

Transit Development Plan 1998-2002

RESOLUTION NO. 59-97

**CITY COUNCIL'S ADOPTION OF THE
GRAND JUNCTION/MESA COUNTY METROPOLITAN PLANNING
ORGANIZATION'S TRANSIT DEVELOPMENT PLAN FOR 1998-2002**

WHEREAS, a Five-Year Transit Development Plan is required to be developed and approved by local governments in Mesa County in order for Mesa County to continue receiving Federal Transit Administration funding for transit services; and

WHEREAS, the Federal Transit Administration awarded planning assistance to Mesa County to assist in the funding for the preparation of the Transit Development Plan; and

WHEREAS, a Transit Development Plan Committee was appointed to develop a recommendation for transit services in the area, including representatives from the City of Grand Junction, City of Fruita, Mesa County and the Mesa County Civic Forum under the guidance of the Grand Junction/Mesa County Metropolitan Planning Organization; and

WHEREAS, the preferred alternative as recommended by the Transit Development Plan Committee has been adopted by the City of Fruita, Mesa County, and, as amended, by the City of Grand Junction; and

WHEREAS, several public hearings have been held to receive input regarding the Transit Development Plan; and

WHEREAS, Grand Junction agrees to the levels of local government and federal funding as set forth in the Transit Development Plan as approved, to wit: the City of Grand Junction's share which shall not exceed \$50,000 per year, subject to annual appropriation.

NOW, THEREFORE, BE IT RESOLVED BY THE GRAND JUNCTION CITY COUNCIL:

The 1998-2002 Transit Development Plan is hereby approved, as amended as set forth on the attached exhibit. Staff is directed to submit the Plan as approved to the Federal Transit Administration.

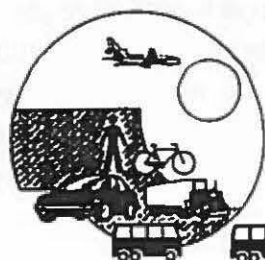
Adopted this 17th day of September, 1997.

GRAND JUNCTION CITY COUNCIL

By: Janet L. Terry
Mayor Janet Terry

ATTEST:

Stephanie Nye
Stephanie Nye, Clerk



Transit Development Plan 1998-2002

Submitted to the

Grand Junction / Mesa County
Metropolitan Planning Organization

McDonald Transit Associates, Inc.
4040 Fossil Creek Blvd., Suite 200
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September 2, 1997

Acknowledgments

The McDonald Transit Associates, Inc. team would like to acknowledge the members of the community and the Transportation Development Plan Committee for their assistance in developing this plan. In addition to the members of the committee, we thank the following for their interest in public transportation and their contributions towards making this plan a workable framework for future progress.

Linda Marsh, MesAbility
Edward Estes, MesAbility
Betty Taylor, Mesa Developmental Services
Elizabeth Rowan, Mesa County
Robert Jasper, Mesa County
Cliff Davidson, Grand Junction/Mesa County MPO
Tambra Dabbs, Grand Junction/Mesa County MPO

TDP Committee

Gordon Vetter, Fruita City Councilmember
Janet Terry, Mayor, City of Grand Junction
Kathryn H. Hall, Mesa County Commissioner
Maty Locke, Mesa County Civic Forum
Pat Gattis, Mesa County Civic Forum
Bennett Boeschenstein, Fruita City Planner
Hal Mason, Mesa County Budget Officer
Jim Shanks, Grand Junction Public Works Director

All the Members of the Transit Action Coalition



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I Introduction

The Grand Junction / Mesa County Metropolitan Planning Organization's original "Request for Proposals" outlined five primary tasks to be accomplished by the Transit Development Program (TDP). We have completed these tasks, and the results are provided in the following chapters. In this Introduction, we review those tasks and describe where the results are to be found.

Task 1. Data Compilation

The information compiled provides a comprehensive overview of Mesa County and appears in Chapter II, "Demographics," and Chapter III, "Existing Transportation Providers" of this report. The information compiled within this section was utilized to determine the transit needs of the county in Chapter IV "Transit Needs Analysis." Specific transit trip generators were inventoried as to location, type and size and are listed in Appendix C: "Mesa County Potential Transit Generators."

