker used, needs an escort, etc.). Instant access to this type information will assist the trip reservationist and the driver in determining and responding to individual client needs.

Once a client has been determined eligible for service, a program identification card can be issued. The card should be carried by the client and presented to the vehicle driver. It also serves as a reminder of procedures; e.g., phone number and times to call for trip scheduling, client identification number assigned, etc. A sample identification card and program telephone number reminder are included in the Client Registration Kit.

3. Trip Reservation Process

In a fixed route or deviated fixed route system, the trip reservation process may be as simple as flagging a driver to stop, or waiting at a predetermined bus stop for the bus to arrive. The procedures for a "dial-a-ride" or demand response service are more complex.

There are three basic methods that an agency can use to schedule dial-a-ride service:

- Call and Demand - the client is guaranteed pickup within a reasonable time frame (usually 30 minutes) of their call for service.

- Advance Reservation - the client is required to call in advance (usually 24-48 hours) of their desired pickup time.

- Combination - advance reservation trips are guaranteed, trips that are called in for same day service are accommodated if possible, but are not guaranteed.

The efficiencies to be gained through advance reservation and client grouping are considerable and more than offset any additional time required, and any inconvenience to the client.

Typically, in an advance reservation system, trip requests are taken up until a set time of day, at which time all trips that have been requested for the following day are grouped according to pickup time, trip origin, and trip destination, and assigned accordingly to the appropriate vehicle or route.

Origins and destinations are usually defined as an aereal unit; (e.g., traffic zone, census tract, x/y map coordinate etc.), and trip requests within similar time periods are grouped with other trip requests from the same or nearby origin or destination zones.

Clients may be asked to slightly vary their pickup or return time in order to more effectively group trips, and some clients may be asked to shift nonessential trip types to another time of day or day of the week that is more appropriate in terms of vehicle availability. Every effort should be made to accommodate as many trips as possible, and to reduce the number of turn downs and call backs required.

The trip reservation process, like client screening, may be a manual or computerized operation. A sample Trip Request Log for manual operation and a sample computerized Trip Request Record have been included in the Chapter VIII Appendix. When using a computerized reservation process, all pertinent information from the computerized client record is automatically transferred to the trip record resulting in considerable time savings for the reservationist.

Additional information such as pickup-dropoff-return times, destination, and day of service must be entered into the computerized system at run time.

4. Trip Scheduling Process

Trip scheduling and dispatching can be a manual, computer assisted, or fully automated process. In most Section 18 programs, the process is manual or computer assisted. The fully automated scheduling process is only applicable in larger systems. More information relative to trip scheduling follows.

a). Manual Trip Scheduling

There are a number of methods that have been developed to manually schedule trips to available vehicles. Manual scheduling can be a time consuming process, and requires considerable knowledge of the local area and characteristics of the client base. The scheduler reviews the reservation list for the following day,

arranges trips in pickup order, groups similar origin to destination movements, fits in other appropriate trips on a space available basis, and assigns trips to the appropriate size and type of vehicle -- making every effort to reduce dead or non-revenue time.

Usually, repeat or subscription trips; i.e. individual riders or groups traveling from the same origin to the same destination on a regular or frequently recurring basis, are scheduled onto the vehicles followed by other priority trips such as medical or agency sponsored. Care must be taken, however, to ensure availability to the general public. For this reason, some agencies schedule trips on a first come, first served basis and disregard prioritization by trip type or purpose.

Once the vehicle and driver assignments are complete, the information is transferred to a trip roster, which is distributed to each driver. A sample trip roster or driver log is included in the Chapter VIII Appendix. Other trips may be dispatched directly to the driver while on the road. These "will call" trips are usually returns from medical appointments and other destinations where a predetermined return time is difficult to schedule. Systems with a high percentage of "will call" or non-prescheduled trips must schedule vehicles accordingly, leaving a greater percentage of dead or non-revenue time that may or may not be utilized. In order to attain maximum efficiency, it is advisable to limit the number of "will call" trips.

b). Computer Assisted Trip Scheduling

There are a number of software packages that provide a computer assisted, trip scheduling capability. Each requires varying degrees of human interaction, however, a computerized client and trip database can be very beneficial to the scheduler. It assists in reducing the amount of time and paperwork required to schedule trips, and helps maximize vehicle productivity. The automated trip scheduling process can provide advantages such as:

- Preassignment of clients to a particular vehicle or run.
- Printed, ordered listing of trips; e.g., pickup time, trip origin, trip purpose, etc.
- On screen editing and vehicle assignment capability.
- Automatic fare calculation.
- Automatic generation of trip tickets or completed trip rosters including all pertinent client data, trip information, fare to be collected, etc.
- Remote processing or automatic distribution of trip rosters to a remote site service provider.
- Automatic geocoding of trip origin and destination.

A sample computerized Trip Ticket and computerized Vehicle Roster are included in the Chapter VIII Appendix.

c). Fully Automated Trip Routing and Scheduling

Fully automated trip routing and scheduling is a new process. In this type system, the computer software automatically schedules all trips based upon trip information input during the trip reservation process, scheduling parameters preset by the agency, available vehicle types and capacities, and a computerized description of the local transportation network.

Although some degree of human interaction is still required, these fully automated systems hold the promise of saving agencies considerable time and money.

The decision as to whether this type system has application for your program can be determined by examining the amount of time currently spent on the trip scheduling process, the level of vehicle productivity, and overall trip volume. It is generally recommended that small to medium size agencies first consider implementation of computer assisted scheduling, rather than fully automated scheduling.

5. Complaint Procedures

The level of passenger complaints is a direct reflection of the quality of service that is being provided by the system. A high level of complaints generally means a real or perceived problem with service quality. Accurate recording and tracking of service complaints will assist the provider in recognizing areas of weakness and making timely corrections.

Obviously, the best method of handling complaints is to minimize their occurrence. Those complaints that are received must be:

- Accurately recorded and categorized.
- Investigated and responded to in a timely manner.
- Acted upon to reduce the possibility of recurrence.
- Used as a learning experience.

It is important that staff be trained to handle complaints in a polite but firm manner, to listen carefully, and record pertinent facts accurately. It is also important to investigate complaints promptly and thoroughly, and to gain sufficient information to make objective decisions relative to their resolution.

A sample form for use in recording complaint information is included in the Chapter VIII Appendix.

6. "No-Show" Procedures

The *no-show* category can, if not closely monitored, become an area of program abuse, not only by the client but also by the service provider. The factors contributing to a *no-show* situation may be as simple as a lack of communication, for example, the client is ready and waiting at the side door while the vehicle is sitting at the front entrance. A more complex problem is the driver who pulls up three doors away from the building, blows the horn twice, and then drives on. These situations can be corrected by providing the driver with specific information to make the pickup, and by implementing procedures that assure the driver is making every effort to locate and transport the client in question.

One method of ensuring that drivers are conscientious in their efforts to fulfill trip obligations is to require them to post a *no-show* notice on the door to the client's residence. This requires the driver to double check trip instructions, and to knock on the door of the residence as the notice is delivered. It also serves as notification to the client that they have been charged with a *no-show* trip. A sample *no-show* notice is included in the Chapter VIII Appendix.

In some instances, a client becomes a frequent no show due to confusion and memory problems. This is unintentional, and often quite embarrassing for the client. To assist this type client to keep scheduled trips and appointments, a listing of the trips that they have scheduled for the week or the month can be mailed directly to the client. This is particularly appropriate in a computerized system, where the list can be automatically generated.

Another effective method of eliminating the habitual *no-show* problem, especially in a radio dispatched system, is to have the program office call the client on the telephone immediately prior to the arrival of the vehicle. If the client is not at home, or declines the service, the driver can be called on the radio, and the trip cancelled.

The system may elect to charge a nominal penalty to a client that is an habitual no show to discourage future occurrences. The client can be informed by letter that due to the number of no show occurrences, a penalty amount of $xx.xx must be paid before any additional trips will be scheduled. This should only occur after direct contact with the client has failed to resolve the problem.

7. Cash Handling Procedures

There are two basic methods of handling the fare collection process; cash payments to the driver or prepaid script in lieu of cash. Each system has advantages and disadvantages.

If cash payments are made directly to the vehicle driver, the driver must be supplied with sufficient advance information to determine the exact fare that is due from each passenger. In systems that have variable fares (based upon passenger miles, zones traveled, or trip type rather than flat or uniform fares) the process can

become complicated, and the amount due must be clearly indicated on the driver log. The total amount collected must be reconciled with the driver log information on a daily basis.

Drivers may be reluctant to carry anything over a minimal amount of cash on board the vehicle, and must be provided with a lock box or appropriate fare collection receptacle. Program policy should dictate that only the exact fare will be accepted to eliminate the time and inconvenience of having the driver calculate the correct change due.

A system of prepaid script eliminates the problems inherent with the handling of cash. Tickets, tokens, or script may be purchased in advance from the service provider or an approved provider agent, or may be distributed by agencies that are sponsoring client trips. The driver records the amount of tickets, tokens, or script accepted, and reconciles this with the amounts indicated on the driver logs.

Agencies and, in some systems, clients may receive a monthly invoice for the total amount of tickets, tokens, or script that they have used instead of paying in advance. Tokens have the advantage of being reusable and easily counted. Tickets and script are not reusable, but are less expensive to purchase initially, and can be printed in different denominations for use with a variable fare structure.

E. Reporting

Detailed reporting and recordkeeping is an essential element of any paratransit program. Passenger, vehicle, service, and financial information must be accurately maintained to provide an appropriate level of service, assess service productivity and effectiveness, and comply with funding requirements. This process can be manual, computerized, or some combination of both. Regardless of the method used, it is essential that procedures are implemented to ensure that necessary information is being accurately tracked and recorded.

It is important to keep the recordkeeping process as simple and streamlined as possible. Only data that is useful to the agency or is required by the funding sources should be maintained. Do not ask for data that will never be used, and avoid duplication of effort, if possible.

1. Passenger Information

Certain information relative to the characteristics of the local client base should be maintained to validate the service being provided:

- Total number of passengers utilizing the service.
- Geographic and demographic distribution of those passengers.
- Number of wheelchair and other special needs type passengers.

- Number of passengers per service type and funding source.

- Common destinations requested.

Accurate tracking of this type information will assist the agency in making decisions concerning service changes, direction of a marketing effort, program effectiveness, and equipment needs.

2. Vehicle Information

Tracking vehicle information will assist in assessing vehicle replacement and back-up needs, and suitability of the current fleet in meeting service demand.

Fleet information that should be maintained for each vehicle includes; vehicle type, model, title, plate and serial numbers, purchase price and date, warranty details, odometer readings, and fuel type.

An up to date summary of total miles driven, fluids consumption, repair and labor costs, preventive maintenance performed, tire usage, and other operational characteristics should also be maintained.

Again, this information can be maintained as a manual or computerized operation. Those agencies with larger fleets should consider purchasing a computerized vehicle maintenance information system to assist in the tracking of vehicle information.

3. Service Information

Service efficiency and service quality are system characteristics that can be measured by collecting performance data either on a regular or a sample basis. A comparison of this data with that of a previous similar period, or with another agency of similar characteristics, will identify significant changes or differences (positive or negative) in system wide performance. Examples of performance measures include:

a). <u>Cost efficiency</u>

- Cost per passenger trip - total operating cost divided by total number of passengers.

- Cost per vehicle mile - total operating cost divided by total system vehicle miles.

- Cost per vehicle hour - total operating cost divided by total system vehicle hours.

- Farebox recovery ratio - annual fare receipts divided by total operating costs.

- Cost per revenue mile or hour - total operating cost divided by the total live (at least one passenger was on board) time or mileage.

- Revenue/non-revenue mile or hour ratio - percentage of non-revenue or dead miles or hours to live miles or hours of service.

b). Service effectiveness

- Time on board - total passenger time divided by total number of passengers.

- On time performance - percentage of trips in which the actual pickup or return time falls within an acceptable range of the scheduled pickup or return time.

- Accidents/incidents per vehicle mile of service - annual vehicle mileage divided by the number of accidents or incidents that have occurred.

- Complaints per vehicle mile of service - annual vehicle mileage divided by the number of complaints received.

- Average trip length - total passenger miles divided by the number of passengers.

4. Financial Information

Grantees who receive funds under the UMTA Section 18 program are required to submit three different types of monthly reports.

a). Financial Reimbursement Requests - Grantees are supplied with financial accounting forms which separate operating and administrative costs. Expenses and revenues must be reported to the Department on a monthly basis in the form of a reimbursement request. Supporting back-up documentation as prescribed by the Department must accompany the reimbursement request. Reimbursement requests for operating and administrative funds are due by the 10th of each month.

b). Disadvantaged Business Enterprise Reporting (DBE) - Grantees are required to keep accurate records of contracting opportunities with disadvantaged enterprises. Monthly reports are due at the time monthly reimbursement requests are submitted. New subrecipients are supplied with complete instructions regarding the DBE program.

c). Operations Data - Grantees are expected to keep an accurate accounting of their service provisions. Records for each vehicle regarding total service hours, mileage, costs, revenues, and numbers and types of passengers served must be maintained. The process used to collect daily and weekly statistics is the responsibility of the grantees, although the Department will

supply examples of forms which may be used. Data must be compiled and submitted to the Department on a monthly basis using Form D according to a prescribed format along with the reimbursement request and DBE report.

On a quarterly basis, grantees must combine systems operation and accounting data to compute a series of efficiency and effectiveness measures. The format of this report is prescribed by the Department. Also required on a quarterly basis is a vehicle certification form which describes the vehicles which are currently in use.

A copy of each of these required Section 18 reports is included in the Chapter VIII Appendix.

- Monthly Summary of Trip Statistics
- Monthly Administrative Assistance Invoice
- Monthly Operating Assistance Invoice
- Monthly Disadvantaged Business Enterprise Program Worksheet
- UMTA Section 18 Quarterly Report
- Quarterly UMTA Section 18 Vehicle Certification

The New Mexico State Highway and Transportation Department has developed a Lotus 1-2-3 spreadsheet application that can assist providers in the preparation of some of these required Section 18 reports. Further information is available by contacting your state program representative.

F. Risk Management

Risk management, or loss control, is the process of planning, organizing, directing, and controlling the resources and activities of an organization to minimize the adverse effect of accidental losses on that organization and keep those losses to the least possible cost. Most people think of insurance when they think of risk management, but insurance is only one component of a successful loss control program.

A proper risk management program is organization-wide, involving a number of functional areas: management, finance, operations, and personnel. All are commonly bound through one underlying concept - safety.

- The **management** function is to promote and support safe practices throughout the organization to minimize normal (or anticipated) and, to the extent possible, catastrophic (or unexpected) losses.
- The **financial** role of risk management entails the analysis of options available to pay for potential loss and the recommendation of the alternative which makes best use of the organization's financial resources, without compromising.

- The role of **operations** is to analyze, develop, and implement safe practice policies and procedures for each facet of the organization's operation.

- The **personnel** function involves risk management through developing and supporting sound, safe standards for employee hiring, training, performance evaluation and medical benefits.

Developing a systematic approach to safety and risk management is essential to effectively handle loss. A six step process, as described below, is recommended.

1. Decide on Basic Policy and Goals for Safety

In any process, the establishment of goals and objectives is a necessary first step. Policy and goals for safety should be formulated and supported as high in the organizational structure as possible.

In developing internal procedures to organize safety, you will want to:

- Financially protect the transit system against accidental losses

- Protect the safety of employees, patrons, and the general public

- Effect maximum control of losses

- Operate your internal safety program with maximum efficiency and effectiveness

- Assign high priority to safety expenses in your budget process, and fund these expenses consistently

- Consult manuals on risk management and safety on a frequent basis

2. Identify, Analyze, and Measure Specific Risks, Hazards, and Perils

An important element of managing risks internally is the development of what might be called a risk profile. In this profile, you identify, either formally or informally, recorded or not:

- Where and how are your passengers subjected to injury?

- In what areas are you subject to risk of financial loss?

- What kind of responsibility and activity do you have in these various areas of risks?

- What is the financial impact of these outlined risks?

The best source of information for a risk profile is your transit system's loss experience for the last five years. Often referred to as "loss runs," this information is available by contacting your specific local insurance agent or broker.

Upon completion of regular loss run reviews, you will be able to ascertain historically the types of accidents to which your system is prone. From this information, you can begin to draw conclusions about the types of incidents you should be most mindful of when establishing your bus safety priorities.

System loss runs seldom provide the complete picture. There are additional areas within your entire operation which should be reviewed to make certain you are addressing all exposures, not just those related directly to vehicle operations.

Third Party Liability is one of the more unpredictable coverages in which to calculate exposure. In general, if you have the responsibility to perform an activity or service, you are also exposed to liability in that area.

Liability potential among transit systems is strongly influenced by increased medical and property repair costs, by the general tendency of higher plaintiff awards, and by the increased willingness of the public to bring cases to suit, especially against transit systems who suffer at times from the general knowledge that they are usually adequately insured.

Once the areas of risk are outlined and analyzed according to frequency and severity, the risks that your organization faces must be translated into a measurable form as demonstrated in Figure 1. Each exposure to possible loss can be categorized according to the frequency and the severity of the occurrence. Frequency means how often a particular loss occurs. Severity refers to the amount of damage that loss incurs. Frequency and severity have four possibilities of combination; each configuration has an insurance implication.

Figure 1 - FREQUENCY/SEVERITY MATRIX

1. High Frequency/High Severity
This category indicates a need for protective measures both in insurance and in safety. Workers' Compensation is a typical exposure of this type. Alternatives are transfer to an insurance carrier or self-insurance. An excess policy would necessarily be purchased for protection against severe loss if a self-insurance program is instituted.

2. High Frequency/Low Severity
In a bus system, this may be the numerous fender-bender accidents. Generally, this is an exposure that can be managed using self-insurance. However, attention should be paid to the cumulative effect of events in this category. Their total may be a drain on company resources. There may be patterns of loss that announce themselves as candidates for loss control.

3. Low Frequency/High Severity
Examples of this exposure are the typical property perils: fire, flood, earthquake. In a transit system, this may be the infrequent, very severe accident. Transit units cannot easily absorb losses associated with these exposures. Transfer to an insurance carrier is the logical treatment.

4. Low Frequency/Low Severity
This class of exposure presents no significant risk, and losses should be retained by the transit system, not insured.

In measuring risks, it may be helpful to think of losses in two categories. Many organizations now use "maximum loss" and "probable maximum loss" estimates for the total losses that can arise from a single occurrence.

- *Maximum Loss* is the greatest conceivable loss assuming the failure of all preventive mechanisms.

- *Probable Maximum Loss* is defined as the worst loss to be expected under "average" conditions assuming that most, if not all, control mechanisms and procedures operate efficiently.

Management should identify the sources of greatest financial impact. On property exposures (note: property refers to buses and equipment as well as structures) replacement or actual cash values should be assigned to all items with values checked every two years (property valuation is a service provided at no cost to you by your insurer). This should include objective replacement cost valuations, loss of income or earnings, and additional expenses resulting from damages to vehicles or other holdings. With respect to Liability and Workers' Compensation coverage, loss run reviews of frequency and severity may be used to predict the dollar loss potential.

The end result of the "risk profile" based on loss data from the past five years should be an outline of the property's "normal" losses, and illustration of trends.

3. Make a Decision to Avoid, Reduce, Control, Assume, or Transfer Specific Risks, Hazards, or Perils

With the risk profile completed and dollar amounts of probable loss formulated, it is time for decision making. Strategies for managing risk fall into five categories. Consider one, or a combination, for each of the exposures you have outlined.

- *Risk Elimination*: means what it says, that is, not getting involved with the risk. This may mean contracting a service to a private provider, hold harmless agreements, or dropping an element of service that creates burdensome exposure of loss.

- *Risk Reduction*: reducing the number of opportunities for a given risk to occur. An example of risk reduction is revising work patterns to reduce repetitive tasks that are hazardous.

- *Loss Control*: reducing both the frequency and the severity of accident occurrence. It requires a thorough look at the existing safety and loss control program, often followed by an upgrading of training, procedures, and enforcement.

- *Risk Assumption*: the knowledgeable willingness to assume the financial implications of having a loss. Some types and amounts of loss are unavoidable. For some types of loss, it is not worth trading dollars with the insurance company for coverage. Frequency/severity ratings and past loss experience usually give some clue to these areas. Approaches to risk assumption include use of deductibles, retentions, and self-insurance.

- *Risk Transfer*: is most often the purchase of commercial insurance, though hold harmless agreements can also effect the "transfer" of risk. The insurer pays losses to the stated amount under the policy conditions. This option can be used for loss amounts deemed unaffordable by the transit system and for excess coverage on all exposures.

4 Develop and Implement Proper Foresight and Hindsight Techniques

a). <u>Foresight Techniques</u>

- Employee Selection
- Employee Testing
- Employee Training
- Employee Evaluation
- Vehicle Design
- Preventive Maintenance
- Facility Safety
- Routing, Scheduling, and Bus Stop Placement

b). Hindsight Techniques

- Accident Investigation
- Safety and Accident Review Committees
- Judging of Accidents

Effective loss prevention and control are the best long term methods of improving safety in operations. This effort may require an investment of time and money, but if done properly, can save enormous and incalculable amounts over just a few short years.

An effective loss control program consisting of proper foresight and hindsight techniques supports and reinforces existing risk management activities and will work to provide responsible levels of insurance coverage at a fair price as the result of favorable loss histories.

5 Review Support Systems

In managing risk, transit properties will become involved in activities in which they were only marginally involved in the past or that were performed for them by their insurance companies. A systematic approach to risk evaluation means that these areas must become internal concerns. Support programs which develop new relevance under a risk management program are:

- claims processing
- legal services (for claims adjusting and the evaluation of legal liability)
- compilation
- manipulation and analysis of data
- safety areas (which may have been handled totally under maintenance interests, previously)

In addition, transit management should, whenever possible, pursue contact with safety and risk management related organizations such as:

- APTA Committee on Bus Safety
- The National Safety Council
- The United Bus Owners of America's "First Team" for Safety
- The American Bus Association
- Your insurance carrier or other protection consultant

6 Collect and Analyze Data

A proper insurance program will generate its own data. Information on exposures, control or elimination of hazards, safety statistics, claims, losses, costing, financial resources, and fiscal status will be available and must be collected during the on-going process of insurance program evaluation. Some of this information will provide an important profile for other aspects of organizational decision making. Expansion into new areas of service, capital expenditures, and employee benefit policies are all areas in which effective risk management may be an aid.

Periodic analysis is a part of the process. Any analysis should measure the program's effectiveness and, from time to time formulate new and tighter objectives for your insurance program. A review is necessary and important to spot trends, keep a close control on exposures, and to constantly reevaluate each step of the process.

In addition to the information available from internal sources, transit system management should consult their insurance carrier for loss run information. As data is collected and analyzed, transit managers should compare their system's performance with established goals and objectives to determine if the Risk Management Program is improving. By doing so, management is ensuring a continued improvement in safety performance as they continue to refine the treatment of certain risks, which should result in steadily improving loss histories.

G. Insurance

Throughout the nation transit systems of all sizes have been faced with severe insurance problems. Low levels of coverage have become increasingly expensive; excess layers have shown sharp cost increases and inflationary trends. Some insurance companies can and do cancel their transit coverages, leaving transit systems to scurry for coverage in an ever-diminishing market and/or to assume the risks themselves.

One solution to this insurance situation that transit systems have employed is to assume some of the risk of potential loss themselves. Risk assumption may be accomplished through a number of means:

- *Deductibles*: The insured pays a stated initial portion of claims. This may range from $100 to $100,000.

- *Self-Insured Retentions (SIR)*: The insured assumes a reasonable loss level and pays the insurance company a percentage above losses for administration of the policy.

- *Self-Insurance*: The transit system assumes, and internally provides for, potential loss.

- *Pooling*: An agreement among a group of entities, such as transit systems, to jointly fund each other's losses. Members make contributions to the pool, which in turn pays losses.

- *Non-insurance*: The transit property assumes the risk of loss, but provides no mechanism to fund those losses. Losses are paid from the operating budget.

The following discussion summarizes the key exposures and types of insurance coverage which transit properties should consider.

1. Automobile Liability

Automobile liability insurance is very important to public transportation systems since it covers liability for the operations of buses and automobiles.

- *Basic* policies include vehicles that are owned or leased by the transit system and cover bodily injury and property damage. Non-owned vehicles, such as vehicles owned by employees that are used on transit system business, may not be included in the basic policy unless added by endorsement.

- *Comprehensive* policies include the ownership, maintenance, or use of any owned, leased or non-owned vehicle.

Coverage for physical damage to vehicles is often provided by endorsement to both basic and comprehensive automobile liability insurance policies. Many transit systems do not purchase uninsured motorist or medical payment coverage to avoid claims. State legislation generally determines whether uninsured motorists coverage must be purchased.

Some of the common exclusions found in automobile liability insurance policies include:

- liability assumed under contract;
- liability generated by worker's compensation laws; and
- injuries to employees caused by fellow employees.

2. General Liability

General liability insurance provides protection for legal liability for bodily injury and property damage from the ownership, maintenance and use of premises and performance of operations. This type of insurance may be purchased under a number of different forms including: Garage Liability (GL), Owners, Landlords and Tenants (OLT), Business Owners Policy (BOP), Manufacturers and Contractors (MC), and Commercial General Liability policy (CGL). The MC and OLT policies are generally more limited than the BOP and CGL policies.

Transit systems should carefully review individual policies to ensure that the terms and conditions it needs are met. General liability policies cover different exposures and should not be presumed to be comparable. Often an exposure included in one policy may need to be added by endorsement to another. For example, the following exposures are frequently added by endorsement: explosion, collapse and underground property damage, fire legal, garage keepers legal, and personal injury liability.

3. Miscellaneous Liability

As suggested above, a number of liability exposures that may be important to a transit system may not be included in a general liability insurance policy. Consequently, separate policies or endorsements must be attained. Two examples of such miscellaneous exposures are:

- *Public Officials Errors and Omissions*: This type of insurance is also called directors and officers liability. It covers a director or public servant for alleged wrongful acts, errors, omissions, misstatements, neglect or breach of duties in claims or suits. It does not apply to dishonest, fraudulent or malicious acts. It is intended to cover what some have called "administrative malpractice" for claims brought against governing boards by a transit system employee. Covered are claimed wrongful termination, unlawful discrimination in establishing bus routes and not following bid procedures. Although some states have passed provisions to immunize public board members against liability or restrict liability, insurance may be important to a transit system.

- *Professional Liability*: This insurance covers liability arising from providing professional advice and related services. For transit systems that direct senior staff to provide professional or management advice to other (perhaps smaller) systems on technical issues (e.g., routes, fare schedules, etc.) a liability exposure may result, especially if done under a formal contract for compensation. A special policy must be procured to cover this exposure.

4. Property

Property insurance provides for the replacement or repair of damaged real and personal property and may cover resulting costs (extra expense) or loss of revenues (business interruption). The policies are typically divided into two parts to address the property insured and the perils insured against.

- *Property insured* - coverage may be obtained with specific limits on scheduled properties or a blanket limit for all locations. Blanket coverage which states "all real and personal property" is preferred because it reduces the chance that a limit is understated or that a location is not listed.

- *Perils insured* - generally includes fire and related damage such as smoke and water damage, debris removal, and lightning. Other perils may be included or may be added by endorsement such as civil commotion, hail, explosion, riot, flood, and earthquake. The need for coverage for these perils varies with the location of the transit system. So-called "all risk" coverage is preferred to "named perils" forms.

Policies may be purchased to cover the actual cash value or replacement value. This means that the property may be valued based on the original cost minus depreciation or based on today's cost for in-kind replacement. Most buildings must be insured for a stated (co-insurance) percentage of their value or the loss recovery is reduced.

5. Crime

Crime insurance provides protection from loss of money, securities, and property due to dishonest acts of employees and non-employees. Two options for structuring crime insurance are:

- *Monoline policies* - a fidelity bond for employees and one or more policies for non-employees. The fidelity bond protects the transit system from theft. The bonding company has the right to recover its loss from embezzlement and similar criminal acts of employees from the employee or official and attach their assets. Robbery, burglary and depositors forgery policies are among the types of crime insurance purchased to protect against these type of crimes perpetrated by outsiders.

- *Package* - policies are sometimes called 3-D or blanket crime policies. The 3-D policy allows selection from a number of limits and coverages such as employee dishonesty, loss of money and securities, depositors forgery, and money order and counterfeit paper currency. The blanket crime policy covers all of the same crimes with a single blanket limit.

Differences in crime policies exist regarding whether they are per employee or per loss regardless of the number of employees. Consequently, policies must be carefully checked before they are purchased.

6. Workers' Compensation

All states have laws that require employers to pay the pertinent medical bills and wage loss benefits to employees injured in the course of employment. The benefits, which vary by state and are detailed in schedules, obligate the employer to pay; 1) medical, surgical, and hospital related costs; 2) compensation for lost wages; and 3) specified disability and death lump sums benefits. Many programs include some method of vocational rehabilitation so that a permanently disabled worker may return to wage-earning employment.

Workers' compensation benefits may be paid directly by the employer through self-insurance or through insurance which is written by three types of carriers: agencies-writing companies, direct-writing companies, and state funds. Self-insurance for public agencies is permitted for all states except North Dakota and Wyoming. States qualify and often approve individual self-insurance programs. Because workers' compensation claims have traditionally been predictable and moderate compared to liability claims, most transit systems self-insure for workers' compensation benefits.

H. Training

Training is an extremely important part of any paratransit or transit program. An effective training program must include driver training to ensure passenger safety, staff training to ensure that clients are handled in an efficient, firm, yet sensitive manner, and client training in program procedures and "how to access the system". A variety of training programs and resources are available to assist in this respect.

1. *Driver Training*

Driver training is the single most important tool that transit management has available to improve a system's operational efficiency, image, and risk management. Vehicle operators are the first and often the only personal contact that passengers have with the transportation system. As such, vehicle operators must be trained to practice the agency's policies and procedures with regard to vehicle operations, defensive driving, passenger assistance techniques, fare handling, record keeping, public relations, radio use, and emergency and accident procedures.

An orientation to the agency's policies and procedures is essential, as well as orientation to the specific equipment involved and the geographic area to be covered. Drivers must know what is expected of them and how they are to meet those expectations. Driver training can instill a sense of pride and professionalism in drivers that will be reflected in the attitude toward, and handling of, the passenger. A driver that provides reliable, expert service in a courteous and patient manner will result in increased ridership and good public image. Too often drivers are placed in revenue service without proper training or orientation resulting in greater incidence of passenger injury, inefficient operations, negative public image, disgruntled employees, and/or greater exposure to liability suits.

Vehicles used in the provision of paratransit and transit services are longer, wider, and heavier than passenger cars. As such, drivers must learn new driving skills to account for these changes. A larger vehicle provides a better view of the road, but has slower acceleration, wider turning radius, and a longer stopping distance. Drivers must develop good driving habits that result in the safe, smooth operation of the vehicle while in motion and at stops.

Operators should be familiar with the vehicles they operate and the effect that their driving habits have on the vehicle. Drivers who are aware of the vehicle's operating characteristics and alter their driving habits accordingly may reduce wear and tear on vehicles and the associated costs, in addition to providing a more comfortable ride for the passengers on board.

Drivers must be knowledgeable of the system fare structure, transfer procedures, etc., to avoid errors in fare collection. Agency rules regarding correct change, cash handling, free rides, and required passenger identification must be explained to ensure that maximum revenue is generated and the opportunity for fraud by passengers and/or drivers is minimized.

Drivers must be aware of the importance of the records they are asked to complete and the level of accuracy that is required. Driver reports that are completed correctly can minimize the level of administrative effort required to complete system reports.

Emergency and accident handling procedures are necessary to guide drivers' actions when the unexpected happens. A driver that has been trained in the proper procedures will be better able to handle emergency situations with composure and maintain control of the situation. The result may be avoidance or minimizing of injury and/or vehicle damage, greater protection from excessive

liability claims and minimizing of negative public relations. Some important components of a comprehensive driver training program, especially when dealing with the elderly and disabled, include defensive driving skills, CPR, first aid, passenger assistance techniques, and sensitivity training.

Drivers should be evaluated in both a "class room" and "behind the wheel" setting. Pre-employment screening, driver physical, and driver retraining on a periodic basis are also important. The operation of paratransit and bus rodeos, on a local or statewide basis, are an interesting and effective way of promoting good driver skills and providing an opportunity for drivers to display these skills in a competitive situation.

State program guidelines for the Section 18 service providers state that recipients must ensure that all drivers of vehicles used in the programs are trained in first aid, CPR, and defensive driving. This training must be completed and trainees certified within six (6) months of the effective date of the contract. Proof of such training will be required.

2. Employee Training

Employee training would include job skills training and an orientation to the agency's policies and procedures, including work rules and disciplinary codes. The defining of these issues will minimize confrontations and promote good management/employee relations. It is possible to initiate a driver/employee incentive program that rewards safe driving and good customer relations.

Sensitivity training is an extremely important part of an employee training program, even more so when dealing with the special needs of the elderly and disabled client groups. Sensitivity training combined with interpersonal communication skills will ensure that clients, even the most difficult ones, are handled in a courteous, patient, and yet firm manner, and that office personnel understand and are sensitive to the varying and often complex needs of this group.

3. Client Training

Client training is another essential component in structuring a comprehensive training program. The clients need to be familiar with the program regulations and guidelines. Clients need to know how to access the system, and what can be expected in terms of the type and level of service.

This can be accomplished by developing a concise, easy to use program guide and also by having program staff available for presentations and speaking engagements for community groups and agencies.

4. Training Resources

There are a variety of resources that are available to assist programs in their training efforts. A list of national resources for information and training, as reprinted from the Community Transportation Reporter's January 1990 issue, is included in the Chapter VIII Appendix. Some key resources include:

a). Rural Transit Assistance Program (RTAP) is an UMTA funded nationwide technical assistance program that focuses on training issues. RTAP funding is also allocated to each state for the development of training materials and courses. The following are examples of the type of materials that have been developed:

- *Understanding the Capabilities and Needs of Special Passengers* assists employees in effectively and safely serving elderly and disabled passengers. Program designed to help community transportation system's employees to become more sensitive to passengers with special needs. Includes manuals, video tapes, and audio tapes.

- *Substance Abuse Awareness in Rural Transit* alerts, informs, and prepares employees to meet the foremost challenge facing the transit industry. For drivers, mechanics and other transit personnel who have safety related responsibilities. Includes manuals, video tape, and audio tapes.

- *Management and Productivity Skills (Maps)* is a program that helps transit/management people identify and resolve problems in their organizations. Includes manual, workbook, audio tapes, and video tape.

- *Productivity and Supervisory Skills (Pass)* is a program to help supervisors develop and maximize supervisory and productivity skills. Includes manuals, video tape, and audio tape.

- *Special Transit and Rural Transit Driver Training Program (Starts)* is a program that addresses the recommended procedures for dealing with passengers that ride on special transit and rural transit systems. Includes manual, video tape, and audio tape.

- *Missouri Driver Training Program* is a nine-part, two-hour tape on various aspects of drivers' responsibilities - how to handle different types of passengers, discipline problems, safety, techniques, attitudes, etc.

- *Bus Safety Program* is a school bus safety program for elementary students that includes activity sheets, teachers manual, and video tape.

For additional information on the national RTAP program, call the RTAP hotline (800) 527-8279 or for information on the local RTAP program call your State Section 18 representative.

b). Public Private Transportation Network (PPTN) is an UMTA funded program that provides free technical assistance to public and private transportation policymakers, operators, and others interested in enhancing transit efficiency and effectiveness through participation of the private sector in the planning, financing and provision of transit services. PPTN assistance is available in the form of technical materials as well as direct, hands-on support.

Assistance is provided through site visits, presentations at work shops and conferences, and through self-help technical materials. PPTN calls on knowledgeable experts from the public and private sectors to provide short-term, one-on-one consulting assistance in the areas of contracting, innovative financing, cost analysis, etc.

For additional information on the PPTN program call (800) 522-PPTN.

c). Passenger Assistance Techniques (PAT) is a two day training course for vehicle operators of systems that are transporting the elderly and handicapped. The program, developed and operated by Transportation Management Associates, includes both classroom and hands-on training sessions, and is conducted at the training center in Dallas, Texas or by special arrangement at the local level.

For further information on the PAT course call (817) 293-6801.

d). University of Wisconsin, Division of Outreach and Continuing Education Statewide Transportation Programs offers a variety of training and technical assistance courses for the transportation industry.

For further information on these "train-the-trainer" programs call (414) 229-4890.

e). CTAA Training and Professional Development is a component of the national RTAP program that provides peer-to-peer technical assistance in all areas of management and operation of transportation programs. Additionally, the CTAA News and the Community Transportation Reporter are monthly publications that focus on improving rural transportation.

For additional information on CTAA call (202) 628-1480.

f). American Red Cross offers first aid and CPR training, and is an excellent resource at the local level.

g). Bell Telephone or the local equivalent, in most areas, will provide training courses on proper telephone techniques and courtesy. This can be an excellent resource for training office staff and reservation clerks.

h). Insurance agents, state or local police departments, or local fire departments are often involved in or can recommend courses in defensive driving, winter driving, seat belt and infant car seat use, and other safety related issues.

I. Contracting for Service

From the early 1960's through the late 70's and early 80's, the state-of-the-transit-art was consolidation; the government would ensure that the right services would be provided in the correct quantities. Governments not only managed the service, they usually provided it with public employees.

Now rapidly increasing costs and government regulations are forcing public transit providers across the nation to evaluate the services they provide and the alternatives available to them. A popular option these days is to contract with private vendors for service provision as well as for peripheral transit needs. Unlike former private operations, however, most transit agencies today maintain strict control over their contract providers and retain the basic planning and overall management functions.

The term "competitive contracting" has become commonplace in the last several years. A host of national, state and local factors have created budgetary pressures at all government levels, while changing demographics have created new needs. Public transportation has not been isolated from these pressures; indeed it has often been most subject to them. Local governments are often struggling to maintain existing services and meet the demands of new constituencies, while funding has decreased or remained stable. Transit has often been one of the first services to be subject to funding reductions, which sometimes result in reductions of important services. Federal transit subsidies, in fact, have declined some 35 percent in real terms since 1983.

In 1984, the Urban Mass Transportation Administration (UMTA) promulgated rules regarding inclusion of the private sector in public transportation to the maximum possible extent, and many local transit agencies have found that by utilizing private resources, existing funds can yield additional and higher quality services. Competitive contracting is a management tool which, when properly and openly exercised, may enable local governments to better supply and manage public transportation services. It is not a return to the days of a private monopoly, rather it is a systematized examination of the current public transit monopoly in a constructive manner.

Competitive contracting includes many techniques, including innovative financing (joint development, private contributions to public projects, transit subsidies, etc.), new institutional arrangements, private participation in the public planning process, and many other forms. In short, it is the application of sound business principles to public policy. While business principles often concentrate on bottom line cost, other 'softer' benefits are also possible through competitive procurement. These qualitative issues include service identity, quality control, etc. that may be equally or, in some cases, more important than costs on the local level.

The first section presents an overview of the competitive contracting concept and outlines several general approaches to competitive contracting. Section two is a discussion of the potential barriers to competitive procurement. The final section provides a discussion of major issues related to transit service contracting.

1. Provision Of Services Under Contract

Contractual procurement of services is perhaps the most common application of competitive contracting in the provision of public transportation. It encompasses the private provision of defined services under public contract, usually entailing public

subsidy to defray deficits. This application assumes that public management policy is to allow the public sector to choose which services to provide, but the most beneficial means to actually provide the services is employed.

Public managers make this choice, in reality a basic "make or buy" decision, regularly for a vast number of public services, including construction, waste disposal, street maintenance, etc. Transit has not traditionally been subject to this decision-making process, but recently has been urged to be included in such considerations.

The key to obtaining the best services at lowest cost is the competitive nature of the structure. Periodic competitive bidding of all contracts applies continual pressure for effective and efficient services. Public monopolies, which includes most local and regional transit agencies, are not subject to these pressures, and over time may have become unresponsive, overly costly, or both.

There are many reasons to competitively bid for the provision of transit services. Not all are applicable in every locality, but all should be systematically examined to determine the value of each under local conditions. The following discussion highlights major reasons why transit agencies are foregoing their traditional role as both a manager and service provider. They are instead focusing on coordinated public management of whatever entities best provide the particular services.

The public entity is welcome to bid on the services offered, including existing employees in the process. Competitiveness in the public sector and overall is thus enhanced. This implies that several different vendors may provide services, including maintenance (and all its various components), bus operations and administrative/support functions.

a). Competitive Structure

This is the underlying motivation which yields some or all of the following benefits. Public entities are encouraged to compete in an open market, on a "level playing field", to provide transit services. These two key aspects form the basis for fair competition and a rational choice of service providers by public officials. Competition also implies a periodic (every 3 - 5 years) offering of the services through an open bidding process.

b). Cost

This is often the primary reason to competitively procure transit services. This is due to several reasons, primary among them the lack of competitive pressure on public monopolies. In many communities, public officials are faced with difficult choices on how to stretch funds to provide basic services. This may lead to the choice of reducing useful or well patronized services, or utilizing innovative management techniques to better reduce costs before reducing services. Competition may limit or reduce immediate costs, plus limit future cost increases.

c). Control

Some areas have witnessed diminishing local control of regional public transit with the formation of regional authorities that are not locally accountable for their costs, use of subsidies and/or actions. This may be due to several factors, including dedicated tax revenues, political structures, unfavorable labor and other agreements, etc. Competitive contracting has been employed by several major jurisdictions to better the provision and cost of services.

d). Quantity and Quality of Services

Competitive contracting, especially competitive service procurement, is often a valuable tool to maintain or improve services. This is because a private operator is more readily held tc service standards than a public body, and services are periodically reviewed before the service is rebid. Accountability and objective self-assessment are not necessarily present or easily implemented in a public entity.

e). Maintain Public Options

Private operation under contract allows the transit entity to keep its options open regarding future needs, costs, equipment, etc. In the case of new or expanded services, future actions are not artificially precluded, especially due to labor protection offered to public employees as a whole and transit in particular, through special federal labor law and local labor agreements.

f). Risk Minimization

Contracting services can diffuse the liability risks associated with vehicle operations resting solely on the public sector. The private operator becomes responsible for the safe operation of transit services under its control. The public sector remains ultimately responsible for the service, but risks are effectively shared.

Other responsibilities may also be placed on the private provider. These include delivery of products and services such as construction, whereby the private sector has firm delivery dates and quality criteria for which it is accountable. Public entities that experience difficulty in providing products and services to meet transit needs may benefit from a comprehensive contractual arrangement often called "turn key" services. This entails contracting self-contained units to the private sector, which exercises substantial independence in completing a defined responsibility.

2. Potential Barriers To Competitive Procurement

Numerous political, institutional and regulatory barriers may exist to the exercise of competitive procurement as a management tool. The following discussion is meant to generate an awareness of some of these factors so that they may be adequately addressed. The planning process is usually the proper time to resolve existing barriers. These barriers can be, and have been, overcome in numerous instances.

a). Lack of Private Participation in the Planning Process

The private sector, and especially private bus operators, have traditionally been isolated from the transit planning process. Recent federal requirements mandate private participation to the maximum possible extent. Simple requirements, however, are not a substitute for aggressive management solicitation of private sector input.

b). Local Government

Competing needs may limit a locality's willingness to introduce competitive procurement practices in the provision of transportation. Fear of job losses, a general unwillingness to consider the private sector as a valid provider, and a lack of awareness may contribute to this potential barrier. A poor experience with one or several private providers may create hesitancy to risk making past mistakes.

c). Labor Issues

Labor issues are prevalent in transit, as transit organizations are subject to varying constraints simultaneously. These include general federal and state labor law, transit-specific federal and state labor law, local collective bargaining agreements, and local employee policies.