Task 2. Transit Demand Estimation

In Chapter IV we utilize a variety of different methods to estimate transit needs and then to project transit demand. The methods included:

- A random household telephone survey. (Appendix A provides a summary of the random household telephone survey.)
- Reports from current service providers on unmet needs.
- Demographic data on transit dependent populations, including:
 - households without automobiles
 - persons who are 65 years of age or older
 - members of minority populations
 - persons with disabilities



- A peer city analysis.
- The use of standard need estimation techniques, including:
 - Observed national employee transit use percentages
 - Observed national transit modal splits, and
 - A regression model using socioeconomic data to calculate need

All of the information gathered pointed to the fact that there exists a significant unmet need for transportation in the Grand Valley. There also exists a strong demand for general public transportation services.

Task 3. Exploration of Alternatives for Provision of Public Transportation

The purpose of this activity was to determine the appropriate level of transit service for Mesa County, the most appropriate organizational and operational format for providing transportation, and the most appropriate method of funding this transportation service.

In Chapter V we outline a broad range of transit service options that would be appropriate for Mesa County. We provided the TDP Committee with a decision-making process that resulted in the choice of a preferred transit service option. The decision-making process is detailed below.

Transit Development Program Committee Preferred Transit Option

The Transit Development Program Committee reached a unanimous decision on the preferred transit service options. They decided on an incremental increase in public transit services, that starts with a return to 1996 service levels and then adds in an increase in the user-side-subsidy taxi cab program with the 1998 budget. In 1999 the capital equipment budget would be used to purchase five 22 passenger vehicles, suitable for implementing a limited fixed route service in the year 2000. The four vehicle fixed route service would be designed to connect low income areas of Clifton with Mesa Mall, along an East-West corridor, and low income



areas of Orchard Mesa with the Hospital District, on a North-South corridor.

The first question that needed to be answered was: Who does the community want to serve? As noted in the "Transit Need Analysis," among the transit dependent are:

- Persons with mobility impairments or disabilities that keep them from being able to drive an automobile;
- Elderly persons who can no longer drive, or no longer wish to drive;
- Low income people who cannot afford an automobile (including both unemployed and the working poor);

The TDP Committee decided that these were the persons that a transit system should serve. Once this decision was made, the next step was to decide the best service options for serving these persons.

- **Maintain Current Service**

The elderly and persons with disabilities are the primary population segments served by the current system. The decision was made to return the current paratransit service for elderly and persons with disabilities to 1996 levels.

Maintaining the current system means serving the elderly and persons with disabilities only. The current system, however, does not fully meet their needs. A recommendation was made to expand the current services in an attempt to fill this unmet need, and also to expand services to meet the needs of the working poor and persons currently on welfare who needed to go to work or into job training.

- **Expand Current Services**

With the decision is to try to expand the Current Service in order to fill the unmet needs of the elderly and persons with disabilities, and low income persons, there were two options. The first was to expand the directly provided service currently provided by MesAbility, and the second was to expand the user-side-subsidy Taxi program. The least expensive of these options was to increase the user-side-



subsidy program. The decision was made to attempt to increase the current program by 25 percent through the user-side-subsidy program..

- **An Incremental Approach to General Public Transit**

With the decision to extend transit services to the working poor and other low income residents of the urbanized area, an incremental approach was recommended. A number of incremental steps could have been attempted, as detailed in Chapter V "Service Options." Given the kinds of services currently being provided, and a commitment to meeting the needs of the elderly and persons with disabilities, the decision was made to implement a limited fixed route service.

Possible improvements in coordination among the current transportation providers was outlined in Chapter VI "Transit Coordination Planning."

As an extra service for the people of Mesa County, we also applied a methodology¹ to estimate the economic benefits of transit for Mesa County. This appears as Appendix B "The Economic Benefits of Transit in Mesa County."

Task 4. Services

The purpose of this activity was to analyze more closely the preferred transit alternative selected by the TDP Committee. The preferred option of the TDP Committee was presented to the public at a public meeting, and to the elected officials from Mesa County, Fruita, and Grand Junction.

Chapter VIII presents a detailed, five year "Transit Development Plan." This plan includes returning to 1996 levels of service with the already existing paratransit system, the expansion of the user-side-subsidy taxi cab program, and the planned implementation of a limited fixed route service by the year 2000. An annual capital and operating budget for each year of the five-year program was prepared.

¹ McDonald Transit Associates, Inc. *Economic Benefits of Transit Service*, prepared for the Indiana Transportation Association, 1994.