Section 13(c) protections were formulated and applied many years ago under sometimes trying circumstances. These complex and simultaneously vague requirements serve to perpetuate the status quo by restricting management prerogatives in a wide range of activities. Of concern are the base federal requirements and any language in local agreements which may supplement it. Careful review of these documents by management and qualified legal counsel is advised. Organized labor should be expected to exercise its rights under these documents.

Local labor agreements may contain language restricting management's ability to contract new or existing services through so-called "sole provider" clauses, or via limitations on the type or extent of contracting allowed. Other language may attempt to impose the existing labor agreement on future operators, provide for long dispute resolution procedures, etc. Again, labor should be expected to exercise its rights and argue against any activity which may negatively affect them.

In general, public employees are protected against simple replacement unless certain criteria, which have evolved in arbitration and court cases over time, are met.

d). Regulatory Issues

The intra and inter-city bus industry has historically been heavily regulated, often limiting the number of private operators able to offer services in a designated area. While many of the federal (interstate) regulations have been removed, state and local regulations may limit entry, exit and tariffs. Common regulations include prohibition of shared-ride taxi, high insurance levels, franchise rights, etc.

e). Insurance and Bonding

Regulations may exist which require such high levels of insurance and performance bonds for private operators, while exempting the public sector, as to make public-private competition difficult. These requirements may be found at the state or local levels, and may be either law or policy.

f). State Structures

Some states have mandated the creation of transit authorities as a precondition to receipt of grants. In other instances, state or local governments have created transit districts, companies, or authorities with wide powers. In each case, direct municipal options may be limited pending resolution of the barrier. Legislative action may be required.

g). Regulatory Compliance

Small private transit operations may not have the ability to comply with the many federal, state or local administrative and reporting requirements which may be imposed on them. Care must be taken to not overburden the vendor, especially with smaller contracts. Large contracts should attract firms capable of a wide range of administrative functions at a small additional cost over an operations contract.

h). Non-Competitive Procurement

Perpetual negotiation of contracts may lead to higher costs than necessary. Contracts should be periodically bid, preferably every three to five years. UMTA requires competition of service contracts no less often than every five years.

The procurement process should be as concise as possible to avoid discouraging potential bidders. Again, this may be especially relevant when a small block of service is bid, as this is one likely to attract small firms.

i). Lack of Private Operators

This is commonly found when exclusive operating rights are present, or the services offered for bid are not of economic scale. The former is usually a function of regulations at the state level, while the latter is usually under the direct control of the local public entity offering the services for bid.

Attracting private interest in rural areas may be especially difficult due to the small scale of service being offered and/or a lack of local, private or non-profit operators. In this case, consolidation of several services might be investigated as a way to increase economies of scale, thereby making the service more attractive to providers from other areas.

A strong effort should be made to solicit potential bidders. Advertisement in regional and national trade publications is advised in any case.

j). Improper Service Segmentation

A proper mix of private and public operators protects the public against a single operator defaulting or yielding poor service, as well as the creation of a single dominant operator which exercises undue control over the project.

Spreading contracts of economic size among several operators (public and/or private) is viewed as a sound strategy for immediate and long-term protection of service and the public's interest.

k). Purchasing Regulations

Localities may be restricted by laws or policies regarding the method used to procure services such as transit, or the maximum duration of any resultant contract. The use of "low bid" requirements and the Invitation for Bid (IFB) procurement method are usually not suitable for procuring the best service at lowest cost. Transit service contracts are usually considered "service" or "professional service" contracts and may thus be procured using a Request for Proposal (RFP) under common local regulations.

Contracts with short durations may discourage bidders due to the risk involved in such a project (especially if the vendor is responsible for providing vehicles or facilities). This may sometimes be avoided in spite of local regulations mandating 1 year contracts, through the use of optional renewals.

l). Risk Transfer

High capital, insurance, bonding and other requirements may make the project so risky as to preclude adequate competition. Risk is especially related to capital input, good faith, and duration of the contract. High risks will certainly inflate bid prices, perhaps unnecessarily.

m). Good Faith

The private sector must perceive a good faith effort by the public sector. This includes several of the above mentioned factors, as well as the acceptance by the public sector of profit as a valid cost of doing business. Any doubt considering the procuring entity's credibility and sincerity may result in decreased competition.

n). Self Protection and Turf Issues

The public operator may not believe that competitive procurement is a valid management tool. Further, they may simply seek to protect themselves from perceived or real dilution of control. These fears may or may not be justified given the exact local situation, although various tools exist to ensure proper public control.

o). Marketing

In cases where service must be marketed to establish ridership (such as a new subscription bus service), smaller operators may avoid such services with no clearly defined market. This is especially true if the task of marketing falls to the vendor. Private operators may also be reluctant to provide scheduled subscription service which conflicts with charter services.

p). Shared-Ride Taxi

Many communities prohibit this type of transportation service. By prohibiting shared-ride taxi, the service becomes ineligible for federal funding and increases fares, thereby reducing the utility of this mode as a viable alternative. Such restrictions invariably resulted from local regulations dating from many years ago, perhaps as early as the 1920's.

q). Vehicles

Provision of vehicles by the contracting entity can at once be a blessing and a curse. Public provision of vehicles relieves the private operator of a financial barrier that, for smaller operators, can be significant. However, the vehicles supplied may be mismatched for the service intended. They may be old or rare, causing difficulties with maintenance and repairs. Headaches can multiply if the vehicles are of several makes and vintages.

However, public supply of vehicles (or any major asset) gives substantial control to the public entity, as well as ensuring uniformity of appearance and equipment.

Vendor supply of equipment may be appropriate, for all or part of the service, under certain circumstances. These include: desire to avoid large initial capitalizations costs, ownership of unusual assets, or ownership of assets for a doubtful service; the vendor may be able to utilize vehicles in several services, thus reducing costs (e.g., charters on weekends, unsubsidized and subsidized taxi services); and receipt of UMTA section 3 discretionary funds.

r). Restrictive Contracts

While a "tight" contract will protect the public sector from potential pitfalls of contracting, a contract which is too tight reduces the private sector's ability to improvise. Possible side effects are higher costs or loss of interest in providing services. Care must be taken to construct a balanced and fair contract to avoid unnecessary costs.

3. Major Transit Service Contracting Issues

This section summarizes some of the optional strategies which should be considered when investigating competitive contracting. Most concern the design of the contracted service and various responsibilities which may be assigned to the vendor.

a). Scheduling and Dispatching

This function can be handled by the vendor, by a public entity, or by a broker (third party); scheduling can be done ahead of time or on demand (like taxis); scheduling can be partially or totally pre-determined (subscription service). Centralization of intake, dispatch and scheduling functions may increase control but remove some of the efficiencies and productivity inherent in allowing the private sector to develop their own systems. A centralized system is also appealing if there is to be little or no automation of client records and trip history.

A drawback is that the public entity is involved in the process leaving itself open for blame at any stage and making enforceability of service standards difficult, if not impossible. Another item to consider is the minimum and maximum advance reservation times. A shorter period is beneficial to riders who use the system like a bus yet difficult for those who like to plan ahead as well as carriers which pre-schedule their trips. Dispatch facilities should have a public telephone number manned during all hours public services are being provided (from the first pickup until the last dropoff).

b). Client Certification

The type of service offered (demand-response general public, demand-response elderly and disabled) will largely determine the client certification procedure. The process may be handled in-house, through an independent third party (such as a clinic or senior citizens center) or by the vendor. General public services, such as feeder services and commuter subscription runs, do not require special procedures, since the limits placed on service area adequately preclude 'unauthorized' use.

It is important that written procedures be followed. An agreement with a single physician or clinic may reduce potential fraudulent certification. If not already the practice, photo i.d. cards may be issued and social security numbers can be collected for use as rider identification numbers (phone numbers can be used but group homes may present a problem).

Qualification of elderly riders requires no interpretation and is, therefore, a straightforward process. Certified rider records should be recorded in a computer database and, if possible, trip authorization should be handled through a remote carrier terminal. General public riders are difficult to certify (unless criteria such as income or geographical area are stipulated) since there are many more potential users.

c). Vehicle Ownership

Private vehicles may be dedicated to a specific service or free to be used for other purposes. Allowing vehicles to be used for other purposes permits capital costs to be shared and improves service efficiency. The same concept is true for other assets, such as facilities and radios, as well as services such as licensing and insurance. A maximum age, mileage limit, or combination should be set. Spare ratios may be specified and fleet mix can be prescribed as well.

The contract's length will greatly influence whether vendor purchasing or leasing is financially viable, i.e., a short term contract with requirement for new vehicles dedicated to one service will either fetch a very high bid price or discourage bidders altogether.

Public ownership of vehicles provides flexibility in replacement of vendors (especially important with single carrier large programs) but limits the carrier to vehicles which they might not feel are well suited, are in poor shape (making performance standards hard to enforce) with the added difficulty of bureaucratic procedures in acquiring new vehicles.

d). Vehicle Maintenance

Maintenance can be provided by the vendor, by a public entity, or might be subcontracted to another vendor. Whoever is best equipped to handle maintenance at a reasonable cost should be selected. It is entirely possible that a vendor is selected to provide service but is not interested in, or is poorly qualified to, maintaining vehicles. A description of each firm's maintenance capabilities and standards (especially preventive maintenance) should be required in the solicitation process. Guidelines may be strict or loose (depending on who owns the vehicles) and might include a provision by the contracting entity to inspect records and/or vehicles.

A performance standard on miles between breakdowns can be written into the contract. Vehicle cleanliness is also important and standards may vary by season (as can the working condition of ancillary equipment such as heaters and air conditioners).

e). Safety

This is an extremely important area. It is essential that the vendor's employees receive thorough defensive driver (including classroom) and sensitivity/passenger assistance techniques training (for disabled and other special groups).
Consideration should be given to requiring cardiopulmonary resuscitation (CPR), first aid and passenger assistance/special equipment training. Geographic training is essential for demand response programs. While high standards for this training should be set, they should be reasonable compared to what is expected of in-house drivers and/or is the local norm.

All drivers should submit license records prior to acceptance into the program and every year (preferably every six months) thereafter. Excessive numbers of moving violations and convictions for driving under the influence of alcohol or drugs should eliminate a driver from the program. Each bidder should be required to submit a safety policy at the time of proposal.

f). Risk Management

Insurance is essential and can be vendor supplied, supplied by the public entity, or vendor supplied but with an agreement that if the premium increases, the public entity would pay for part of the increase. It can also be secured by the vendor but paid by the public entity (pass through).

It is necessary to affirm, either through the RFP or the contract, that the vendor's insurance carrier meets minimum Best and Company rating criteria (usually a B+ rating is required) and is capable of handling any deductibles and self-insured retainers without jeopardizing future services. The recommended minimum combined single limit coverage is $1,000,000, but will vary according to individual situations. Collision coverage and comprehensive insurance is also required.

Another element of a sound risk management package is performance assurance. Performance bonds are purchased by vendors as insurance that they will perform as stipulated in the contract. Bonds, however, are limited in what they can achieve. An alternate method of ensuring performance, such as retaining a portion of the vendor's monthly pay, may be preferred. During the procurement process, bidders should furnish proof of insurability and bondability to the prescribed limits. Also in the procurement stage, a thorough financial analysis of all bidders should be performed. It should be noted that small companies, most non-profit entities, and many taxi firms cannot secure a performance bond at all.

g). Economies of Scale

A number of factors influence a program's economies of scale. As mentioned above, allowing for mixed-use of vehicles improves economies by increasing the chances of having other riders going from similar origins to similar destinations at similar times.

Economic size is also important when assessing scale. A small, exclusive program, serving a limited population, using an out of town vendor, supplying his or her own vehicles and facilities, will probably not have significant economies. Conversely, a larger program, or one which consists of several programs (for example, elderly and disabled paratransit and some general public transit) should attract a broader group of bidders resulting in greater price competition.

If a small service is to be contracted out, it is probably best handled by a local company with existing facilities with a provision to allow for mixed use (other disabled, retarded and/or elderly) of vehicles.

h). Payment Methods

Basic payment structures are per hour, per mile or per passenger and fixed annual cost. Each may include the vendor keeping passenger fares or turning them over to the public entity. For paratransit services, payment per passenger ensures that the vendor will provide an efficient service since the more passengers they carry per vehicle, the more money they make. If paratransit services are paid by the hour or mile, payment should be tied to productivity level. Determining an

acceptable level may be difficult prior to actual operation of a new service. In such cases, a guaranteed number of annual vehicle hours should resolve this situation pending an adequate estimate of patronage.

Another factor to consider is verification that service was performed. It is easier to verify that any given trip was performed than to determine how long it took, how many miles it covered, and actual vendor productivity. For fixed-route services, unit mile or hour payment is acceptable since the service level is predetermined. Payment per passenger is not the norm for fixed-route. However, to encourage increased ridership, a carrier can be given a reward if ridership tops a particular number. Another way to encourage increased ridership (and possibly improve service quality) for fixed-route service, is to allow the vendor to keep passenger fares (an additional advantage of this option is that there is no daily transfer of fare revenue).

For demand-response services, carriers may be paid in full, partially reimbursed, or not paid at all for rider no-shows and late cancellations. It is not unusual to pay a flat surcharge for wheelchair patrons, since vehicle dwell time is much higher than for ambulatory passengers.

Partial payment can be withheld, for any service type, for poor performance, as stipulated in the contract. A detailed invoice can be required and payment can be made with the stipulation that an audit may be performed and subsequent payments reduced to offset discrepancies.

i). Contract Structure

The contract can be brief or detailed. It can include penalty and/or incentive provisions connected to vendor compliance with specifications as well as liquidated damages (these should be negotiated with the carrier to establish realistic objectives). To the maximum extent possible, the contract should be a "living" document so that as experience is gained in managing a contracted program, appropriate modifications can be made.

The contract itself can contain detailed operating policies and procedures or reference a separate document. Among the items to be included are:

- scope of services to be performed
- responsibilities of all parties
- definition of terms, performance standards, incentives and penalties
- handling of fares
- dispute resolution process
- auditing procedures
- vehicle requirements
- maintenance requirements
- required training
- driver specifications
- policy on subcontracting

- vendor's liability
- insurance and bonding requirements
- applicable federal, state, and local clauses
- other, as appropriate

Other elements will depend upon local, state, or federal requirements such as Disadvantaged Business Enterprise (DBE) obligations, conservation, and Equal Employment Opportunity (EEO) requirements. A lease contract will also be required if the public entity supplies capital equipment to a contract carrier.

An article reprinted from the Community Transportation Reporter, titled, "A Short Guide To Writing Contracts", is included in the Appendix to this chapter.

j). Contract Term

The length of the contract is dependent upon a number of factors. Ownership of assets, i.e., vehicles and facilities purchased or leased for the service by the vendor, calls for a longer term since short leases and/or amortization periods increase the cost of doing business. Alternately, a longer term increases the risk of being stuck with a poor carrier. The contract can include renewal options so that extension is easily available to an adequately performing vendor. The recommended term is a two or three year contract with optional one year extensions. A contract should not be issued for longer than a five year period.

k). Labor Issues

First and foremost, it should be stated that individuals providing service are employees of the vendor, not the public entity. The contract should contain an "independent contractor" clause and the public entity should understand that they have limited control over individuals employed by a vendor. Any dilution of this understanding invites significant problems for the public entity at a future date.

l). Service Quality and Quantity

Any amount of service can be obtained at any level of quality, if the price is right. The task is to strike a balance between needed or desired quality and size of program. A large service of questionable quality will be far less expensive (on a unit basis) than a small, high quality service.

Factors such as the type and age of vehicle, cleanliness, on-time performance, driver aids, uniformed drivers, in-vehicle ride time, and shared versus exclusive ride, will influence the cost. The public entity must make determinations such as whether a pickup 15 minutes or 30 minutes overdue is considered on-time. Is a 95% on-time record desirable or will an 80% record suffice?

Quantity of service offered can be controlled by the number of vehicles, the hours of operation, days of operation, eligibility criteria, trip limits and/or geographical boundaries. A realistic, fair price for the service helps avoid poor vendor performance, or at the extreme, default.

m). Quality Assurance

The most effective way to ensure quality of service is to set reasonable, attainable service standards in conjunction with the provider, to enforce those standards with incentives and penalties through an effective monitoring program, and to require timely submission of thorough but not overly burdensome records. Additionally, it is highly recommended that the public entity meet on a regular basis with the vendor. Nothing replaces face-to-face contact and dialogue to discuss operating data, anticipate problems, resolve differences, and improve service.

Vendor reports are essential since the public entity will have little first-hand knowledge of exactly how services are being provided. If the program is automated (computerized), the creation and submission of reports will be greatly simplified. Otherwise, a prearranged format should be developed and, in most cases, the vendor should submit monthly reports. Monitoring need not be an overly burdensome task for the public entity. For paratransit services this can entail random trip ticket sampling (auditing) combined with telephone surveys and limited on-street monitoring. Monitoring for fixed-route services will require more on-street monitoring since no individual client records will be kept. In both cases, the public entity should also handle complaints as part of the monitoring effort.

Standards, incentives and penalties simultaneously encourage the vendor to provide quality service, provides an objective basis for measurements, and allows remedies short of termination for vendor non-compliance. Penalties and incentives must be based upon clear criteria, center on issues controllable by the vendor, be fair and reasonable in relation to the services rendered, and be of importance to the public entity. They must also be measured with reasonable ease and at an expense proportional to their value.

Performance standards may include the following: trips completed/missed, complaint ratio, on-time performance (pickup time, dropoff time, in vehicle ride time), vehicle condition (body, interior, mechanical, cleanliness), accident ratio, personnel (uniforms, training, proper management), and reporting requirements.

A PPTN publication titled, "A Guide to Successful Transportation Services Contract Monitoring", is included in the Appendix to this chapter.

n). Cost Pass Throughs and Adjustments

Some transit contracts utilize cost pass-throughs, whereby the potentially unstable cost of a particular item is borne by the public entity. These clauses, especially for items such as fuel and insurance, guarantee that the public entity pays only for the actual cost of the item avoiding vendor mark-ups for profit, administration or uncertainty. They are usually applied in long-term, fixed price contracts. Another option is to begin the contract with a base cost for unstable items and have periodic adjustments based upon price indices or actual costs. A word of caution regarding items such as insurance: the contract must state that increased costs must not be due to negligent or unsafe actions on the part of the vendor.

o). Private Sector Participation

The private sector can and should play a significant role in the procurement process from planning, allowing you to assess the market, to suggesting acceptable terms and conditions, etc. At the earliest feasible point, the private sector should be included in the planning process for contracting. Their input can be invaluable and the result will be a service which the public entity, the providers, and the public being served can, live with.

At the outset, the public entity should attempt to determine the level of interest on the part of the private sector, in providing the proposed service. Preliminary feedback on the reasonableness of the proposal may also be solicited. The public entity should take steps to ensure that potential bidders understand the exact nature of the proposed solicitation including the outline of the steps in the proposal process, evaluation and award factors, and the anticipated time frame.

A pre-bid conference should be held to clarify any misunderstood specifications, disseminate additional information, and establish a rapport between the public entity and potential bidders. The time required for preparation of proposals and/or bids depends upon the type and amount of service being offered for bid and the chosen procurement strategy. Allow bidders adequate time to develop a reasonable proposal.

Communication is the most essential element in establishing and maintaining public entity credibility. Following the aforementioned points will allow the public entity to establish good rapport and contribute greatly to the project's success.

p). Solicitation Process

There are several mechanisms for bidding transit services, although local and state regulations may limit the selection of those presented. It is important to decide what is desired from a contractor before writing the specifications, as different services are best solicited through specific means. The variables may include: operations, management, maintenance, service planning, contract size, complexity and others.

The first type of strategy is called an invitation for bid, or IFB. This is the most commonly used procurement method requiring complete and comprehensive specifications, two or more responsible bidders, and selection on the basis of price alone. IFB's are often used in the procurement of vehicles and other equipment.

The next method, request for proposal, or RFP, is used in competitive negotiation situations where oral and/or written discussions with proposers are needed for negotiation. The award is based upon comparative evaluation of differing price,

quality and contractual factors. With an RFP, the primary award consideration need not be price and a more general description of service specifications is utilized allowing for greater flexibility and creativity in bidder's responses. RFPs are often used to hire consultants and in instances where new and/or radically changed services are being contracted.

Finally, there is the multi-step procurement strategy. Multi-step strategies are becoming increasingly popular as a way of pre-qualifying responsible and responsive bidders. They allow the public entity to invite and evaluate different technical approaches, to conduct discussions with vendors to understand and select the best technical approaches, to incorporate some of the flexibility of an RFP into the IFB process, and then award the contact to the lowest and best bidder in accordance with sealed bid procedures.

Each of these strategies has its advantages. To reiterate, the process selected should be based upon the type of service being procured, the need for detailed specifications, the ability to introduce flexibility and creativity, the time available to procure the service, and above all, required state and local procurement methods.

q). Selection Process

A formal evaluation process is essential to choosing the vendor who will best meet the public entity's needs and is both willing and able to complete the project. The exact evaluation criteria utilized will depend upon the solicitation process chosen. The solicitation document should outline the evaluation process and indicate the areas to be measured.

While cost alone can be the sole determining factor in contractor selection and, in fact is the only criteria in an IFB type of procurement, other factors can be equally or even more important to ensure dependable quality service.

The selection criteria should mirror the public entity's concerns when developing the entire project and be conveyed, at least in basic form, in the solicitation document. The evaluation process is subjective. All evaluation methods and processes should be defined up-front within the public entity and communicated to the proposers, although the level of detail regarding weighing of evaluation factors may be kept secret. The technical evaluation should be performed by an evaluation team, typically three to five individuals within the agency providing a range of experience and skills.

The evaluation activities should result in determination of a competitive range. The best qualified proposers are selected based upon evaluation scores. Additional discussions and negotiations are conducted and the best and final proposer is chosen. In instances where the vendor will supply equipment and/or facility, a site visit is in order prior to final selection. An audit of financial records may be important to ensure that the contractor is able to provide the specified services for the bid price.

J. Marketing and Public Information

The effective marketing of community transportation services will assist in increasing ridership, building community and local business support, and expanding public influence. Transit marketing, while important and necessary to accomplish these stated objectives, is often difficult for the smaller transit provider due to limited funds and staff expertise.

In view of these constraints, it is recommended that marketing strategies be kept simple, and that low cost techniques directed at targeted market segments be employed.

Listed below is an eight step marketing program for your consideration.

1. Determine the amount of funding and the amount of staff time that can be allocated to the marketing effort

The amount of funding that is available will determine the type(s) and amount of marketing to be accomplished. Knowing the amount of time, and when that time is available will help in setting a schedule for implementing the marketing effort. Avoid planning a marketing program that you cannot afford, either financially or in terms of time available.

It is best to spread the available resources over an entire year's period so that there are consistent reminders to the public about your service. Plan periods of greatest promotion according to staff availability and, if possible, during periods of increased ridership or community activity.

2. *Identify the goals and objectives of your marketing effort*

Set realistic goals and objectives for your system and structure your marketing efforts to meet those goals. Do not advertise or promote what you cannot provide! Some possible goals for your agency may be to increase overall ridership, increase specific time period ridership, attract specific population segments, improve system image, improve awareness of system availability, attract new revenues, build local community and business support, etc.

3. Examine current marketing efforts to determine those procedures that have proven successful and those that have not

If your agency has a marketing program currently in place, a review of those operational statistics relative to the marketing goals will indicate the degree to which your program has been successful. If, for example, the stated program goal was to improve the system image, but a review of operational statistics show that the level of complaints over the period in question have increased, then it can be assumed that the strategies used were less than successful. Likewise, if the goal was to increase overall ridership and a review of ridership statistics show that an increase did occur, then the strategies that were used were most likely successful.

If multiple strategies were used to accomplish a single goal, then a more detailed examination is necessary to determine which of those strategies was most responsible for success or failure in meeting the goal.

4. Identify the target market segment

The type of information developed in Chapter 2 and 3, Determining the Local Market and Estimating Potential Riders, will be useful in identifying the target audience for your marketing program.

A comparison of current ridership statistics; i.e., who uses the service, where do they go, what time of day do they travel, etc., with general area statistics such as demographic, geographic, behavioral, and other population characteristics will assist in identifying those groups that are potential users of your system. For example, a marketing effort directed toward students in a campus area or setting will be more effective than one directed toward senior citizens. Likewise, a marketing effort directed toward that segment of the local population with low automobile ownership will most likely be more successful than one directed to a segment with high automobile ownership.

5. Identify potential marketing activities and media outlets

Now that marketing goals and target audience have been identified, develop specific marketing activities or strategies that will assist in meeting those goals. The use of one or more advertising media is recommended, with the use of a central theme and a consistent graphic style and/or logo to tie the program together.

Commonly used media approaches are newspaper, radio, television, direct mail, and outdoor advertising. In addition, special promotions, merchandising, speaker services, and participation in community events can be an effective part of a comprehensive marketing plan.

Select those activities and media outlets that are appropriate for the market segment that has been identified. For example, advertising on a "rock" radio station will not be effective if the selected market segment is senior citizens.

6. Develop an implementation program and schedule that fits within the time and budget allotments

An estimate of cost and amount of time required should be attached to each of the marketing activities identified in the previous step. Maximum use of public service announcement opportunities with the various media, use of community cable television, and piggybacking on other programs and services such as including an advertisement in the monthly utility bill, will help to stretch marketing dollars.

Selected activities should be spread over the entire market effort period, however, in some instances a combination of activities at one time can prove successful. For example, adding a promotional event or public relations activity to a media campaign will increase the overall impact and effectiveness of the ad campaign.

7. Implement the program

Well thought out and detailed planning in each of the previous steps will assure ease in the implementation stages of a marketing effort. Remember that the most effective marketing technique is the provision of safe, quality service that is consistent with the needs of the community. Satisfied customers, a good public image, and frequent, meaningful communication with the community will do as much or more toward meeting stated program goals and objectives as the most comprehensive of marketing efforts.

8. Review program results and make adjustments as necessary

On-going evaluation of the effectiveness of the marketing strategies that have been adopted are essential. Those activities that have been successful may be repeated or emphasized, and the plan restructured as necessary at any time, based upon this evaluation and on community input.

The article, Seven Dynamite Ways to Get Your Company Noticed, as reprinted from Business Marketing's October 1988 issue, is included in the Chapter VIII Appendix. Although not specifically transportation related, the concepts that are presented are very applicable to a transit marketing program. Two articles on transit marketing from the July 1989 issue of Community Transportation Reporter are also included.

K. Resources and References

The following references and resources are available for additional information on the various subject areas discussed in Chapter VIII.

General

Small Transit System Management Handbook, Michigan Public Transportation Program, (DOT-I-86-32, December 1985) provides a basis for instituting, organizing, and maintaining small transit systems.

Handbook for a Transportation Management Review, (DOT-I-87-18, October 1986) describes procedures for management review to discover whether or not the transit system has adequate management systems in place.

Strategic Planning in Small and Medium-Size Transit Agencies, (DOT-I-87-15, August 1986) describes the process of deciding on and implementing organizational objectives.

Maintenance Manager's Manual for Small Transit Agencies, (DOT-T-88-08, March 1988) describes a program to improve maintenance operations and controls in smaller transit systems.

Planning Guidelines for Coordinated Agency Transportation Services, (DOT-I-87-33, April 1980) describes how to assess the potential of services for coordination, and how to compare alternate approaches for providing services.

Risk Management Resources

The Public Risk Management Association (PRIMA)
1120 G. St. NW
Suite 400
Washington, DC 20005
(202) 626-4650

The Risk and Insurance Management Society, Inc. (RIMS)
20 East 42nd St.
New York, NY 10017
(212) 286-9292

Society for Risk Analysis
1340 Old Chain Bridge Rd.
Suite 300
McLean, VA 22101
(703) 790-1745

Safety

American Academy of Safety Education
c/o Jack Green
2202 Hathaway Dr.
Greensboro, NC 27408

American Society of Safety Engineers
1800 East Oakton St.
Des Plaines, IL 60018
(312) 692-4121

Board of Certified Safety Professionals of America
208 Burwash Ave.
Savoy, IL 61874
(217) 359-9263

Federal Emergency Management Agency (FEMA)
National Office
Washington, DC 20472
(202) 254-6827

International Institute for Safety in Transportation
P.O. Box 63
Franklin Square, NY 11010
(516) 455-0050

National Safety Council
444 North Michigan Ave.
Chicago, IL 60611
(312) 527-4800

National Transportation Safety Association (NTSA)
8000 N. Ocean Dr.
Dania, FL 33004
(305) 475-7487

Insurance

Alliance of American Insurers (AAI)
1501 Woodfield Rd.
Suite 401
Schaumberg, IL 60159
(312) 490-8500

American Insurance Association (AIA)
85 John St.
New York, NY 10038-2823
(212) 669-0400

American Risk & Insurance Association (ARIA)
Dr. Richard E. Johnson
Executive Director
Brooks Hall
University of Georgia
Athens, GA 30602

Independent Insurance Agents of America
600 Pennsylvania Ave. SE
Washington, DC 20003
(202) 544-5833

Insurance Information Institute (III)
110 William St.
New York, NY 10038
(212) 699-9200

Insurance Institute of America, Inc. (IIA)
Providence and Sugartown Roads
Malvern, PA 19355
(215) 644-2100

National Insurance Consumer Organization
121 N. Payne St.
Alexandria, VA 22314
(703) 459-8050

Other Organizations

Academy for State and Local Government
400 N. Capitol St. NW
Washington, DC 20001

American Public Transit Association
1225 Connecticut Avenue, NW
Suite 200
Washington, DC 20036
(202) 828-2800

American Public Works Association
1313 East 60th St.
Chicago, IL 60637

American Tort Reform Association
1250 Connecticut Ave. NW, 7th Floor
Washington, DC 20036
(202) 637-6490

Occupational Safety and Health Administration (OSHA)
U.S. Department of Labor
200 Constitution Ave. NW
Washington, DC 20210
(202) 523-6072

HANDBOOKS, MANUALS, AND PUBLICATIONS

Risk Management

American Public Transit Association
1225 Connecticut Avenue, NW
Suite 200
Washington, DC 20036
(202) 828-2800

> A Manual on Risk Management for the Public Transit Industry prepared by Charles T. Barthlomae, September 1986.

The Public Risk Management Association (PRIMA)
1120 G St. NW
Suite 400
Washington, DC 20005
(202) 626-4650

> Pooling: An Introduction for Public Agencies (A how to manual for starting an intergovernmental pool)

Tort Liability Today: A Guide for State and Local Governments (A definitive guide to tort law and reform in each state)

Basic Risk Management Handbook for Local Government

Risk Management Today: A How-To Guide for Local Government

"OUTREACH" (PRIMA's Outreach series reprints successful programs from its member governments and authorities)

- Recreation and Community Service Manual
- Motor Vehicle Safety: Policies and Procedures
- Procedure Manual for Contract Requirements
- Risk Management Manual
- Special Events Policies and Procedures

U.S. Chamber of Commerce
1715 H. St., NW
Washington, DC 60611
(312) 527-4800

Analysis of Workers' Compensation Laws

United Way of America
Sales Service Department
701 Fairfax St.
Alexandria, VA 22314

Risk Management: A Guide for Non-Profits

Urban Mass Transportation Administration
400 7th Street, SW
Washington, DC 20590

"Draft Content Guidelines for Bus System Safety Program Plans," prepared by American Public Transit Association Safety and System Assurance Liaison Board, 1979.

Public Transit Risk Management: A Handbook for Public Transit Executives, prepared by Fred S. James and Co., December 1978.

Wisconsin Bus Safety Manual, prepared by National Transit Services in association with the David L. Ellis Agency, September 1985.

Risk Financing

International Risk Management Institute Inc. (IRMI)
12222 Merit Dr.
Suite 1660
Dallas, TX 75251
(214) 960-7693

Glossary of Insurance and Risk Management Terms (Defines over 1,500 key insurance and risk management terms and phrases in layman's language.)

Exposure Survey Questionnaire (Assists risk manager in identifying important loss exposures and determining necessary insurance coverages).

Guidelines for Insurance Specifications (A reference manual designed to assist insurance buyers, risk managers, and consultants in the preparation of comprehensive and easily understood insurance specifications).

Insurance

A.M. Best Company
Ambest Rd.
Oldwick, NJ 08858
(201) 439-2200

Best's Insurance Reports (Property-Casualty) (Operating and finance details on all U.S. and many foreign insurance companies.)

Best's Key Rating Guide (A summary of 5-year financial data on all U.S. insurers. Gives the "Best Rating" figures for all insurers.)

The National Underwriter Co.
420 E. 4th Street
Cincinnati, OH 45202
(513) 721-2140

Agent & Buyer's Guide (A guide to purchasing insurance by line.)

Fire, Casualty and Surety Bulletins

Warren, McVeigh & Griffin
1420 Bristol Street N.
Newport Beach, CA 92660
(714) 752-1058

Commercial Liability Insurance (A two-volume loose-leaf manual that covers primary insurance, liability insurance, with policy analysis and specimen forms.)

The Umbrella Book (A two-volume loose-leaf, detailed analysis of most umbrella liability policies.)

AUDIO-VISUAL

The Film Library
International Safety Academy
P.O. Box 76146
Los Angeles, CA 90076
(213) 381-5569

Greater Los Angeles Chapter
National Safety Council
Film Library
616 S. Westmoreland Ave.
Los Angeles, CA 90005
(213) 385-6461

National Committee on Films
for Safety (NCFS)
c/o R.W. O'Brien
444 Michigan Ave. 20th Fl.
Chicago, IL 60611
(312) 527-4800

The Public Risk
Management Association (PRIMA)
1120 G Street NW
Suite 400
Washington, DC 20005
(202) 626-4650

PRIMAVISION (A PRIMA service which presents highlights from PRIMA's popular seminars and conferences on video tape.)

Assembling the Safety and Loss Control Puzzle (A one hour program which explains to viewers the components of an effective workable safety and loss control program.)

Claims Management: Inside vs. Outside (This tape focuses on the advantages and disadvantages of both in-house claims management and claims management through third-party administrators. Assists in deciding which form of claims management would be most effective in a given situation.)

Contracting

The following publications are available from the Public Private Transportation Network (PPTN), 8737 Colesville Road, Suite 1100, Silver Spring, MD 20910 (800) 522-7786.

Cost Allocation Model, Bajpai 1989. *Allows user to determine full costs of any service provision. Computer diskette designed to run on IBM PC, AT, and XT or compatible systems with a color or monochrome monitor. Includes user manual.*

An Analysis of Labor Issues Raised by the Subcontracting of Public Transit Operations, Woodman, 1987. *Focuses on issues associated with collective bargaining and Section 13(c) labor issues.*

Executive Summary: An Analysis of Labor Issues Raised by the Subcontracting of Public Transit Operations, Woodman, 1987. *A condensed version of the above listed publication.*

Federal, State, and Local Regulatory Requirements: Applicability to Private Contractors under Contract, Woodman, 1987. *Addresses the issue of government regulatory requirements facing a private operator contracting with a transit agency.*

Manager's Handbook: Guidance for Addressing Section 13(c) Issues, Woodman, 1987. *Covers basics of 13(c) agreement and discusses obstacles to private sector contracting.*

Selecting Bus Routes for Competitive Bidding, McCollom, 1988. *Discusses factors a public agency should consider when it wishes to contract out some of its fixed route service.*

Organizing and Conducting an Effective Pre-Bid Conference, Kaiser, 1987. *Covers aspects of holding a pre-bid conference, a suggested step in any transit service procurement process.*

A Compilation of Performance Standards, Incentives, and Penalties for Use in Contracted Transit Services, Marx, 1988. *Compiles several agencies' approaches to setting performance standard for various mass transportation services.*

A Generic Request for Proposal Document for Rural Paratransit Services, Marx, 1989. *Provides basic framework and language to begin writing a Request for Proposal.*

A Generic Contractual Document for Procurement of Transit Services, Marx, 1989. *Contains the language and sections considered vital to procure public transit services.*

A Generic Request for Proposal for Maintenance Contracting (DRAFT), Morgan, 1989. *This sample RFP assists in planning contracted maintenance services.*

A Guide to Successful Transportation Services Contract Monitoring, Kaiser, 1989. *Covers the essential elements of developing a comprehensive monitoring program for contracted transportation services.*

The publications listed below are available from the Office of Technology Sharing, US Department of Transportation, Rm 9402, 400 Seventh Street, SW, Washington, DC 20590 (202) 366-4997.

Barriers to Private Sector Participation in Public Transportation (DOT-T-86-34, Albany, New York, September 1986). *Analyzes key issues associated with contracting for public transportation services.*

Cost Analysis Methodology for Demand-Responsive Service (Maryland DOT, DOT-T-89-06, October, 1988). *Assists users in identifying and understanding the costs of their transportation services by explaining methods for cost allocation and cost estimation.*

Expanding the Use of Private Sector Providers in Rural, Urban, and Suburban Areas (DOT-T-88-17, October 1987). *Studies cases in rural, small urban and suburban transit systems that have been successful in utilizing private transportation companies, reducing government intervention, and minimizing their reliance on UMTA funding.*

Innovative Funding for Intercity Modes: A Casebook of State, Local and Private Approaches (DOT-1-87-21, July, 1988). *Presents an overview of recent changes in the intercity transportation industries and provides examples of joint public-private sector co-operation.*

Key decisions in Urban Transportation Public Private Co-operation (DOT-T-88-15, May, 1988). *Explores the role of the private sector in urban transportation and identifies policy mechanisms and actions illustrating key decisions in public-private sector co-operation.*

A Manual of Procedures to Allocate Costs of Rural Public Transportation Among Participating Towns and Human Services Agencies (John Collura, University of Massachusetts, DOT-RC-82028, March 1981). *Provides assistance and guidance in the design and evaluation of procedures which can be used to allocate costs of public transportation programs in non-urbanized areas of the United States.*

Planning Techniques for Intercity Transportation Services (DOT-T-87-22, July, 1987). *Reviews techniques to compare intercity bus, rail, air and other services in low density areas.*

Private Sector Involvement in Urban Transportation: Case Studies (DOT-I-87-09, December, 1986). *Assists local and regional agencies by examining new approaches and procedures for involving the private sector in the planning and implementation of highway systems and recommends ways to improve private-public partnerships.*

Public/Private Partnerships in Transit: Volume 1 (Summary Report) (DOT-1-85-30, April, 1985). *Reviews proceedings of two NARC/UMTA Conferences on Public/Private partnerships in transit and provides case studies of the joint public/private transportation ventures presented at these meetings.*

Public/Private Partnerships in Transit: Volume 2 (Appendices) (DOT-I-85-31, April 1985). *Provides in-depth case studies on all presentations made during the 1984 NARC/UMTA conferences.*

Public/Private Partnerships in Transportation: A Casebook for Local Elected Officials. (DOT-1-86-15, February 1986). *Presents selected examples of public private partnerships that can be adopted and applied by a variety of communities.*

Rural Public Transportation Performances Evaluation Guide (DOT-I-83-31, November 1982). *Describes a variety of indicators for use to assess rural transit operations.*

The Seventh National Conference on Rural Public Transportation (DOT-I-86-19, February 1987). *Describes the sessions and conclusions of a major national meeting on rural transit.*

Transit Service Contracting: Cream-Skimming or Deficit-Skimming? (DOT-T-89-13, December 1988). *Attempts to resolve controversy surrounding competitive contracting by using a balance of empirical analyses and qualitative case analysis.*

The Use of Contracting by Public Transit Agencies in California (California DOT, DOT-I-87-32, September 1986). *Documents and assesses the use of contracting arrangements by public transit agencies in California for obtaining goods and services from the private sector.*

Innovative Financing for Transportation: Practical Solutions and Experiences (DOT-I-86-20, April 1986). *Presents a compilation of papers delivered at a 1985 conference in Fredericksburg, VA on the innovative financing schemes that have been developed and used by state and local transportation agencies.*

HSTC-Consolidation of Human Service Transportation in Bridgeport, Connecticut (DOT-TSC-UMTA-83-44, December 1983). *Report of an operating model of an effective consolidated elderly and handicapped transportation network utilizing the consortium concept.*

Minority Business Participation in Public/Private Partnerships: A Manual On Joint Development, (DOT-I-86-14). *Designed as a self-teaching guide, this manual promotes increased equity ownership participation by disadvantaged business enterprises in transit related real estate development.*

Other relevant competitive contracting publications (see phone number provided with each entry for information on obtaining the publication).

American Red Cross Guidelines for Transportation Services (ARC 4386, December, 1987). The American Red Cross, Washington, DC (202) 737-8300. *Provides the official Red Cross directions for establishing and maintaining their specialized services.*

Competitive Transit Service: A Problem-Solving Handbook for Mayors (U.S. Conference of Mayors and Peyser Associates, September, 1986). U.S. Conference of Mayors, Washington, DC (202) 293-7330. *Gives elected public officials ideas on how to move towards higher quality and cost-effective transit service through greater competition.*

Estimating the Cost Impacts of Transit Service Contracting (UMTA-CA-06-0220-1, Washington, DC, December, 1987). UMTA Office of Budget and Policy, Washington, DC (202) 366-1666. *Reports the results of an analysis of the potential cost impacts of private sector service contracting by transit agencies as well as the results of a nationwide survey of the nature of existing transit service contracting.*

Fully Allocated Cost Analysis Guidelines for Public Transit Providers (Price-Waterhouse Office of Government Services, April, 1987). UMTA Office of Budget and Policy, Washington, DC (202) 366-1666. *Describes generally accepted approaches to fully allocated cost analysis which are in accordance with UMTA's guidelines for implementation of the Private Enterprise Policy.*

The Potential for Optimizing Public Transit Service Through Competitive Contracting (Wendell Cox, March 1987). American Bus Association, Washington, DC (202) 842-1645. *Assesses the ability and interest of the private bus industry to respond to the need for cost effective and innovative public transit services.*

Private Sector Contracting for Transit Services: Operator Handbook (ATE Management and Service Company, March, 1989) International Taxicab Association, Kensington, MD (301) 946-5700. *Addresses procedural difficulties in developing contractual relationships between private operators and public agencies and provides practical information about service contracting.*

Private Sector Experience in the Provision of Specialized Transportation for the Elderly and the Handicapped (Hope Associates, UMTA-DC-06-0518-88-01, July 1987). UMTA Office of Technical Assistance and Safety, Washington, DC (202) 366-0201. *Reviews the experience of the private sector in the provision of specialized transportation for the elderly and handicapped persons.*

Private Sector Involvement in Urban Transportation (Rice Center for UMTA and Federal Highway Administration December 1986). UMTA Office of Budget and Policy, Washington, DC (202) 366-1666. *Reviews successful experiences with private sector involvement in urban transportation planning.*

Public Transit Service Contracting (Roger Teal, University of California-Irvine for UMTA, March 1986). UMTA Office of Budget and Policy, Washington, DC (202) 366-1666. *Gives an overview on the utilization of transit service contracting and its cost saving potential by summarizing research on a major study of public transportation service contracting.*

Public Transit Services: Considerations in Contracting (Public/Private Working Group of the American Public Transit Association July, 1987). American Public Transit Association, Washington, DC (202) 898-4000. *Explores issues and approaches that should be considered in the area of contracting for provision of public transit services.*

The Role of the Taxi in Programs funded by the US Department of Health and Human Services and the US Department of Transportation. (Sandra Rosenbloom, November 1987). International Taxicab Association, Kensington, MD (301) 946-5700. *Studies the barriers to the active involvement of the taxicab industry in programs funded by HHS and DOT.*

Transit Service Contracting: Experiences and Issues (Roger Teal, University of California-Irvine, January 1985). Paper presented at the 64th Annual Meeting of the Transportation Research Board, Washington, DC (202) 334-3214. *Addresses issues related to private contracting and its economic benefits and factors affecting its feasibility.*

Competitive Contracting for Transportation Service (A Nuts and Bolts Approach). (COMSIS, January 1989). Ohio Department of Transportation, Division of Public Transportation, Columbus, OH (614) 466-8955. *This workbook was utilized at a course on competitive contracting developed for the Ohio DOT. Subjects covered include contract planning, contract solicitation, and contract monitoring and administration.*

Handbook for Competitive Contracting (S.R. Associates, September 1987). Southern California Association of Governments, Los Angeles, CA (213) 236-1800. *Serves as a useful informational and reference resource document for both the public and private sectors in comprehending the requirements, benefits, and procedures associated with contracting for public transit services.*

Contracting Municipal Services, A Guide for Purchase from the Private Sector (John Tepper Marlin, Editor, Ronald Press, 1984). Council on Municipal Performance, New York, NY (212) 730-7930. *Guide to every step of planning and administrating a municipal contract with a private business.*

The Greyhound Rural Connection Marketing Manual (Greyhound Lines, 1988). Greyhound Lines, Inc., Nashville, TN (615) 255-3670. *Contains a sampling of available products and ideas which can be put to work to build ridership through the Greyhound Rural Connection Program.*

Private Sector Briefs (Center for Growth Studies, 1989). Houston Area Research Center, The Woodlands, TX (713) 367-1348. *Brief synopses of successful instances of private sector involvement in public transportation planning, operations and finance.*

Marketing

Marketing Manual for Shared-Ride Taxi Systems in Wisconsin, (DOT-I-87-25, February 1987) provides assistance to local shared-ride taxi systems in preparing and implementing marketing programs.