A detailed plan of operation was produced. The following elements were incorporated into the final TDP operations plan.

a. Capital and Support Facilities Needs. This activity determined the number and types of transit vehicles that will be needed to provide the service. In addition to the selection of appropriate vehicles, an analysis of the entire capital plan needed to operate the system will be completed to identify appropriate support equipment including, maintenance equipment, route signs, bus shelters, administrative office equipment, and the like. Appropriate cost estimates for these capital items was prepared.

b. Operations Scheme. This activity involved the developing of a two year planning process for the creation of routes, schedules, and headways for the limited fixed route service. The plan results in a limited fixed route service going into operation in the year 2000.

c. Financial Analysis. A comprehensive analysis of the financial aspects of the transit service was completed in this activity. Fare structure and operating revenues were established. Detailed operation cost projections for each operational year were developed to augment capital equipment costs. A financial support program for each year was also developed that detailed sources of income for annual operating revenues, and capital expenses. Private, local, and federal sources of revenue were identified.

d. Management. This activity involved an analysis of the institutional arrangement for provision of transportation services. Roles, responsibilities, and relationships between the various parties are defined. This activity includes a management plan.

e. Marketing Program. This section provides a marketing strategy for the proposed service.

f. Maintenance Program. This element outlines a vehicle maintenance program. It includes elements on preventive maintenance/ inspection activities, parts inventory, purchasing, and vehicle storage. In addition, Appendix D provides a model maintenance plan from Springs Transit in Colorado Springs..



Task 5. Completion and Distribution of the TDP

Our public participation approach included:

- three public meetings at key points in the project to solicit citizen input on the process, plus a final presentation of the preferred TDP in a public hearing attended by most of the elected officials from Mesa County, Fruita, and Grand Junction;
- the use of a random household telephone survey in order to solicit unbiased views from the public;
- a total of five meetings with the TDP Committee;
- the availability of a toll-free "800" telephone number which citizens used to call our Project Manager regarding the study; and
- meetings with key individuals in Mesa County who were familiar with the transportation needs of the community.



II Demographics

Introduction

Mesa County, on the western border of Colorado with Utah, has the tenth largest population in the State. The Grand Junction urbanized area is the sixth largest urbanized area in Colorado. Grand Junction is the largest city between Salt Lake City and Denver.

Mesa County had a 1990 population of 93,145, with 76,011 within the urbanized area. By 1995 the population had increased to 105,365. A census tract map of the County is included as Exhibit II-1. Exhibit II-2 shows selected demographics for Mesa County from the 1990 Census. We note from this information that:

- In 1990, 1.8% of the population age 16 to 64 in Mesa County had a disability which prohibited them from traveling independently, i.e., a mobility limitation. While this is a small percentage, it is higher than the State average. In fact, in Fruita, the proportion of the population age 16 to 64 with a mobility limitation (2.2%) is 38% higher than the State average. Nearly one in five (19%) of the elderly in Fruita has a mobility limitation.
- There is considerable variation among Mesa County communities with respect to the number of **households without automobiles** or other vehicles. According to the 1990 U.S. Census, the City of Grand Junction has a surprisingly high percentage of households without vehicles (9.5%) which is 37% higher than the average for the State.
- A significant portion (13.6%) of the County's population was **65 years of age or older** in 1990, and this percentage has increased rapidly. Grand Junction's proportion of elderly (17.7%) was 86% higher than the State average. The area is becoming a retirement center. Transfer payments, which include such income as Social Security, S.S.D.I., veteran benefits, and other similar income for the region, grew as a percentage of total personal income in the County from 14.8% in 1984 to 19.2% in 1994. .