Transit Marketing in Pennsylvania, (DOT-I-81-36, July 1981) documents effective promotion techniques for use by transit operators in Pennsylvania.

West Virginia Transit Marketing Manual, (DOT-I-85-23, May 1984) summarizes a comprehensive standard marketing program designed for use by small transit properties.

APPENDIX CHAPTER VIII

> Worksheet #1 - "Estimation of Staff Size by Job Function"

> Worksheet #2 - " Job Function Summary"

> Computerized Client Record

> Sample Trip Request Log

> Computerized Trip Request Record

> Sample Driver Log

> Computerized Trip Ticket

> Computerized Vehicle Roster

> Sample "No Show" Notice

> Sample Complaint Report

> Required Section 18 Reports

Monthly Summary of Trip Statistics
Monthly Administrative Assistance Invoice
Monthly Operating Assistance Invoice
UMTA Section 18 Quarterly Report
Quarterly UMTA Section 18 Vehicle Certification
Monthly DBE Program Worksheet

> Community Transportation Resources

> "A Short Guide to Writing Contracts"

> "A Guide to Successful Transportation Services Contract Monitoring"

> "Effectively Marketing Community Transportation"

> "West Virginia Pools Resources to Develop Statewide Marketing Program"

WORKSHEET #1
ESTIMATION OF STAFF SIZE BY JOB FUNCTION

JOB FUNCTION	STAFF TYPE REQUIRED	ESTIMATED HOURS/MONTH	COMMENTS/RESOLUTION
1) Grants Application/ Program Planning			
2) Client Screening/ Eligibility Determination			
3) Trip Reservation			
4) Vehicle Routing/ Scheduling			
5) Vehicle/Equipment Purchase/Maintenance			
6) Insurance/Risk Management/Tranining			
7) Report & Budget/ Accounting			
8) Program/Service Monitoring			
9) Public Relations/ Marketing			
10) Contracting			
11) Service Provision (Drivers)			
12) Other:			
13) Other:			

WORKSHEET #2
JOB FUNCTION SUMMARY

JOB FUNCTION SUMMARY		
STAFF TYPE	REQUIRED HRS/MONTH	RESOLUTION
Administrative		
Supervisory		
Operational		
Clerical		
Other		
TOTAL		

COMPUTERIZED CLIENT RECORD

```
+-PARIS---------------------CLIENT FILE MAINTENANCE--------------- PAR0010 -+
| Last: <[__________________              First: ___________________  MI: _]>|
| ID #: <_______.>                        SS #: <___-__-____-_>    Group? _ |
|-------------------------------------------Page 1 of 4---------------------|
|       ***  HOME ADDRESS  ***           |      *** MAILING ADDRESS ***      |
| Loc:[___]  ___________________         | ____________________________      |
| _____ ____________________             | ____________________________      |
| ___________________________-           | ____________________ ___ _____-____|
| ________________________ ___ _____ ____|                                   |
| Zone:[___.]    Grid X:[___. Y:___.]   | Home Phone: (___) ___-____        |
|                                        | Work Phone: (___) ___-____        |
| Svc Area:[___]  ___________________    |                                   |
| Map Coord: ____     Map Page: ____     | Birthdate:  __/__/____   Age: __. |
|                                        | Sex: _    Salutation: __________  |
| County:  [___]  ___________________    |                                   |
| Urban/Rural:    _ ______               | Disability Description:           |
|                                        |   1) _____________________________|
| Fixed Route Avail? _ Wheelchair?: _    |   2) _____________________________|
| Pass. Type:[___]  ___________________  |   3) _____________________________|
| Dispatch Office: _ __________          |                                   |
+---------------------------------------------------------------------------+
```

```
+-PARIS---------------------CLIENT FILE MAINTENANCE--------------- PAR0010 -+
| Last: <[__________________              First: ___________________  MI: _]>|
| ID #: <_______.>                        SS #: <___-__-____-_>    Group? _ |
|-------------------------------------------Page 2 of 4---------------------|
|       ***  HOME ADDRESS  ***           | Needs1:    [___] ____________________|
| Loc:[___]  ___________________         | Needs2:    [___] ____________________|
| _____ ____________________             | Ethnicity: [___] ____________________|
| ___________________________-           | Language:  [___] ____________________|
| ________________________ ___ _____ ____|                                   |
| Zone:[___.]    Grid X:[___. Y:___.]   | Hearing Impaired? _   Blind? _     |
|                                        |                                   |
| Svc Area:[___]  ___________________    | Directions:                       |
| Map Coord: ____     Map Page: ____     |   1) ____________________________ |
|                                        |   2) ____________________________ |
| County:  [___]  ___________________    |   3) ____________________________ |
| Urban/Rural:    _ ______               |                                   |
|                                        | Comments:                         |
| Fixed Route Avail? _ Wheelchair?: _    |   1) ____________________________ |
| Pass. Type:[___]  ___________________  |   2) ____________________________ |
| Dispatch Office: _ __________          |   3) ____________________________ |
+---------------------------------------------------------------------------+
```

```
+-PARIS---------------------CLIENT FILE MAINTENANCE--------------- PAR0010 -+
| Last: <[__________________              First: ___________________  MI: _]>|
| ID #: <_______.>                        SS #: <___-__-____-_>    Group? _ |
|-------------------------------------------Page 3 of 4---------------------|
|       ***  HOME ADDRESS  ***           |      *** EMERGENCY INFO ***       |
| Loc:[___]  ___________________         | Name:       ___________________   |
| _____ ____________________             | Phone:      (___) ___-____        |
| ___________________________-           |                                   |
| ________________________ ___ _____ ____| Doctor:     ___________________   |
| Zone:[___.]    Grid X:[___. Y:___.]   | Phone:      (___) ___-____        |
|                                        |                                   |
| Svc Area:[___]  ___________________    |                                   |
| Map Coord: ____     Map Page: ____     | Rec Stat:[___] ___________________|
|                                        |                                   |
| County:  [___]  ___________________    | Stat Change: __/__/__ ___. _ _____|
| Urban/Rural:    _ ______               | Entered    : __/__/__ ___. _ _____|
|                                        | Last Edit  : __/__/__ ___. _ _____|
| Fixed Route Avail? _ Wheelchair?: _    | Last Trip  : __/__/__             |
| Pass. Type:[___]  ___________________  |                                   |
| Dispatch Office: _ __________          |                                   |
+---------------------------------------------------------------------------+
```

SAMPLE TRIP REQUEST LOG FOR MANUAL OPERATION

RESERVATIONIST: ____________________ DATE: ____/____/____

Client: ____________________

Trip Origin: ____________________

Trip Destination: ____________________

Svc. Date: __________ M T W TH F S SU

Pickup Time ________ Appt. Time ________ Return Time ________

Needs: Wheelchair Escort Asst.

Comments: ____________________

Client: ____________________

Trip Origin: ____________________

Trip Destination: ____________________

Svc. Date: __________ M T W TH F S SU

Pickup Time ________ Appt. Time ________ Return Time ________

Needs: Wheelchair Escort Asst.

Comments: ____________________

Client: ____________________

Trip Origin: ____________________

Trip Destination: ____________________

Svc. Date: __________ M T W TH F S SU

Pickup Time ________ Appt. Time ________ Return Time ________

Needs: Wheelchair Escort Asst.

Comments: ____________________

Client: ____________________

Trip Origin: ____________________

Trip Destination: ____________________

Svc. Date: __________ M T W TH F S SU

Pickup Time ________ Appt. Time ________ Return Time ________

Needs: Wheelchair Escort Asst.

Comments: ____________________

COMPUTERIZED TRIP REQUEST RECORD

```
+-PARIS-----------------------DAILY TRIP ENTRY---------------------PAR2010---+
| Last:[<_____ First: _____ MI: _>] ID:<_____.>|
| Trip #: <_____.> Return Trip #: _____.  Svc Date: <__/__/__>  Day: ___|
| Requested Pickup: ____ _ Appt: ___. _  Return: ____ _  Dropoff: ___. _ |
|-----------------------------------------Page 1 of 3-----------------------|
|      *** ORIGIN ADDRESS ***              | Svc Area:[___] _____|
| Loc:[___] _____                          | Map Coord: _____  Map Page: _____|
| _____ _____                              | County: [___] _____|
| _____                                    | Urban/Rural: _ Phone: (___)___-____|
| _____ __ _____-____                      |                                  |
| Zone:[___.]  Grid X:[___. Y:___.]        |                                  |
|                                          |                                  |
|   *** DESTINATION ADDRESS ***            | Svc Area:[___] _____|
| Loc:[___] _____                          | Map Coord: _____  Map Page: _____|
| _____ _____                              | County: [___] _____|
| _____                                    | Urban/Rural: _ Phone: (___)___-____|
| _____ __ _____-____                      |                                  |
| Zone:[___.]  Grid X:[___. Y:___.]        |                                  |
| Bill Code:[___] _____                    |                                  |
| Wheelchair? _  Attendant? _  Group? _    |                                  |
+------------------------------------------------------------------------------+
```

```
+-PARIS-----------------------DAILY TRIP ENTRY---------------------PAR2010---+
| Last:[<_____ First: _____ MI: _>] ID:<_____.>|
| Trip #: <_____.> Return Trip #: _____.  Svc Date: <__/__/__>  Day: ___|
| Requested Pickup: ____ _ Appt: ___. _  Return: ____ _  Dropoff: ___. _ |
|-----------------------------------------Page 2 of 3-----------------------|
|      *** ORIGIN ADDRESS ***              | Needs1:  [___] _____|
| Loc:[___] _____                          | Needs2:  [___] _____|
| _____ _____                              | PassType:[___] _____|
| _____                                    | Purpose: [___] _____|
| _____ __ _____-____                      | Auth. #: _____ Disp. Office: _|
| Zone:[___.]  Grid X:[___. Y:___.]        |                                  |
|                                          | Origin Directions:  Print? _|
|   *** DESTINATION ADDRESS ***            | 1) _____|
| Loc:[___] _____                          | 2) _____|
| _____ _____                              | 3) _____|
| _____                                    | Destination Directions:  Print? _|
| _____ __ _____-____                      | 1) _____|
| Zone:[___.]  Grid X:[___. Y:___.]        | 2) _____|
| Bill Code:[___] _____                    | 3) _____|
| Wheelchair? _  Attendant? _  Group? _    |                                  |
+------------------------------------------------------------------------------+
```

```
+-PARIS-----------------------DAILY TRIP ENTRY---------------------PAR2010---+
| Last:[<_____ First: _____ MI: _>] ID:<_____.>|
| Trip #: <_____.> Return Trip #: _____.  Svc Date: <__/__/__>  Day: ___|
| Requested Pickup: ____ _ Appt: ___. _  Return: ____ _  Dropoff: ___. _ |
|-----------------------------------------Page 3 of 3-----------------------|
|      *** ORIGIN ADDRESS ***              | Total Zones: _.  Total Tickets: _.|
| Loc:[___] _____                          | # Reg. Pass: __.  Fare: ___.__/____|
| _____ _____                              | # WC Pass:   __.  Fare: ___.__/____|
| _____                                    | # Escorts:   __.  Fare: ___.__/____|
| _____ __ _____-____                      | Total Pass:  __.  Fare: ___.__|
| Zone:[___.]  Grid X:[___. Y:___.]        | Ret. Prem.: _  DNG Charge: __.__|
|                                          |                                  |
|   *** DESTINATION ADDRESS ***            | Orig.Stat:[___] _____|
| Loc:[___] _____                          | If denied:[___] _____|
| _____ _____                              |                                  |
| _____                                    | Ret. Stat:[___] _____|
| _____ __ _____-____                      | If denied:[___] _____|
| Zone:[___.]  Grid X:[___. Y:___.]        | Date Entered: __/__/__ ___. _ _____|
| Bill Code:[___] _____                    | Last Edited:  __/__/__ ___. _ _____|
| Wheelchair? _  Attendant? _ Group? _     |  Another trip for this client? _ |
+------------------------------------------------------------------------------+
```

MON VALLEY TAXI ---- DRIVER'S REPORT

Date: _____ Driver: _____

Vehicle #	Start	End	Total

Gasoline Vehicle #	Mileage
_____ –	_____
_____ –	_____
_____ –	_____

Start Time _____

End Time _____

Hrs. Worked _____

Passenger Name	ID or Trip #	Trip From	Trip To	Code	In Miles		Time		Fare Pass	State Share	Out Miles		Fare Pass	State Share	Wait Time
					Start	End	Start	End			Start	End			
1.															
2.															
3.															
4.															
5.															
6.															
7.															
8.															
9.															
10.															
11.															
12.															
13.															
14.															
15.															
16.															
17.															
18.															
TOTALS:															

SAMPLE DRIVER LOG

COMPUTERIZED TRIP TICKET

COMSIS Corporation PARIS Development System
DEMAND RESPONSE TRIP 04/16/90 Monday

Disp. Office: 2 Kent County
D. Svc Area : 903 Zip Area 19903

Run : 100A
Carrier: YEL

Trip #: 409

Name: John L. Smith
Phone: (302) 442-2324
Purpose: SHP SHOPPING
Needs 1: CA USES CANE
Needs 2: AS NEEDS ASSISTANCE
PassType: WLK WALKER/CANE

	Requested	Scheduled	# Passengers
PU:	800 A	PU: 815 A	Reg.: 1
			W/C : 0
DO:	845 A	DO: 845 A	Esc : 0

From: HOM HOME ADDRESS
2014 Elm St NW
Dover, Delaware 19903-1347

To: MAL VILLAGE MALL
123 Parkway West
Dover, Delaware 19904

COMPUTERIZED VEHICLE ROSTER

Date: 04/23/90 Run Manifest Page: 1
Time: 09:09 AM Delaware Administration for Specialized Transportation

Service Date: 05/01/90 Tuesday Driver #: 2
Assigned Run: 2P RUN 2P Name: Werley, Robert M.
Assigned Carrier: DELAWARE TRANSIT

Actual Vehicle		Leave Garage	First Pickup	Last Dropoff	Return Garage
_____	Odometer:	_______	_______	_______	_______
	Time:	_______	_______	_______	_______
	Actual Driver:	_____	Check-in: _______	Check-out: _______	
_____	Odometer:	_______	_______	_______	_______
	Time:	_______	_______	_______	_______
	Actual Driver:	_____	Check-in: _______	Check-out: _______	
_____	Odometer:	_______	_______	_______	_______
	Time:	_______	_______	_______	_______
	Actual Driver:	_____	Check-in: _______	Check-out: _______	
_____	Odometer:	_______	_______	_______	_______
	Time:	_______	_______	_______	_______
	Actual Driver:	_____	Check-in: _______	Check-out: _______	
_____	Odometer:	_______	_______	_______	_______
	Time:	_______	_______	_______	_______
	Actual Driver:	_____	Check-in: _______	Check-out: _______	

COMPUTERIZED VEHICLE ROSTER (Cont'd)

Data: 04/23/90 Run Manifest Page: 2
Time: 09:09 AM Delaware Administration for Specialized Transportation

Service Data: 05/01/90 Tuesday Assigned Run: 2P

Time/ PU/DO	Client Name Stop Address / Pass. Code	Passengers / Fares Due Bill Code / Needs	Actual Readings
545 P PU	Luxembocker, Thomas 200 Beach ln Rehoboth, DL 19903 Pass. Code: [A] Att: N	#Reg: 1 Tkts Due: 0 #W/C: 0 Fare Due: 12.00 #Esc: 0 B. Code : PUB Needs1: OXYGEN Needs2:	Status: _____ Time : _____ Odom : _____
600 P PU	Kingsly, Ralph 200 Beach ln Rehoboth, DL 19903 Pass. Code: [A] Att: Y	#Reg: 1 Tkts Due: 3 #W/C: 0 Fare Due: 0.00 #Esc: 0 B. Code : AAA Needs1: WALKER Needs2: OXYGEN	Status: _____ Time : _____ Odom : _____
600 P PU	Kramer, Sandra 200 Beach ln Rehoboth, DL 19903 Pass. Code: [B] Att: N	#Reg: 1 Tkts Due: 0 #W/C: 0 Fare Due: 15.60 #Esc: 0 B. Code : PUB Needs1: OXYGEN Needs2:	Status: _____ Time : _____ Odom : _____
600 P PU	Morley, John 200 Beach ln Rehoboth, DL 19903 Pass. Code: [A] Att: Y	#Reg: 1 Tkts Due: 0 #W/C: 0 Fare Due: 31.20 #Esc: 1 B. Code : PUB Needs1: OXYGEN Needs2:	Status: _____ Time : _____ Odom : _____
645 P DO	Luxembocker, Thomas 200 Virginia Ave Dover, DL 19903 Pass. Code: [A] Att: N	#Reg: 1 Tkts Due: 0 #W/C: 0 Fare Due: 12.00 #Esc: 0 B. Code : PUB Needs1: OXYGEN Needs2:	Status: _____ Time : _____ Odom : _____
211 to Washington Ave. 3 Blocks make right onto Virginia Ave. 3rd House on L.			
645 P DO	Kingsly, Ralph 265 Maryland Ave Dover, DL 19903 Pass. Code: [A] Att: Y	#Reg: 1 Tkts Due: 3 #W/C: 0 Fare Due: 0.00 #Esc: 0 B. Code : AAA Needs1: WALKER Needs2: OXYGEN	Status: _____ Time : _____ Odom : _____
Virgina Ave to Maryland Ave. 3 blocks on right.			
700 P DO	Kramer, Sandra 1567 Main St Dover, DL 19903 Pass. Code: [B] Att: N	#Reg: 1 Tkts Due: 0 #W/C: 0 Fare Due: 15.60 #Esc: 0 B. Code : PUB Needs1: OXYGEN Needs2:	Status: _____ Time : _____ Odom : _____

COMPUTERIZED VEHICLE ROSTER (Cont'd)

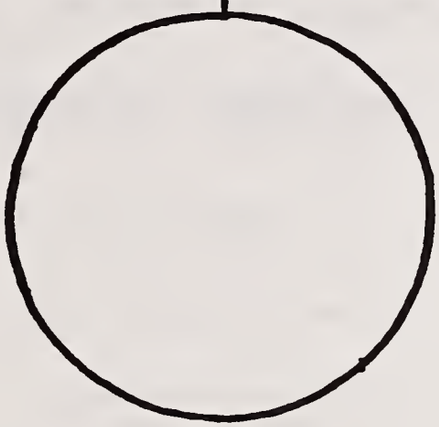
Date: 04/23/90 Run Manifest Page: 3
Time: 09:09 AM Delaware Administration for Specialized Transportation

Service Date: 05/01/90 Tuesday Assigned Run: 2P

Time/ PU/DO	Client Name Stop Address / Pass. Code	Passengers / Fares Due Bill Code / Needs	Actual Readings
700 P	Morley, John	#Reg: 1 Tkts Due: 0	Status: _____
DO	132 Washington Ave	#W/C: 0 Fare Due: 31.20	Time : _____
		#Esc: 1 B. Code : PUB	Odom : _____
	Dover, DL 19903	Needs1: OXYGEN	
	Pass. Code: [A] Att: Y	Needs2:	

Route 211 to Washington Ave. Exit. 5 Blocks make left.

Total Reg Passengers: 4 Total Attendants: 2
Total WC Passengers : 0
Total Escorts : 1 Total Passengers: 7



NO SHOW NOTICE

TO: _____

_____

_____

_____ FROM _____

(Driver) (Taxi Company)

ARRIVED AT _____ ON _____

(Time) (Date)

FOR YOUR SCHEDULED PICKUP BUT FOUND THAT:

- ☐ NO ONE WAS HOME
- ☐ YOU WERE NOT READY TO LEAVE WITHIN 5 MINUTES
- ☐ YOU ELECTED NOT TO GO AND FAILED TO GIVE ADEQUATE CANCELLATION NOTICE
- ☐ OTHER: _____

_____

ADDITIONAL "*NO SHOWS*" MAY RESULT IN TEMPORARY DENIAL OF SERVICE OR "*NO SHOW*" FEE CHARGES.

PLEASE CALL TRANSPOOL AT 223-8747 OR 1-800-331-5058 IF YOU HAVE ANY QUESTIONS OR COMMENTS.

CONFIDENTIAL

Washington County Transportation Program
84 East Beau Street
Washington, Pennsylvania 15301

COMPLAINT REPORT

DATE OF TRIP: _____

DESTINATION: _____

SERVICE PROVIDER: _____

DRIVER: _____

SPECIFIC COMPLAINT:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Please return all complaints to above address
ATTENTION: KATHLEEN J. SASKO

DEFINITIONS/INSTRUCTIONS

1. ORIGINAL or REVISED BUDGET: This is the total amount of local and federal funds allocated to the project and set forth in the project contract. Circle either "Original" or "Revised" depending upon whether the federal dollar amount has been modified at some point after signing the original contract. Enter the dollar amount where indicated by the "$" sign.

2. THIS STATEMENT: This is total expenses per line item that were incurred during the invoice period.

3. EXPENSES TO DATE: This is the total amount of expenses per line item to date, including the amount requested in this invoice.

4. BALANCES: These are the balances of total, local and federal funds remaining in the project. (NOTE: The balances will result from completing Sections 5, 6, 7, 8 and 9.)

5. TOTAL OPERATING: Column 1 will be the total budget amount, Column 2 will be the expenditures this invoice period, Column 3 will be the expenses to date, including the amount listed in this invoice and Column 4 is equal to Column 1 minus Column 3.

6. TOTAL REVENUE: Column 2 is equal to the total of revenues collected during this invoice period. Column 3 equals the total revenues collected, including the amount collected during this invoice period.

7. NET OPERATING: Subtract the revenues in Row 6 from Row 5, Total Operating Expenses. Only Columns 2 and 3 require this action at this point in time.

8. LOCAL SHARE: Column 1 is the local share of the total budget. Column 2 equals 50% of the Net Operating Costs in Row 7. Column 3 is also 50% of the Net Operating costs in Row 7. Column 4 is equal to Column 1 minus Column 3.

9. FEDERAL SHARE: Follow the same procedures used for #8 Local Share, except that Column 1 is the federal share of the funds allocated in your contract.

UMTA SECTION 18 OPERATING ASSISTANCE INVOICE

ORGANIZATION:_____ DATE SUBMITTED:_____
INVOICE FOR PERIOD_____ TO_____ INVOICE NO.:_____
CONTRACT NO.:_____ INVOICE PREPARED BY:_____

ITEM	1. ORIGINAL OR REVISED BUDGET $	2. THIS STATEMENT	3. EXPENSES TO DATE	4. BALANCES
Fuel				
Oil and Lubricant				
Replacement Parts				
Tires				
Maintenance Costs				
License Fees				
Audit				
Vehicle Insurance				
Office Rental				
Postage				
Advertisement				
Printing				
Training				
Supplies				
Utilities (Specify) a. b. c.				
Salaries (Title) a. b. c.				
Fringe Benefits %				
Other (Specify) a. b. c.				
5. TOTAL OPERATING	$	$	$	$
Fares				
Contributions				
Delivery Services				
Contracts				
Revenue from Unrestricted Federal Funding Sources (Specify) a. b. c.				
6. TOTAL REVENUE(-)		($)	($)	
7. NET OPERATING		$	$	
8. LOCAL SHARE (50%)	$	$	$	$
9. FEDERAL SHARE(50%)	$	$	$	$

CERTIFICATION

I Certify that the incurred expenses are true and correct in accordance with the rules and regulations of the UMTA Section 18 Program.

Name:_____ Title:_____
Signature:_____ Date:_____
Address:_____ Telephone No.:_____

DEFINITIONS/INSTRUCTIONS

1. ORIGINAL or REVISED BUDGET: This is the total amount of local and federal funds allocated to the project and set forth in the project contract. Circle either "Original" or "Revised" depending upon whether the federal dollar amount has been modified at some point after signing the Original contract. Enter the total dollar amount where indicated by the "$" sign.

2. THIS STATEMENT: This is total expenses per line item that were incurred during the invoice period.

3. EXPENSES TO DATE: This is the total amount of expenses per line item to date, including the amount requested in this invoice.

4. BALANCES: These are the balances of total, local and federal funds remaining in the project. (NOTE: The balances will result from completing Sections 5, 6 and 7.)

5. TOTAL ADMINISTRATIVE: Column 1 will be the total budget amount, Column 2 will be the expenditures this invoice period, Column 3 will be the expenses to date, including the amount listed in this invoice, and Column 4 is equal to Column 1 minus Column 3.

6. LOCAL SHARE: Column 1 is the local share of the total budget. Columns 2 and 3 equal 20% of the Total Administrative costs in Row 5. Column 4 is equal to Column 1 minus Column 3.

7. FEDERAL SHARE: Column 1 is the federal share of the funds allocated in your contract. Columns 2 and 3 equal 80% of the Total Administrative costs in Row 5. Column 4 equals Column 1 minus Column 3.

UMTA SECTION 18 ADMINISTRATIVE ASSISTANCE INVOICE

ORGANIZATION:_____ DATE SUBMITTED:_____

INVOICE FOR PERIOD_____TO_____INVOICE NO.:_____

CONTRACT NO.:_____INVOICE PREPARED BY:_____

ITEM	1. ORIGINAL OR REVISED BUDGET $	2. THIS STATEMENT	3. EXPENSES TO DATE	4. BALANCES
Vehicle Insurance				
Office Rental				
Postage				
Advertisement				
Supplies				
Utilities (Specify) a. b. c.				
Salaries (Title) a. b. c.				
Fringe Benefits %				
Audit				
Dues and Subscriptions				
Training				
Other (Specify) a. b. c.				
5. TOTAL ADMINISTRATIVE	$	$	$	$
6. LOCAL SHARE (%)	$	$	$	$
7. FEDERAL SHARE (%)	$	$	$	$

CERTIFICATION

I Certify that the incurred expenses are true and correct in accordance with the rules and regulations of the UMTA Section 18 Program.

Name:_____ Title:_____

Signature:_____ Date:_____

Address:_____ Telephone No.:_____

DEFINITIONS - FORM D

1. Vehicle No.: License Plate Number

2. Days of Service: Total number of days each vehicle operated.

3. Hours of Service: Total hours of service provided per vehicle (not hours of operation). Includes deadhead time (time spent between storage and the beginning or end of a transportation route.)

4. Total Passenger Trips: Total number of passenger trips (one-way trips) per vehicle. A passenger trip is defined as the movement of one person from one origin to one destination (i.e., a one-way trip).

5. No. of Trips by Elderly: Total number of passenger trips (one-way trips) by elderly per vehicle. Persons over the age of 60 that are not handicapped.

6. No. of Trips by Handicapped: Total number of passenger trips (one-way trips) by handicapped per vehicle, persons having a physical or mental impairment, that are ambulatory.

7. No. of Trips by Non-ambulatory: Total number of passenger trips (one-way trips) by non-ambulatory per vehicle, persons having a physical or mental impairment and requiring the use of handicapped equipment (i.e., ramp, lifts) in order to access the vehicle.

8. Monthly Vehicle Miles: Number of miles driven per month for each vehicle.

9. Total Miles on Vehicle: Odometer reading at end of month.

10. Revenue Collected: Total revenue collected per vehicle. Include fares, donations and contract revenues.

* To be Returned to NMSHTD with monthly invoice by 10th day of each month.

FORM D

UMTA SECTION 18
MONTHLY SUMMARY OF TRIP STATISTICS
(SYSTEM-WIDE - ALL VEHICLES)

Project Name _____ Month/Year _____

Vehicle No. (License Plate)	Days of Service	Hours of Service	Total Passenger Trips (one way trips)	No. of Trips by Elderly (one-way trips)	No. of Trips by Handicapped (one-way trips)	No. of Trips by Non ambulatory (one way trips)	No. of Trips by Other (one-way trips)	Monthly Vehicle Miles	Total Miles on Vehicle	Revenue Collected
MONTHLY TOTALS	X								X	

* To be returned to the Department of Transportation within 30 days after the close of the quarter.

FORM E

NEW MEXICO
UMTA SECTION 18 QUARTERLY REPORT

Project Name_____ Quarter Ending_____
No. Of Vehicles Operated_____

SYSTEMWIDE DATA	THIS QUARTER	YEAR-TO-DATE
1. Quarterly One-way Passenger Trips:		
Elderly		
Handicapped		
Non-Ambulatory		
Other		
TOTAL PASSENGER TRIPS		
2. Quarterly Vehicles Hours		
3. Quarterly Vehicles Miles Driven		
4. Quarterly Administrative Costs (Include in-kind and volunteer services)		
5. Quarterly Operating Costs (Include in-kind and volunteer services)		
6. Quarterly Project Costs (# 4 plus #5)		
7. Quarterly Revenue:		
Fares		
Donations		
Contracts		
Other		
TOTAL REVENUE		
8. Net Operating Costs (#6 minus #7)		
9. Quarterly Maintenance Costs (Regular maintenance, preventive maintenance)		
10. Quarterly Repair Costs (Unplanned repair costs, not -preventive maintenance)		
11. Cost Per Passenger Trip (#6 divided by #1 Total)		
12. Cost Per Vehicle Hour (#6 divided by #2)		
13. Cost Per Vehicle Mile (#6 divided by #3)		
14. Passengers Per Vehicle Mile (#1 Total divided by #3)		
15. Percent Of Administrative Costs (#4 divided by #6)		
16. Quarterly Fare Recovery Ratio (#7 Total divided by #6)		
17. Have You Added Or Disposed Of Any Vehicles During This Quarter?	_____Yes _____ Added	_____No ____Disposed

If Yes, provide inventory information on Inventory Form F.

_____ Prepared By

_____ Director

_____ Date

_____ Date

*To be returned to to the Department
of Transportation 30 days after the close
of the quarter with quarterly report

Form F

NEW MEXICO
UMTA SECTION 18
VEHICLE CERTIFICATION

Project Name_____ Quarter Ending_____

VEHICLE INFORMATIONS

Year	Make	License Plate No	Current Mileage	If Applicable	
				Vehicle Added	Vehicle Disposed*

I certify that the above vehicles are being used in accordance with the Terms of Agreement of Section 18, contract No._____. Vehicles that have been added or disposed from the inventory this quarter are also noted.

_____ _____
Director Date

*Prior written approval must be obtained from the Department before disposing of any vehicle on which the Department holds a lien.

Disadvantaged Business Enterprise Program Worksheet
Monthly Report for the Period: _____ to _____

Name of Recipient: _____

Address: _____

City/State/Zip: _____

Contact Person: _____

Telephone Number: _____

(COLUMN NAME)	A	B	C	D	E	F	G	H	I	J	K
	Procurement Action	Total Dollars	Federal Percent (50% or 80%)	Total Federal Dollars	UMTA Adjustment (100% or 20%)	Adjusted Dollar Amount	Type of Purchase: Construction; Professional Services; Materials, Supplies, Equipment; or other	DBE	WBE	DBE $	WBE $
Subtotals											
	Number of Actions	$_____		$_____		$_____				$_____	$_____

List of Disadvantaged and Women Business Suppliers

	Contact Person	Name of Organization	Address	City	State	Zip Code	Telephone Number
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							

Your National Community Transportation Resource

The Community Transportation Association of America is a national professional association that promotes mobility as a basic human right offering equal opportunities to people to work, learn, seek medical care, shop and take care of life's most basic needs.

CTAA focuses on improving transportation in rural areas and small cities, and wherever older Americans, persons with disabilities or poor people do not have access to conventional public transit.

Members include public and private transportation systems (including those serving hospitals, nursing homes and human service agencies) local and state officials, researchers, consultants and industry suppliers.

CTAA offers leadership, support, resources and technical assistance to a growing network of locally based organizations contributing to their communities' revitalization and development through transportation. The network includes 5,000 local transit systems serving more than 15 million Americans annually.

The services of CTAA include the following:

PUBLICATIONS

Community Transportation Reporter

CTR is a national magazine providing up-to-the-minute news on legislative and regulatory issues, funding, training, safety, equipment and technical resources.

With a circulation of more than 10,000, this monthly publication serves not only as a major networking tool within the industry, but as an educational resource for decision makers in federal and state agencies and Congress.

Buyers Guide

The August special edition of *CTR* features a *Buyer's Guide* containing the latest information from suppliers on everything from vehicles to software.

Resource Guide

Each January, *CTR* publishes a special *Resource Guide*, that provides information on every aspect of community transportation, including federal funding sources, state aid, technical training and national resources.

CTAA News

You'll be kept abreast of the activities of other CTAA members, committees, special projects and meetings through this monthly member newsletter.

CTAA Congressional Guide

This handy little reference will provide you with all the information you need to communicate effectively with your congressional representatives on important issues. You will learn how to contact them by phone or letter for best results.

TRAINING AND PROFESSIONAL DEVELOPMENT

Community Transportation EXPO

The annual Community Transportation EXPO provides opportunities for professional growth and training. Combining a major trade show and wide variety of training workshops, EXPO is the annual event for the community transportation industry.

Awards

Each year at the EXPO, CTAA presents awards for outstanding service to the industry. Honored each year are outstanding drivers, staff members, volunteers, transit systems, state agencies and state associations.

CTAA Professional Peers

CTAA certifies local transit personnel as experts in various aspects of planning, operations, management, safety and equipment selection. If you have information or have developed a specific program you would like to share with other operators, apply for certification and become a CTAA peer.

CTAA Professional Training

CTAA offers a series of workshops in transportation planning, management and operations to local systems, state departments of transportation and state associations. For a full description of the workshops offered and costs, call or write CTAA.

FIELD SERVICES

National Assistance Hotline

From questions on fundraising to federal regulations, the Hotline has the answers. Just pick up the phone and call toll-free (800) 527-8279. You'll get your questions answered quickly and efficiently.

National Clearinghouse and Resource Center

Publications, human resources, products and training: the national clearinghouse has it all. You'll have access to this wealth of information when you call the Hotline (see above). For printouts and materials, there will be a modest charge to cover the costs of printing and mailing.

Technical Assistance

Staff, peers and consultants will provide you with the services you need to maintain cost effective service delivery, plan for expansion or build transit facilities. Assistance is offered by phone, correspondence or on-site visits.

Rural Lending Program and Financial Packaging

CTAA operates a $3 million revolving loan fund for financing improvements in transportation services or facilities and rural development. Loans are restricted to projects in communities of 25,000 or less population; financial packaging assistance is available to all CTAA members.

PUBLIC POLICY

Policy Development

CTAA conducts research on issues of concern to you and to public policy makers. Members receive analyses and assessments of public policies so that they are better able to make the case for community transportation.

CTAA Alerts

Whenever a legislative or regulatory issue arises that affects community transportation, members receive timely information on such issues through CTAA Alerts. These allow you to have input into issues that will affect you and your transportation system.

COMMUNITY TRANSPORTATION ASSOCIATION OF AMERICA

National Associations and Information/Training Resources

Airport Ground Transportation Assn.
901 Scenic Drive
Knoxville, TN 37919
Phone (615) 525-1108
Fax (615) 522-9663
Exec. Director: Ray Mundy
AGTA Newsletter: Monthly
Purpose: To improve airport ground transportation through training and membership functions.

American Assn. of Retired Persons
1909 K St., N.W.
Washington, DC 20049
Phone (202) 872-4700
Exec. Director: Horace Deets
Modern Maturity: Monthly
Purpose: To serve the needs of the elderly.

American Assn. of State Highway and Transportation Officials
444 N. Capitol St., N.W., Suite 225
Washington, DC 20001
Phone (202) 624-5800
Fax (202) 624-5806
Exec. Director: Francis Francois
AASHTO Journal: Weekly
AASHTO Quarterly: Quarterly
Purpose: To represent highway and transportation agencies and to promote the development of an integrated national transportation system.

American Bus Assn.
1015 15th St., N.W., Suite 250
Washington, DC 20005
Phone (202) 842-1645
Toll-free (800) 283-2877
Fax (202) 887-4970
Exec. Vice President and CEO: George Snyder, Jr.
Destination: Monthly
Scan: Bi-weekly
Purpose: To promote and protect the interests of bus companies, tour operators, suppliers, and motorcoach-oriented travel and tourism organizations.

American Planning Assn.
1776 Massachusetts Ave., N.W., Suite 704
Washington, DC 20036
Phone (202) 872-0611
Exec. Director: Israel Stollman
Planning: Monthly
The Journal of the American Planning Association: Quarterly
Purpose: To serve urban and regional planners.

American Public Transit Assn.
1201 New York Ave., N.W., 4th Floor
Washington, DC 20005
Phone (202) 898-4000
Fax (202) 898-4070
Director of Communications: Dennis Kouba
Passenger Transport: Weekly
Purpose: To represent the transit industry.

American Public Works Assn.
1313 E. 60th St.
Chicago, IL 60637
Phone (312) 667-2200
Fax (312) 667-2304
Exec. Director: Richard Sullivan
APWA Reporter: Monthly
Puplic Works Pro-Views: Quarterly
Purpose: To serve as a common meeting ground for all people and organizations involved in developing, operating, maintaining and managing public-works facilities and services.

American Society of Safety Engineers
1800 E. Oakton
Des Plaines, IL 60018
Phone (312) 692-4121
Exec. Director: Judy Neel
Professional Safety: Monthly
Purpose: Provides public sector oriented safety publications and seminars.

Assn. of American Railroads
50 F St., N.W.
Washington, DC 20001
Phone (202) 639-2100
President and CEO: William H. Dempsey
Rail News Update: Bi-monthly
Purpose: To promote the railroad industry.

Assn. of Transportation Practitioners
1725 K St., N.W., Suite 306
Washington, DC 20006
Phone (202) 466-2080
Exec. Director: E. Dale Jones
Transportation Practitioners Journal: Quarterly
Purpose: To promote the proper administration of the Revised Interstate Commerce Act, related acts and other laws regulating transportation.

Assn. for Retarded Citizens of the United States
1522 K St., N.W., Suite 516
Washington, DC 20005
Phone (202) 785-3388
Exec. Director: Paul Marchand
The Government Report: Bi-weekly
Purpose: To advocate for the rights of people who have developmental disabilites or mental retardation.

Automotive Parts and Accessories Assn.
5100 Forbes Blvd.
Lanham, MD 20706
Phone (301) 459-9110
Fax (301) 459-8145
President: Julian Morris
APAA Report: Bi-monthly
Purpose: To represent companies that manufacture and sell auto parts internationally.

Automotive Parts Rebuilders Assn.
6849 Old Dominion Drive
McLean, VA 22101
Phone (703) 790-1050
Exec. Vice President: William Gager
What's News: Semi-monthly
Purpose: To furnish technical information through seminars and product catalogs and to provide an annual convention and trade show.

Canadian Bus Assn.
170 Metcalf St. Suite 601
Ottawa, Ontario, Canada, K2P 1P3
Phone (613) 238-1800
Fax (613) 235-8304
Exec. Director: Frank Trotter
CBA Newsletter: Quarterly
Purpose: To acquire, compile and distribute information and data of value to motor-coach operators.

Canadian Urban Transit Assn.
55 York St. Suite 901
Toronto, Ontario, Canada, M5J 1R7
Phone (416) 365-9800
Fax (416) 365-1295
Manager of Planning Services: Charles Fitzsimmons
Transit Topics: Monthly
Mobility: Quarterly
Purpose: To be the voice of the transit industry in Canada.

Center for Auto Safety
2001 S St., N.W.
Washington, DC 20009
Phone (202) 328-7700
Exec.Director: Clarence Ditlow
The Lemon Times: Quarterly
Impact: Bi-monthly
Purpose: To advocate for safer vehicles and highways.

National Resources

Commercial Vehicle Safety Alliance
1620 Eye St., N.W., Suite 1000
Washington, DC 20006
Phone (202) 775-8658
Exec. Director: William Fiste
CVSA Newsletter: Quarterly
Purpose: To represent state and provincial agencies responsible for commercial vehicles.

Community Transportation Association of America
725 15th St., N.W. Suite 900
Washington, DC 20005
Phone (202) 628-1480
Fax (202) 737-9197
Exec. Director: David Raphael
Community Transportation Reporter: Monthly
CTAA News: Monthly
Purpose: To improve transportation in rural areas, small cities and among the transportation disadvantaged. CTAA's annual Community Transportation EXPO combines a major trade show and a wide variety of training workshops to provide opportunities for professional growth and advancement within the community transportation industry

Council of State Policy Planning Agencies
400 N. Capitol St., N.W., Rm. 285
Washington, DC 20001
Phone (202) 624-5386
Exec. Director: James Souby
Purpose: A think tank for the nation's governors.

Council on Alternate Fuels
1225 Eye St., N.W., Suite 320
Washington, DC 20005
Phone (202) 898-0711
President: Michael Koleda
Alternate Fuels News: Monthly
Purpose: To serve companies that manufacture alternate fuels and to provide information to the public on alternate fuels.

CTAA Training and Professional Development
725 15th St., N.W. , Suite 900
Washington, DC 20005
Phone (202) 628-1480
Fax (202) 737-9197
Training Director: Charles Dickson
Purpose: To provide training courses in areas of transportation planning, management and operations. The CTAA TransNet is a component of UMTA's national RTAP program that provides peer-to-peer technical assistance in all areas of management and operations.

The Foundation Center
79 5th Ave.
New York, NY 10003
Toll-free (800) 424-9836
President: Thomas Buckman
Purpose: To provide information on foundations nationwide.

Highway Users Federation for Safety and Mobility
1776 Massachusetts Ave., N.W., Suite 500
Washington, DC 20036
Phone (202) 857-1200
President: Lester P. Lamm
At Issue: Quarterly
Purpose: To encourage safe, efficient, economical use of highway transportation.

Institute on Aging
647 Bellamy Bldg.
Florida State University
Tallahasee, FL 32306
Phone (904) 644-2831
Senior Research Associate: Dr. William Bell
Purpose: To conduct research on issues affecting the elderly including social services, transportation and health care.

Institute of Transportation Engineers
525 School St., S.W., Suite 410
Washington, DC 20024
Phone (202) 554-8050
Fax (202) 863-5486
Exec. Director: Thomas Brahms
ITE Journal: Monthly
Purpose: To provide technical information and assistance to transportation engineers and the public.

Insurance Institute for Highway Safety
1005 N. Glebe Road, Suite 800
Arlington, VA 22201
Phone (703) 247-1500
President: Brian O'Neill
Status Report: Monthly
Purpose: To help reduce losses that result from motor vehicle collisions.

International Taxicab Assn.
3849 Farragut Ave.
Kensington, MD 20895
Phone (301) 946-5701
Director of Research: Greg Davis
Taxicab Management: Quarterly
Dispatch Newsletter: Monthly
Purpose: To represent the interests of the for-profit ground transportation industry.