Exhibit II-2
1990 Age and Mobility Demographics by Census Tract

Census Tract	Population	16 to 64	65+	Percent 65+	Under 16	Percent <16	Mobility Impaired	% Mob
1	377	119	51	13.5%	207	54.9%	11	2.9%
2	2,144	1,442	385	18.0%	317	14.8%	100	4.7%
3	1,274	770	162	12.7%	342	26.8%	37	2.9%
4	3,011	1,776	658	21.9%	577	19.2%	119	4.0%
5	2,379	1,527	523	22.0%	329	13.8%	77	3.2%
6	7,549	4,686	1,298	17.2%	1,565	20.7%	269	3.6%
7	3,769	2,125	605	16.1%	1,039	27.6%	164	4.4%
8	4,699	2,931	406	8.6%	1,362	29.0%	154	3.3%
9	1,046	667	101	9.7%	278	26.6%	53	5.1%
10	6,763	3,897	1,381	20.4%	1,485	22.0%	202	3.0%
11	8,580	5,396	1,012	11.8%	2,172	25.3%	258	3.0%
12	1,605	995	310	19.3%	300	18.7%	55	3.4%
13	9,410	5,820	1,007	10.7%	2,583	27.5%	237	2.5%
14.01	5,157	3,260	774	15.0%	1,123	21.8%	90	1.7%
14.02	3,829	2,369	542	14.2%	918	24.0%	61	1.6%
15	8,484	5,028	963	11.4%	2,493	29.4%	231	2.7%
16	2,070	1,457	205	9.9%	408	19.7%	46	2.2%
17.01	12,368	7,587	1,164	9.4%	3,617	29.2%	256	2.1%
17.02	3,608	2,081	529	14.7%	998	27.7%	89	2.5%
18	2,264	1,460	313	13.8%	491	21.7%	68	3.0%
19	2,759	1,738	260	9.4%	761	27.6%	85	3.1%
Total	93,145	57,147	12,714	13.7%	23,381	25.1%	2,662	2.9%