McTrans Center
University of Florida
512 Weil Hall
Gainesville, FL 32611
Phone (904) 392-0378
Purpose: To provide information on microcomputers in transportation.

Motor Vehicle Manufacturers Assn.
7430 2nd Ave., Suite 300
Detroit, MI 48202
Phone (313) 872-4311
Fax (313) 872-5400
Chief Exec. President: Thomas Hanna
Purpose: To represent U.S. manufacturers of cars, trucks and buses.

National Assn. of Area Agencies on Aging
600 Maryland Ave., S.W., Suite 208W
Washington, DC 20024
Phone (202) 484-7520
Exec. Director: Jonathan D. Linkous
Network News: Monthly
Purpose: To disseminate legislative information to local area agencies on aging.

National Assn. of Counties
440 1st St., N.W.
Washington, DC 20001
Phone (202) 393-6226
Fax (202) 393-2630
Exec. Director: John Thomas
County News: Semi-monthly
Purpose: To represent 3,000 county governments in the nation's capitol.

National Assn. of Neighborhoods
1651 Fuller St., N.W.
Washington, DC 20009
Phone (202) 332-7766
Exec. Director: Marla Anderson
NAN Bulletin: Quarterly
Purpose: To provide technical assistance to small businesses and community organizations who are interested in participating in UMTA's Entrepreneurial Services Program.

National Assn. for Pupil Transportation
P.O. Box 745
East Moline, IL 61244
Phone (309) 755-1060
Exec. Secretary: Paula Hanna
NAPT Newsletter: Quarterly
Purpose: To represent school districts in the U.S. and Canada who own and operate their own school bus fleets.

National Assn. of State Units on Aging
2033 K St., N.W., Suite 304
Washington, DC 20006
Phone (202) 785-0707
Exec. Director: Daniel Quirk
Purpose: To serve the state units on aging and the elderly.

National Assn. of Towns and Townships
1522 K St.,N.W., Suite 730
Washington, DC 20005
Phone (202) 737-5200
Exec. Director: Jeffrey H. Shiff
Purpose: To serve small town officials by keeping them aware of federal issues that impact small towns.

National Clearinghouse for Alcohol and Drug Information
P.O. Box 2345
Rockville, MD 20852
Phone (301) 468-2600
Prevention Pipeline: Bi-monthly
Purpose: To disseminate informational materials on alcohol and drug abuse.

National Conference of State Legislatures
444 N. Capitol St. Suite 500
Washington, DC 20001
Phone (202) 624-5400
Exec. Director: William Pound
State Legislatures: Monthly
Federal Update: Bi-weekly
Purpose: To represent the 50 state legislatures.

National Council of Senior Citizens
925 15th St., N.W.
Washington, DC 20005
Phone (202) 347-8800
Exec. Director: Lawrence Smedley
Senior Citizens News: Monthly
Purpose: An advocacy organization for senior citizens.

National Council on the Aging
600 Maryland Ave., S.W., W. Wing 100
Washington, DC 20024
Phone (202) 479-1200
Exec. Director: Dr. Daniel Thursz
Perspective on Aging: Bi-monthly
Current Literature on Aging: Quarterly
Purpose: To serve professionals who work in the field of aging.

National Governors Assn.
444 N. Capitol St., N.W.
Washington, D.C. 20001
Phone (202) 624-5300
Exec. Director: Raymond Sheppach

National League of Cities
1301 Pennsylvania Ave., N.W.
Washington, DC 20004
Phone (202) 626-3000
Fax (202) 626-3043
Director: Alan Beals
Nation's Cities: Weekly
Purpose: To represent municipal governments in matters of federal policy affecting cities and towns.

National Safety Council
444 N. Michigan Ave.
Chicago, IL 60611
Phone (312) 527-4800
President: T.C. Gilchrest
Purpose: To educate and influence society to adopt safety and health policies.

National School Transportation Assn.
P.O. Box 2639
Springfield, VA 22152
Phone (703) 644-0700
Exec. Director: Karen Finkel
National School Bus Report: Quarterly
Purpose: To represent school bus contractors in matters before congress and federal regulatory agencies.

National Tire Dealers and Retreaders Assn.
1250 Eye St., N.W.
Washington, DC 20005
Phone (202) 789-2300
Toll-free (800) 876-8372
Fax (202) 682-3999
Exec. Director: Philip Friedlander, Jr.
Dealer News: Monthly
Membergram Newsletter: Monthly
Purpose: To provide educational resources, health insurance and other support to independent dealers and retreaders.

National Tour Assn.
546 E. Main
Lexington, KY 40508
Phone (606) 253-1036
Fax (606) 231-9837
Exec. Director: Hank Phillips
Tuesday: Bi-weekly
Courier: Monthly
Tours: Quarterly
Purpose: To provide consumer protection and a code of ethics for tour operators and suppliers.

National Organization on Disability
910 16th St., N.W., Suite 600
Washington, DC 20006
Phone (202) 293-5960
Fax (202) 293-7999
President: Alan Reich
Report: Quarterly
Purpose: To bring disabled persons into full participation in American life.

Paralyzed Veterans of America
801 18th St., N.W.
Washington, DC 20006
Phone: (202) 872-1300
Toll-free (800) 424-8200
Fax (202) 785-4452
Exec. Director: R. Jack Powell
Paraplegia News: Monthly
Sports and Spokes: Bi-Monthly
Purpose: To serve paraplegic veterans.

Pennsylvania Transportation Institute
Research Bldg. B
Pennsylvania State University
University Park, PA 16802
Phone (814) 865-1891
Fax (814) 865-3039
Director: J. J. Henry
Purpose: To conduct research in the field of transportation including rural transit. Operates UMTA's bus-testing facility at Altoona, Pa.

Public Private Transportation Network
Comsis Corporation
8737 Colesville Road, Suite 1100
Silver Spring, MD 20910
Phone (301) 588-0800
Toll-free (800) 522-PPTN
Fax (301) 588-5922
Senior Analyst: Hal Morgan
PPTN Network News: Monthly
Purpose: To provide technical assistance on privatization in the transit industry.

Public Risk and Insurance Management Assn.
1117 N. 19th St., Suite 900
Arlington, VA 22209
Phone (703) 528-7701
Fax (703) 528-7966
Director: Bradley Johnson
Public Risk: Bi-monthly
RiskWatch: Bi-weekly
Purpose: To promote professionalism in matters of risk management throughout public agencies.

RTAP National Resource Center
Community Transportation Assn. of America
725 15th St., N.W., Suite 900
Washington, DC 20005
RTAP Hotline (800) 527-8279
RTAP On-Line (202) 628-2537 (modem)
Coordinator: Chris Zeilinger
Purpose: A national clearinghouse for the community transportation industry that includes a toll-free information hotline and

a comprehensive electronic bulletin board service.

Statewide Transportation Programs
University of Wisconsin-Milwaukee
P.O. Box 413
Milwaukee, WI 53201
Phone (414) 229-4422
Contact: Christine Alaspa
Purpose: To provide transportation training courses and materials.

Technology Sharing Program
Office of Research & Tech, U.S. DOT
400 7th St., S.W., DRT-1
Washington, DC 20590
Phone (202) 366-4997
Fax (202) 366-3272
Contact: Norm Paulhus
Purpose: To provide information and publications to the transportation industry.

Transportation Accounting Consortium
Michigan Dept. of Social Services
P.O. Box 30037, Suite 212
Lansing, MI 48909
Phone (517) 373-8059
Contact: Ken Malkowski
Purpose: To provide transportation accounting information.

Transportation Institute
5201 Auth Way, 5th Floor
Camp Springs, MD 20746
Phone (301) 347-2590
Fax (301) 423-0634
President: James L. Henry
Purpose: To provide research and education to the maritime industry.

Transportation Research Board
2101 Constitution Ave., N.W.
Washington, DC 20418
Phone (202) 334-2934
Toll-free (800) 424-9818
Fax (202) 334-2003
Exec. Director: Thomas Deen
T.R. News: Bi-monthly
Purpose: To expedite the flow of research in and for the transportation industry.

Transportation Safety Institute
Mass Transit Safety and Security Division
6500 S. MacArthur Blvd., DMA-610
Oklahoma City, OK 73125
Phone (405) 680-3153
Fax (405) 680-3521
Manager: Robert Lower
Purpose: To provide transportation training courses and materials.

Travel Industry Assn. of America
1133 21st St., N.W.
Washington, DC 22036
Phone (202) 293-1433
Fax (202) 293-3155
President: Edward Book
Newsline: Monthly
Purpose: To provide the travel industry with news, information and legislative insights.

Urban Mass Transportation Research Information Service (UMTRIS)
Transportation Research Board
2101 Constitution Ave., N.W.
Washington, DC 20418
Phone (202) 334-3250
Fax (202) 334-2003
Manager: Suzanne Crowther
Urban Transportation Abstracts: Semi-annual
Purpose: Maintains on-line database of abstracts of technical papers, journal articles, research reports and statistical sources in transit.

U.S. Dept. of Agriculture
Office of Transportation

P. O. Box 96575
Washington, DC 20090-6575
Phone (202) 653-6305
Fax (202) 653-6327
Administrator: Martin Fitzpatrick
Purpose: To provide technical and administrative direction, coordination and leadership in the development and execution of the agricultural and rural transportation policies and programs of USDA.

United Bus Owners of America
1300 L St., N.W., Suite 1050
Washington, DC 20005
Phone (202) 484-5623
Toll-free (800) 424-8262
Fax (202) 898-0484
Exec. Director: Wayne J. Smith
The Docket: Bi-weekly
Purpose: To provide support and a legislative voice for bus owners before regulatory bodies.

United Way of America
701 N. Fairfax St.
Alexandria, VA 22314-2045
Phone (703) 836-7100
Fax (703) 683-7840
Exec. Director: William Aramony
Community: Quarterly
Innovations For a Second Century: Bi-monthly
Purpose: To help meet health and human care needs through a vast network of local charitable groups and volunteers.

The University of Kansas Transportation Center
2011 Learned Hall
The University of Kansas
Lawrence, KS 66045
Phone (913) 864-5655
Fax (913) 864-3199
Contact: Pat Weaver
PC-Transmission: Monthly
Kansas Trans Reporter: Quarterly
Purpose: To provide information on transportation with concentrations on rural transportation and computers in transportation.

University Research Corporation
7200 Wisconsin Ave., Suite 600
Bethesda, MD 20814-4820
Phone (301) 654-8338
Fax (301) 654-5976
Senior Vice President: Sheldon Steinberg
Purpose: Prepares training modules and materials for the national RTAP program.

Industry Publications

The Bus Operator
Tom Jackson and Associates
1210 8th Ave. S.
Nashville, TN 37203
(615) 242-7747
Bi-monthly

Bus Ride
Friendship Publications, Inc.
P.O. Box 1472
Spokane, WA 99210
(509) 328-9181
8 times annually

Community Transportation Reporter
CTAA
725 15th St., N.W., Suite 900
Washington, DC 20005
(202) 628-1480
Monthly

Mass Transit
PTN Publishing Company
210 Crossways Park Drive
Woodbury, NY 11797
(516) 496-8000
Monthly

Metro
Bobit Publishing Company
2512 Artesia Blvd.
Redondo Beach, CA 90278
(213) 376-8788
7 times annually

Passenger Transport
American Public Transit Assn.
1201 New York Ave., N.W.
Washington, DC 20005
(202) 898-4000
Weekly

School Bus Fleet
Bobit Publishing Company
2512 Artesia Blvd.
Redondo Beach, CA 90278
(213) 376-8788
6 times annually

TR News
Transportation Research Board
2101 Constitution Ave., N.W.
Washington, DC 20418
(202) 334-2933
Bi-monthly

Taxicab Management
International Taxicab Assn.
3849 Farragut Ave.
Kensington, MD 20895
(301) 946-5700
Semi-annual

Transportation Quarterly
Eno Foundation for Transportation
Box 2055
Westport, CT 06880
(203) 227-4852
Quarterly

MYTH 2: The more competition the better.

EXPERIENCE: Private contractors need a certain volume of business to make participation feasible. If the market is divided into too many segments, no one can make a profit.

MYTH 3: Contracting to private operators always reduces costs and government growth.

EXPERIENCE: The large initial investment for specialized equipment means that often a limited number of local firms have the potential for providing services. This shortage of available or interested operators gives government agencies little choice when choosing operators and no means of replacing unsatisfactory ones.

MYTH 4: Competition is the main mechanism for holding down costs and upgrading transportation services.

EXPERIENCE: Evidence suggests that traditional economic doctrines about competition do not apply to contracting out. A shortage of responsive, responsible providers makes effective competition difficult. Local officials often lack the desire or ability to create a competitive environment.

MYTH 5: Supply and demand conditions must be independent for competition to be successful.

EXPERIENCE: Providers create and shape needs. Consumers seldom enter the market place with a desire for a particular service. Providers use information and specialized equipment to mold preferences.

We need further study both of the benefits of private sector contracting and the role of nonprofits. In the meantime, however, we must be sensitive to both sides of the argument. Only when each participant understands the goals and constraints of the other can a successful contractual relationship be established.

For more information or the complete guidelines below, contact Dave Cyra, University of Wisconsin - Ext., Statewide Programs, Milwaukee, WI 53201. Tel: (414) 963-4427.

A Short Guide to Writing Contracts

The success of a private/public partnership depends on a well-written contract. Suggestions for writing effective contracts follow.

Write clear, fair contracts.

Contracts must be all-inclusive and very specific. Don't make general references to compliance and expect private operators to know what you want. Help providers achieve compliance by determining all possible factors in advance; licensing regulations, for example, should be discussed during the planning stages. Keep the size of the service area reasonable and make the contract period long enough so that operators can spread out the cost of capital expenditures.

Be as open as possible.

Tell operators the history of the program and the reason for soliciting bids. Operators will also need to know about capital investment requirements, payment schedules, profitability ceilings, amount of paperwork involved, training and insurance requirements, union stipulations, depreciation periods, and marketing requirements. Openness at the beginning is the groundwork for successful communication throughout the contractual relationship.

Request qualifications and visit sites.

Qualifications should include strong financial statements, documented training and maintenance procedures, and the ability to meet insurance requirements and keep proper records. Review the operator's current accounting procedures. Operators should also submit a list of current customers. Site visits should include thorough inspections of maintenance facilities and interviews with staff. If subcontracts are proposed, visit those sites.

Demand high, but reasonable, service standards.

Monitor driver training and performance; standards should be clearly delineated in the contract. Equipment should have low maintenance, good fuel economy, and the capacity to match ridership. Assign costs to specific indicators of performance failure in the contract. Make sure, however, that you are very specific about what will be considered a failure to comply. For example, will the operator be penalized if a heater is broken for one day or for a week?

Keep record-keeping simple but thorough.

Don't make accountability so arduous that extra costs are created. Records should reflect performance and actual costs. Reduce the demand for information collection at the operator's end and try to fit accounting requirements into the operation's existing system.

For more information, consult the following publications:

Taxi-Based Special Transit Services. Institute of Transportation Studies at the University of California—Irvine. 1983. 111 pp. $18.95. PB84-101625.

Taxicabs as Public Transit. Public Technology, Inc. 1980. 39 pp. $9.95. PB82-154055.

Taxis, The Public and Paratransit: A Coordination Primer. Multisystems, Inc. 1978. 170 pp. $22.95. PB85-214286.

To order, contact the National Technical Information Service, Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161. Tel:(703) 487-4650.

A GUIDE TO

SUCCESSFUL

TRANSPORTATION SERVICES

CONTRACT MONITORING

Public Private Transportation Network

July 1989

This Document was Written for the

Public-Private Transportation Network (PPTN)
An UMTA Sponsored Technical Assistance Program

PPTN
is managed by

COMSIS Corporation
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Silver Spring, Maryland 20910

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A GUIDE TO
SUCCESSFUL TRANSPORTATION SERVICES CONTRACT MONITORING

Introduction

With the encouragement state and federal governments, an increasing number transportation agencies are contracting various on-street transportation services to the private sector. It is incumbent upon the sponsoring agency, whether it be a public transit or non-profit agency, to insure that the services provided meet user needs and comply with contractual requirements. This includes service quantity, quality, safety and courtesy, asset maintenance and reporting requirements.

Exact needs will vary by the specifics of the service contracted. Considerations include:

- Agency Size
- Type of Service Contracted
  (e.g., demand-response vs. fixed-route vs. client transportation)
- Size of Contract
  (measured by the number of vehicles, service hours or service miles)
- Mix of Contracted vs. In-House Services
- Assets Provided by the Contractor and Agency
- Used vs. New Vehicles
- Capabilities of the Sponsoring Agency
- Contract Arrangements
  (e.g., payment basis, contractor handling of fare revenue, other)

The contracting agency should weigh each of these when designing its monitoring program. The following sections outline approaches to insure service quality and quantity without undue cost.

Starting Point: The Procurement Process

A pro-active approach to service monitoring will help avoid the need to employ sanctions or legal remedies. The procurement process itself is the beginning point of this activity. Agencies must include their exact needs, requirements and sanctions in the procurement documents to avoid ambiguity and clearly define responsibilities. These may include, but are not limited to:

- Personnel Needs, Qualifications and Training
- Facilities and Equipment
- Responsibility for Major Vehicle Maintenance
- Safety Programs
- Reporting Requirements
- Service Standards
- Incentives and Sanctions (penalties) for Non-Compliance (based on clearly-defined service standards)
- Payment Basis and Timetable

The above must be incorporated into the contract document itself in their final form. It is not unusual to negotiate final requirements with the selected contractor. Failure to incorporate these in the contract will impinge on the agency's ability to enforce the contract and insure that services are properly delivered.

Overview

The best method to ensure proper contract performance is to monitor the contractor on a continual basis. This need not be an exhaustive, expensive exercise, especially if a 'willing and able' contractor has been chosen through a well-run solicitation/selection process. It is not a reactive program, but one which is considered throughout every step throughout the process leading to a contract. The procurement document and resulting contract should clearly outline service standards and reporting requirements.

Proper monitoring will not only assure administrative compliance, service quality and service quantity, but should concurrently be a means to identify problems. The objective

is to improve transit services, not punish the contractor. Problem identification should lead to discussions to resolve any problem reasonably and promptly. The contractor must be involved in appropriate discussions for this goal to be achieved. Only after the contractor is unable or unwilling to correct deficiencies should penalties be applied.

Data

Information is the key to effective monitoring. Information requirements will vary by the type of service, agency practice, Section 15 requirements (urban properties only), state and local reporting needs, extent of agency contracting, planning needs, incentives & penalties and marketing programs. Existing data sources should be examined and used whenever possible. Scheduling information; client counts by counselors, street supervisors, and checkers; planning and marketing surveys; etc. may all be accessed for unbiased, accurate information. Further or specialized needs may be met by requiring the contractor to periodically supply information in a pre-established form. This becomes a basis for a three-step performance monitoring process.

Monitoring Means - Exception Basis

Performance monitoring is best performed on an exception basis to minimize costs and avoid interference with efficient operations practices. Well-run services which meet agency requirements will require fewer efforts than a problem operation.

A three step process is recommended to monitor the services.

Step 1. Reports

Contractors should periodically report to the agency on a variety of topics. This report, usually on a monthly basis, is in a pre-agreed format with established information. Complete reports are especially important when the agency operates little or no service itself, and therefore has limited first-hand knowledge of actual service conditions. A professional transit contractor will periodically measure his performance in a continual process of improving service and reducing costs.

Only relevant data should be required in these reports, as superfluous data collection only raises both contractor and agency costs. Reports usually encompass some or all of the

items below. Note that this list was compiled for agencies which lease their vehicles to the contractor and require extensive data reporting. Small contracts, and those for which the contractor's vehicles are used, require less information.

Common Data Needs

- o Measures for Incentives and Penalties
- o Operating Data
  - Miles and Hours
    - oo Total and revenue
    - oo Platform, if a payment or measurement basis
    - oo By vehicle (public vehicles used) and total
  - Ridership
    - oo Fare category
    - oo Wheelchair vs. non-wheelchair
  - Service Quality Measures
    - oo On-time performance
    - oo Passenger Complaints
    - oo Trips completed/missed; ratio; explanation
  - Efficiency Measures
    - oo Passenger mile data (if required for Section 15 reports)
    - oo Appropriate measures such as passengers per mile, hour or vehicle trip
    - oo Cost parameters, such as cost per passenger, mile or hour of service, as appropriate
  - Fare Revenue
    - oo By category, if applicable
  - Customer Input & Contractor Findings
- o Maintenance Data
  - Updated Fleet Listings
  - Overview of Maintenance Activities
    - oo PMI's and major repair work

- Warranty Activity
    - oo Overview and any share of warranty reimbursement due the public agency
- Fleet Availability
    - oo Number of vehicles available for service, noting any variations from contract requirements
- Fluids Consumption (by vehicle and fleet for public vehicles)
- Personnel and Work Force Composition
- Air Conditioning and Heater Functioning

o Other

- Accident/Incident Briefs
    - oo This generally includes findings, effects on passengers and actions taken. The contractor is usually required to make determinations as to accident preventability according to agency or National Safety Council guidelines.
- Training
- Key Personnel Changes
- Suggested Improvements - service, safety, other
- Accounting Information (cost-plus-fixed-fee contracts)
- Goals and Accomplishments
- Agency Property Status
- Survey Data
- Special Topics

Monthly reports are generally sufficient and cost effective to meet agency concerns. More frequent reporting, while perhaps desirable, will increase costs to all parties. All reporting requirements should be outlined in the solicitation document and incorporated into the final contract.

Step 2. Periodic Meetings

The second component of the monitoring plan is communication. A monthly

meeting is recommended to discuss the contractor's report and topics of mutual concern, Dialogue is useful to explain data, anticipate problems, resolve differences and improve service. A relatively unstructured format is also recommended to foster two-way communication and focus on problem resolution.

Participants should include the contractor's resident manager and relevant senior personnel. Agency personnel should include the designated point of contact (COTR) and other appropriate persons. Contractor central office staff are usually included only when amendments or serious problems will be discussed.