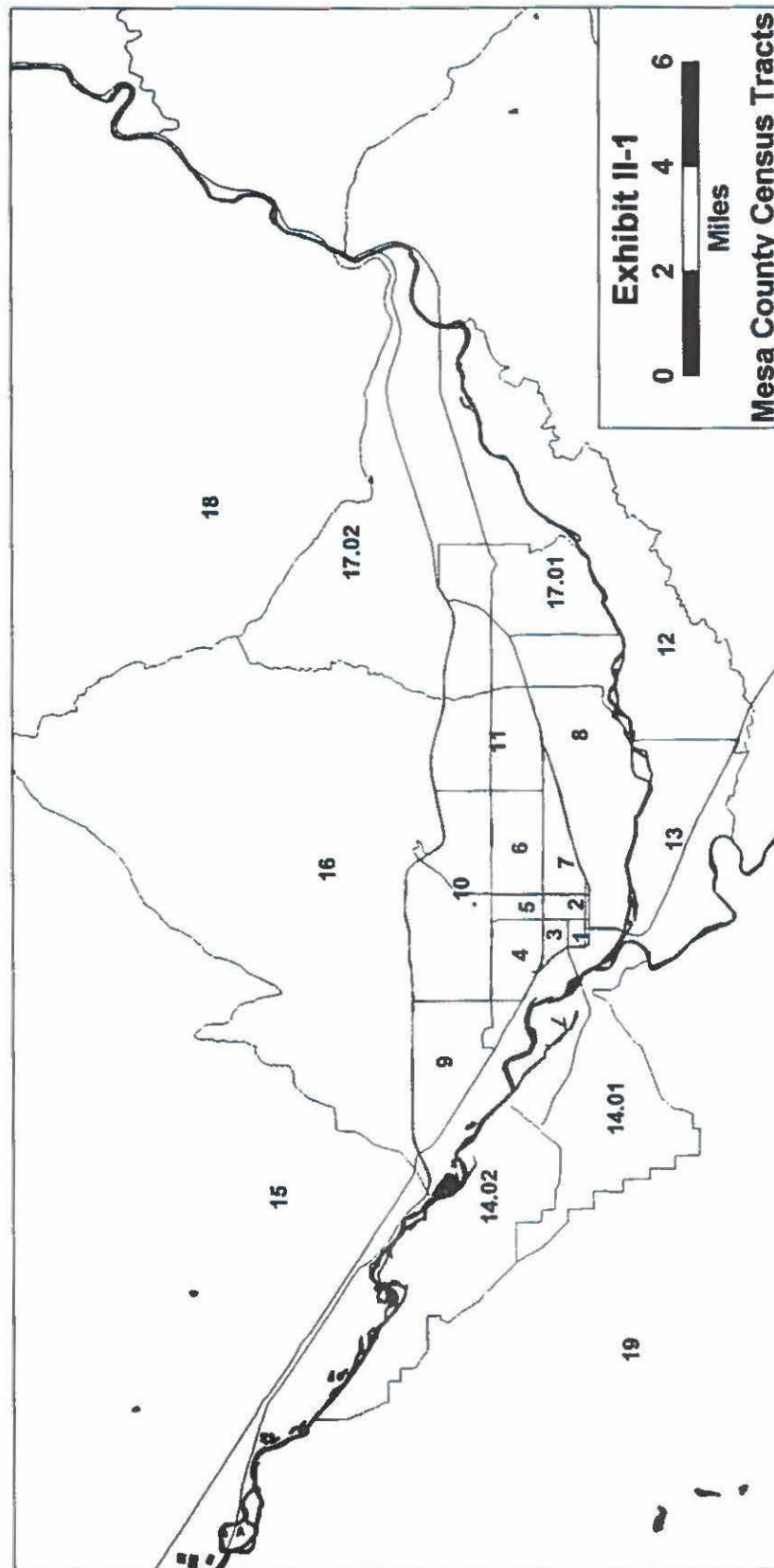


Exhibit II-3
1990 Car Ownership by Census Tract

Census Tract	Population	Households	Persons per HH	No Auto	Percent No Auto	One Auto	Percent One Auto
1	377	93	4.1	11	11.8%	43	46.2%
2	2,144	1,139	1.9	297	26.1%	511	44.9%
3	1,274	656	1.9	118	18.0%	262	39.9%
4	3,011	1,363	2.2	106	7.8%	599	43.9%
5	2,379	906	2.6	135	14.9%	454	50.1%
6	7,549	3,491	2.2	246	7.0%	1,546	44.3%
7	3,769	1,623	2.3	113	7.0%	831	51.2%
8	4,699	1,553	3.0	36	2.3%	354	22.8%
9	1,046	379	2.8	17	4.5%	91	24.0%
10	6,763	2,754	2.5	75	2.7%	939	34.1%
11	8,580	3,303	2.6	122	3.7%	980	29.7%
12	1,605	613	2.6	4	0.7%	63	10.3%
13	9,410	3,511	2.7	101	2.9%	909	25.9%
14.01	5,157	2,043	2.5	5	0.2%	491	24.0%
14.02	3,829	1,362	2.8	4	0.3%	208	15.3%
15	8,484	2,933	2.9	112	3.8%	751	25.6%
16	2,070	802	2.6	14	1.7%	134	16.7%
17.01	12,368	4,524	2.7	115	2.5%	1,491	33.0%
17.02	3,608	1,392	2.6	47	3.4%	470	33.8%
18	2,264	802	2.8	27	3.4%	174	21.7%
19	2,759	1,008	2.7	0	0.0%	139	13.8%
Total	93,145	36,250	2.6	1,705	4.7%	11,440	31.6%

Exhibit II-4 charts the population growth projections of Mesa County. Since 1994, Mesa County's population has been growing at a faster rate than Colorado as a whole - approaching 3% annually. By the end of 1997 the population of the County will exceed 108,000. With a steadily growing population, the need for transit can be expected to grow also.

Exhibit II-4 Mesa County Population Projections

Year	Population	Annual % Change
1960	51,700	
1970	55,287	0.67%
1980	82,644	4.10%
1990	93,773	1.27%
1995	105,408	2.37%
2000	116,427	2.01%
2005	126,982	1.75%
2010	137,186	1.56%
2015	147,427	1.45%
2020	157,994	1.39%

Data Source: Census Bureau, Colorado Department of Local Government, Oct 1996

Minority population growth has been more rapid than that of the population as a whole. From 1990 through 1994 Mesa County's Hispanic population has grown at a rate of 4.04 percent, the Black population has grown at an average rate of 4.00 percent, and the Asian population has grown at a rate of 5.45 percent. This is compared to a White, non-Hispanic growth rate of just 2.37 percent. From these figures, we project that the total minority population in 1995 hit 11,169 out of 105,408 total population, or 10.6 percent of the total population.



The elderly, the poor, and persons with mobility impairments are major users of public transportation. Exhibit II-5 maps residents of the Grand Valley as a percentage of the total adult population. Note the heavy concentrations of elderly persons in the downtown area, where 45 to 63 percent of the adult population are elderly in some census block groups. Fruita also has a significant concentration of elderly.