Step 3. Field Checks

The final component of a complete monitoring program is verification of contractor performance by agency personnel or representatives. Field checks and site visits serve to confirm data gathered by the contractor or others. They are generally limited in number, designed to spot-check performance when the agency is pleased. Problem areas may require more detailed investigation, including statistically valid surveys, performance audits and investigative activities. Care must be taken to not interfere with the contractor's normal conduct of his business or cause unnecessary costs. Monthly visits to the contractor's operations base are reasonable.

Field checks may be combined with other agency activities whenever possible. These may include planning department, MPO or other surveys; use of existing street supervisors and checkers; customer input investigations; liaison with other entities serviced by the operation; visits to contractor facilities; etc. The use of covert and overt ride checks is certainly possible, especially when deficiencies are suspected. It is important to utilize unbiased, trained personnel for this activity. If properly trained personnel (e.g., for checking maintenance of publicly-owned vehicles) are not immediately available, the agency should consider acquiring expertise from outside sources.

Common field checks encompass:

- o On-Road Service Quantity and Quality Sampling
  - On Time Performance
  - Courtesy & Attire
  - Ride Time (demand-response services)

- Vehicle Appearance
- Safety Checks

o Site Checks
- A/C and Heater Tests
- Facilities Maintenance
- Safety Equipment
- Vehicle Maintenance and Other Records
- Vehicle Inspections and Comparison Against Required Maintenance Activities
- Environmental Requirements (eg., underground tanks, emissions standards)
- Agency Property Status

o Passenger Surveys

o Financial Audits

- These are generally performed at the end of a contractor's service period and no more frequently than annually. Cost-plus-fixed-fee contracts, if ever utilized, should be monitored more closely through data inclusion in monthly reports. Most transit operations contracts are of a fixed or fixed-unit-cost basis and require little financial monitoring.

  The use of reimbursement per vehicle mile payment basis requires that vehicle mileage be carefully checked to insure payment only for allowable miles.

  Urban properties must gather certain financial information for UMTA Section 15 reports. This may be done through contractor submittal of audited financial statements corresponding with the agency's fiscal year.

o Telephone Inquiries
- Insurance Status
- Licensing and Certifications

oo Local Business

- oo State Operating Rights
- oo Vehicles
- Credit Status with Vendors

o Trip Verification (demand-response and client transportation systems)

- This entails the random telephone survey of 5 to 10 percent of daily riders to verify that trips were taken and to inquire about service quality. The technique may be valid in large, multiple provider or scrip-based systems. Experience shows that such inquiries are very useful to the sponsoring agency, but that they must be made within one week of the passenger trip. Call-takers could perform this function at little or no additional cost.

  Telephone trip verification inherently requires that ridership and client data be available to the agency on a prompt basis. Use of interactive data bases and scheduling systems enable this process to be accomplished smoothly.

Cost

The cost of performance monitoring should be minimized to protect the cost savings obtained through contracting. Typical monitoring costs total 3 to 7 percent of a contractor's annual value. Activities costing less than 3% may be inadequate to protect the agency. Costs exceeding 7% should be investigated as potentially unproductive or indicative of contractor problems.

These guidelines are based on a fully-allocated costing process for agency costs. Accordingly, they are not necessarily in addition to current agency administrative/ monitoring costs. Exact costs should be carefully weighed before the solicitation document is released. Contractor costs of complying with a monitoring program are not included in the 3 to 7 percent guideline, but should also be considered. The public agency bears the cost of contractor compliance through an increased bid price. A balance between contractor requirements and agency activities, coupled with a reliable private operator, will minimize costs and protect the public.

Contractor Self-Monitoring

Good management policy links the contractor and agency to create common goals. Linkage may be achieved through:

- o Tying Reimbursement to Service Quality
  - Incentives
    - oo Payment per passenger, bonuses for exceeding parameters such as roadcall intervals, passengers per hour, revenue as a result of contractor marketing, etc.
  - Gain-Sharing
- o Use of Privately Owned Vehicles for Other Services
  - Drivers compensated for charter services sold
  - Vehicles may be maintained to higher standards
  - Reduces charges to agency for capital assets
- o Ongoing Dialogue
- o Potential for Contract Option Years

Summary

Contract monitoring is an important component of a successful public-private partnership, but it need not be an extensive or consuming activity for either party. The techniques presented in this paper are useful tools which must be implemented with concern for the cost to each party and the degree of trust between the agency and its contractors.

The best tool to insure performance is the choice of a 'willing and able' contractor: one that will share the professional concerns of the agency and perform accordingly. It may be appropriate to not choose the lowest cost contractor if that cost is considered insufficient to render the required services.

Three steps are recommended to ensure proper performance at minimum cost after the contract begins:

Step 1. Use of Periodic Reports

Step 2. Periodic Meetings

Step 3. Field Checks

Should performance be inadequate, appropriate steps must be immediately taken to correct deficiencies. This is when having a "willing and able" contractor and the contractual means to force proper behavior becomes vital. The objective remains to deliver the proper services, not to berate the contractor. The agency, however, has the ultimate responsibility to ensure contract performance.

Appendices

Primary Agency Monitoring Actions

- o Include needs in procurement and contract documents
- o Designate appropriate personnel
- o Require and Screen reports
- o Conduct contractor meetings
- o Spot-check performance
- o Conduct field checks as necessary
- o Review citizen and rider input
- o Special data collection/reports
- o Monitor/audit fare receipts
- o Investigate insurance coverages and licenses

Information Needs Checklist

1. Measures for Incentives and Penalties

2. Operating Data
   - Miles and Hours
     - Total, Revenue, Platform

3. Ridership
   - Fare category
   - Wheelchair vs. non-wheelchair

4. Service Quality Measures
   - On-time performance
   - Passenger Complaints
   - Trips completed/missed

5. Efficiency Measures
   - Passenger mile data (if required for Section 15 reports)
   - Passengers per mile, hour or vehicle trip
   - Cost parameters, such as cost per passenger, mile or hour of service

6. Fare Revenue

7. Customer Input & Contractor Findings

8. Maintenance Data
   - Updated Fleet Listings
   - Overview of Maintenance Activities
   - PMI's and major repair work
   - Fleet Availability
   - Warranty Activity
   - Air Conditioning and Heater Functioning
   - Fluids Consumption (by vehicle and fleet for public vehicles)

9. Personnel and Work Force Composition

10. Other
    - Accident/Incident Briefs
    - Training
    - Suggested Improvements - service, safety, other
    - Accounting Information (cost-plus-fixed-fee contracts)
    - Goals and Accomplishments
    - Agency Property Status
    - Survey Data

11. Special Topics

Field Checks Listing

1. On-Road Service Quantity and Quality Sampling
    - On Time Performance
    - Courtesy & Attire
    - Ride Time (demand-response services)
    - Vehicle Appearance
    - Safety Checks

2. Site Checks
    - A/C and Heater Tests
    - Facilities Maintenance
    - Safety Equipment
    - Vehicle Maintenance and Other Records
    - Vehicle Inspections
        - Comparison Against Required Maintenance Activities
        - Quality of Work
        - Overall Fleet Condition
    - Environmental Requirements
        - Underground tanks
        - Emissions standards)
    - Agency Property Status and Condition

3. Passenger Surveys

4. Financial Audits
    - Monthly (cost + fixed fee)
    - Quarterly (cost + fixed fee)
    - Annual
    - End of Contract (local or state requirement?)

5. Telephone Inquiries
    - Insurance Status
    - Licensing and Certifications
        - Local Business
        - State Operating Rights
        - Vehicles
    - Credit Status with Vendors

6. Trip Verification (demand-response and client transportation systems)

7. Section 15 Reporting Requirements

8. State Reporting Requirements

EFFECTIVELY MARKETING COMMUNITY TRANSPORTATION

by Bob Prowda

Many people confuse marketing with advertising. That's because the most influential and visible part of marketing is media advertising.

Marketing, however, is much more than advertising. For community transit agencies, marketing is about improving transit services.

Marketing can be defined as a set of carefully planned activities developed to meet specific goals. These goals may concern retaining present riders, attracting new riders or increasing local revenue. Marketing involves boosting transit's image and appeal, gaining positive media coverage and establishing the value of the service to community leaders.

Places To Go
ngs To Do
e To See?

Retaining Ridership

Every agency providing services to the general public must be concerned with retaining current customers. Even people considered transit-dependent have options: to not make the trip or to get a ride from a friend or relative. It is far easier, and less expensive, to keep a current customer than to replace a lost one with a new one.

Some of the keys to retaining riders are friendly drivers and front-line transit staff and regular communication with riders through means such as a newsletter.

One of the best ways to keep customers is to keep in tune with their needs. Ride the bus. Talk with riders, answer questions and ask them what they need or would like to see improved. This personal touch can win a lot of friends!

Attracting New Riders

Marketing activities that can be used to attract new customers to the agency include advertising, special promotions or mailings. They may be organized to improve ridership on a route, on a group of routes, in a particular type of service or system-wide.

Attracting new riders is one of the most expensive elements of a marketing program. Before planning any new rider advertising or promotional campaign, it is useful for a transit manager to examine the following questions.

Do we look appealing to potential customers?

Image is important. Vehicle color scheme, driver attire, bus-stop signs, shelters and timetables must look professional, and attractive. All of those elements define your image, or public perception. A positive image will be necessary in order for potential riders to consider using the service.

Do people believe that our service is available to the general public?

Some agencies have trouble attracting new riders, because the public perceives the service as reserved for disabled or elderly persons.

Is route and schedule information easy to obtain?

This information must be easy-to-read and easy to understand. It must also be readily available at local businesses, places where people frequently shop, work or play.

Do we answer the phone?

You would be surprised how many agencies have inadequate phone coverage or poorly-trained phone operators. Phones need to be answered quickly and professionally. A friendly voice and the right information often will convince a non-rider to try the service.

Does our service meet peoples' needs?

Your purpose is to transport people. If the routing or scheduling does not meet the needs of potential customers, then no amount of advertising or promotional programs designed to generate new riders will be successful.

Community Relations

Some transit agencies' demand for services exceeds its resources to meet the demand. For those agencies, marketing activities to increase ridership or awareness of services would only create dissatisfied customers and poor public relations.

In these situations, marketing programs should be focused on community relations activities, including increasing local revenues.

Activities that improve the relationship between the transit agency, the business community, local political leadership and the surrounding community are becoming increasingly

more important as demand for services grows and competition for local funds intensifies. Decisions on local funds are based on perceptions of need and value, and, often, personal relationships.

The keys to improving community relations are participation and communication.

Participation concerns the agency, its management and employees becoming involved in the efforts to improve the community, both economically and socially. By participating in community events, serving on committees, and generally being involved, the agency can position itself as vital to the well-being of a community and deserving of increased support.

Communication is "telling the agency story," increasing the awareness and knowledge of the importance of the system's services, the economic value of the agency to the community and the provider's plans and needs. Communication is a two-way process. Forums for business leaders and citizens to ask questions and offer suggestions illustrate effective communications efforts.

Media Relations

Good press does not simply happen. A positive article or front-page picture is often the result of coordinated media relations activities. A few tips can help you receive more press attention or positive press.

Newspaper, radio and television professionals rely heavily on press releases and phone calls for their information. When writing a press release, remember to be accurate and concise. Just include the facts and explain why they are significant. Phone calls to talk about article ideas are acceptable but better if they follow a press release.

The press is looking for news of interest and value to their readers, listeners and watchers. They are not in business to promote your agency or service, and they owe you nothing. The information you provide is in competition with plenty of other news. The editor makes the final decision on whether or not to run an article, based on the importance of the information to the community.

The needs of electronic media, obviously, are different than print. The "story" for radio or television must be told in approximately 30 seconds while newspapers allow for more detail and stories that would not be important to the other media.

The media have power and influence. They can shape public opinion and, therefore, they are crucial to any agency's development plans and marketing programs.

Increasing Local Revenues

A number of transit agencies have successfully increased local revenues by means other than fare increases or local tax support. These agencies have devised business ventures to generate funds used to expand or improve routes/services or make up for losses in federal funding.

In a recent survey of community transit agencies, managers volunteered a variety of methods that they are using to increase revenue. Here are several brief examples:

- Auto/Truck Repair

The maintenance facility for the agency was reorganized to service and repair auto and truck fleets. Work schedules are developed so the transit agency's needs continue to be met.

- Training Services

Members of the transit agency that have completed certified courses in defensive driving, passenger assistance or maintenance are made available for a fee, to other agencies or businesses.

- Coupon Distribution

A local business pays a fee to distribute coupons on board the bus.

- Partnerships

Two or more agencies pool resources to operate or expand a service. Only by merging are there enough resources available to implement the service.

- Adopt-A-Bus

A local business sponsors a bus or van. The business provides money, or in-kind services, in return for community recognition.

- Vehicle Advertising

Both exterior and interior advertising can increase local revenue.

Those programs were developed because the transit managers successfully examined their operations to discover a wealth of expertise. By talking with local business leaders, the transit managers found ways to meet local businesses' needs, and charge a fee for it.

Going T
The Do

Conclusion

An effective marketing program will include a number of coordinated activities which may involve advertising, but just as likely will include communicating with businesses and community leaders, utilizing good graphics, and paying special attention to riders' current and future needs.

Depending on your goals, a well-planned marketing program can be used to maintain or increase ridership, revenue, community support or media relations.

Bob Prowda has been involved in consumer and transportation marketing since 1972. He is presently director of marketing services with Ilium Associates in Bellevue, Wash.

West Virginia Pools Resources to Develop Statewide Marketing Program

by Cindy Fish and Susan O'Connell

As a manager of a community transportation agency, you may think that you have neither the time nor the resources to market your agency's services. The West Virginia Public Transportation Division has shown, however, that marketing can be economical and easy. Thanks to the planning of that division, a self-help, multi-media marketing program is available for use by the state's community transit agencies.

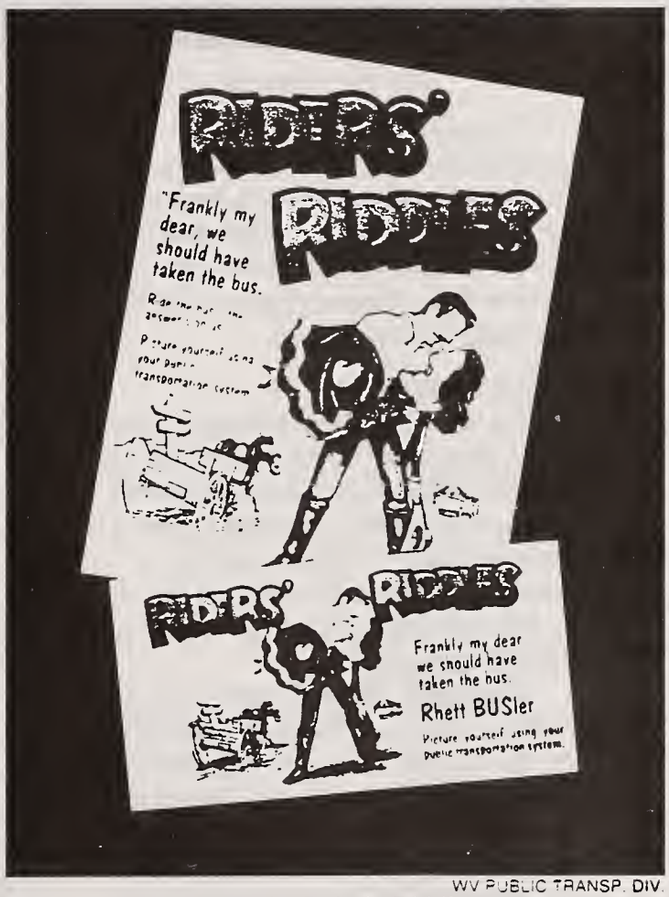
By developing materials which are generic in nature, purchasing items in bulk and pooling resources, the West Virginia Public Transit Division has found that marketing funds can go further and be more effective.

Help from Experts

With the division's small staff and limited knowledge of marketing required, it was necessary to contract with local marketing firms to develop the marketing program.

You don't have to stay with the same firm in order to ensure continuity in a marketing program. In fact, three different agencies have contributed to the state's marketing program.

By developing detailed specifications and by carefully evaluating marketing proposals, you should have no trouble finding ad agencies that will meet your marketing goals.



WV PUBLIC TRANSP. DIV.

Materials from the Rider's Riddles campaign

The *Get on the Bus and Ride Handbook*

The *Get on the Bus and Ride Handbook*, an aid in planning various advertising and promotional activities, was the division's initial marketing project. The handbook explains all the elements necessary to produce attention-getting advertising.

Specifically, the handbook includes black and white newspaper ad layouts, known as "ad slicks." With the addition of the agency's name, logo and phone number, these slicks are ready-to-use.

Artwork and copy elements were also prepared for hand schedules and rider's guides. Various layout designs and graphic illustrations are provided to help the agency produce professional-level materials with both time and cost savings. All these materials are interrelated and can be used in many combinations.

Three radio and two television commercials were provided with the handbook. Transit agencies have run the television commercials as Public Service Announcements, and they can recycle them every two to three years. As with the print advertisements, the commercials can be personalized.

Rider's Riddles

A recent addition to the state's marketing program is a 12-month campaign known as Rider's Riddles.

The campaign is broken into quarters and is built around a series of four posters. Each poster includes a riddle about an unidentified historical or fictional character and invites you to "Ride the Bus — The Answer's on Us." The posters, which are displayed in several locations, such as libraries, public offices and local businesses, feature cartoon drawings of the famous characters.

The same drawings are located in the horizontal poster frames inside the buses — except these smaller posters also include the identities of the characters.

The names of the characters and their themes are:

Three BUSketeers
If this adventurous trio had traveled by

bus, they wouldn't have had to duel with traffic. It's the one for all...your public transportation system.

ThomBUS Edison
Watt a bright idea! Ride the bus. A most practical invention...your public transportation system.

Rhett BUSler
Frankly my dear, we should have taken the bus. Picture yourself using your public transportation system.

Christopher ColumBUS
If the queen had sent this sailor by bus, his route would have been mapped out. Explore the area by using your public transportation system.

Before the campaign began, the ad agency held a seminar for the eight participating transit agencies, outlining the use of the campaign and the necessity of each agency's participation.

Many of the transit agencies have neither the budget nor the personnel to coordinate marketing and advertising on a full-time basis. In order to ensure the success of the Riders' Riddles program, the division also contracted with the ad agency to assist in supervising the media placement.

By developing generic materials, purchasing items in bulk and pooling resources, marketing funds can go further.

To stimulate interest among riders, premium items were developed. Each month a promotional item is given away or a contest/celebration is held. For instance, during the Three BUSketeers promotion, 3 Musketeer candy bars and ice scrapers were given to the public.

When the Christopher ColumBUS campaign starts, chocolate coins, pizza coupons and West Virginia travel information will be passed out.
Four 30-second radio spots featuring the Riders' Riddles were also produced. The transit agencies were responsible for securing air-time.

WV PUBLIC TRANSP. DIV.

Materials from the "Go Busin' What a Trip" marketing campaign

To ensure that the agencies were getting the most for their money, the ad agency assisted in the selection of radio stations and the times the spots would be aired. With the exception of the air-time, the campaign was entirely financed by the division.

Transit Education

The division believes teaching children school bus safety and respect for bus transportation today will benefit public transportation in the future. The state's program uses an array of teaching aids to communicate the transit message in an informative and entertaining manner.

The transit education program was initiated with a coloring book entitled *It's Fun to Ride the Bus.* It tells the story of Billy's first bus ride with his grandmother and was developed for use in grades kindergarten through three.

The *Ride the Bus* activity book contains various puzzles and games and was designed for children in grades four through six.

Both books contain an inside flap in which specially designed bus stickers and other materials can be inserted.

Approximately three years ago, the Bus Safety Kids and Buster Bear were created and have been regularly used to promote bus safety and public transportation.

The Bus Safety Kids teach each other about the various safety rules. Because peer consent is important to the upper primary age group, it is imperative to show children teaching each other about bus safety, rather than having an adult telling children about the rules.

Buster Bear was developed as a mild-mannered parental figure to guide younger children in making the right bus safety decisions. Developed for grades kindergarten through two, this program emphasizes the differences between a school bus and a public bus, including the fact that traffic does not stop for a public bus as it does for a school bus.

The ad agency interviewed teachers, board of education transportation representatives and child development experts. The interviews helped in establishing the teaching methods needed to develop materials children could understand.

The concepts created include:

- A coloring sheet that children color, cut, paste and stand on their desks as tents. The sheet has a public bus, Buster Bear and a bus stop.
- Two bottomless boxes — one designed as a car and one as a public bus. The children can role play by stepping into the boxes and picking them up by the handles.

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- A perforated sheet with the Bus Safety Kids and a sheet displaying the inside of a bus. Children have to select the Bus Safety Kids who are riding the bus properly and paste them to the inside of the vehicle. If they complete it correctly, they receive a special Buster Bear membership.
- As an added bonus, all children receive Buster Bear hats.

All materials were presented by school teachers to approximately 65,000 children in West Virginia.

"Go Busin' What a Trip" brochures were distributed in grades 6 through 9 to promote the idea that bus transportation was a viable alternative to waiting around for parents, relatives or friends to take you where you wanted to go. The brochure points out the ease of riding the bus and all of the different places it goes.

To encourage bus use, a coupon was included in the brochure. After the student rode the bus and had the card punched four times, he/she could redeem the coupon for a free "Go Busin' What a Trip" painter's cap.

Pooling Resources

Pooling resources is an excellent way of achieving first-class marketing campaigns. For example, it would cost a single transit agency approximately $56,000 to develop a program similar to the Riders' Riddles campaign provided by the division. If each agency in the state developed a separate marketing program, the total cost would be $672,000.

With federal cutbacks, marketing becomes increasingly important in order to maintain or increase ridership and community support.

Marketing can be fun not only for your passengers but also for your employees. It allows everyone to contribute to the program and instills pride in your organization.

Cindy Fish has been a grant coordinator for the West Virginia Public Transit Division since 1983. Susan O'Connell has been the director of the Public Transit Division since 1972.

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* U.S. G.P.O.:1991-523-690:40360

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DOT-T-91-07

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