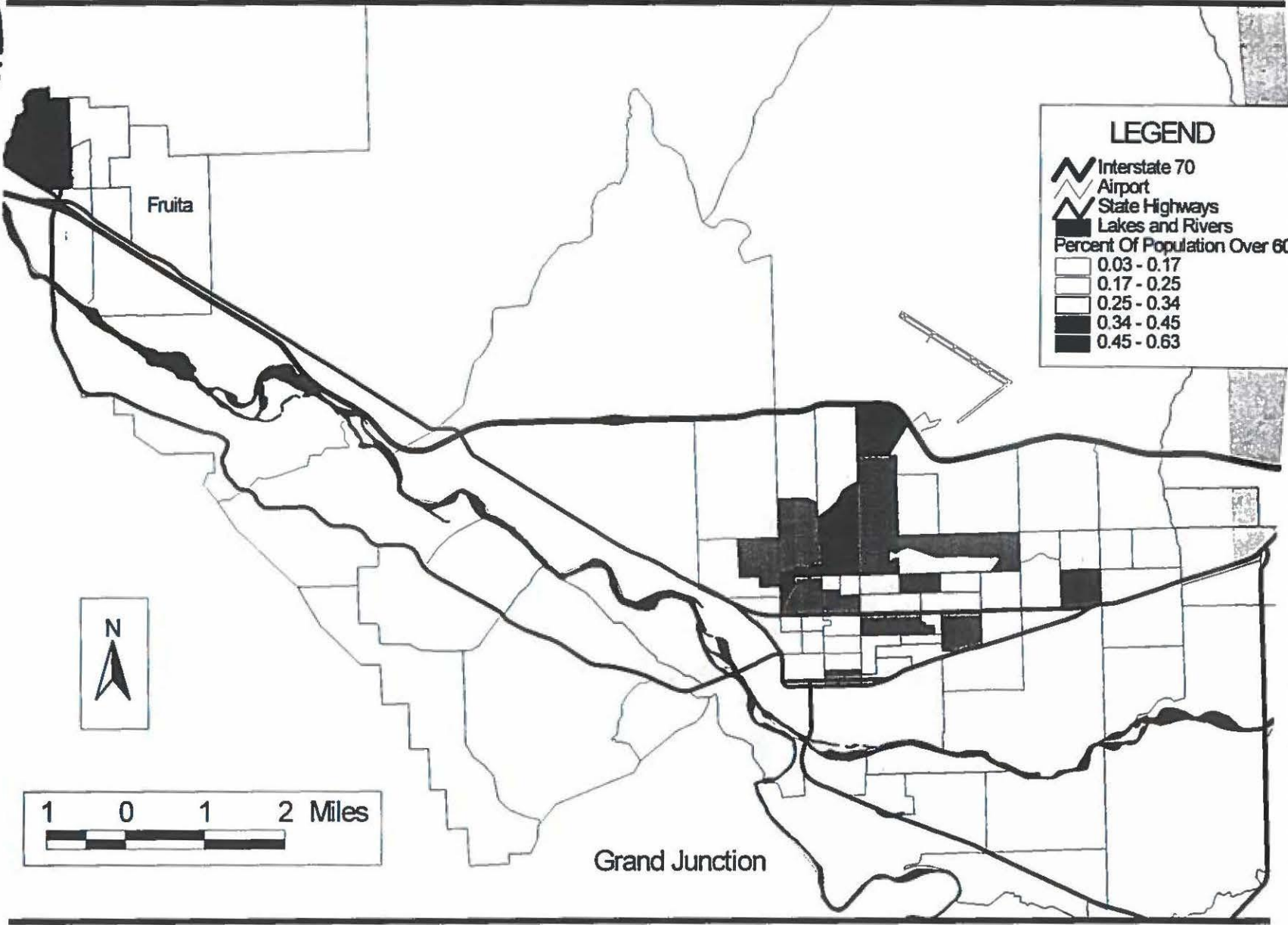
Many of the poor live within a cycle of poverty. They are unemployed, or working at a low wage job, and cannot afford an automobile. Without an automobile they cannot look for a job, or a better job, and are restricted to job opportunities close by where they live. Exhibit II-6 provides a map of median family incomes in the Grand Valley.

The MesAbility transit system provides transportation for elderly and persons with disabilities. Using the Grand Junction / Mesa County Metropolitan Planning Organization's GIS mapping capabilities, Exhibit II-7 shows the residential locations for all MesAbility clients. Mesa County Department of Social Services clients are pictured in Exhibit II-8. Both of these groups hold a high potential for transit ridership. The shaded area on each map represents the highest concentration of these persons.

The area now has about 5,000 college students, and Mesa State College is the fastest growing four-year college in Colorado. Our experience in estimating transit ridership suggests that college students can be a significant source of riders. Exhibit II-9 shows the residences of Mesa State College students during the 1996-1997 school year.

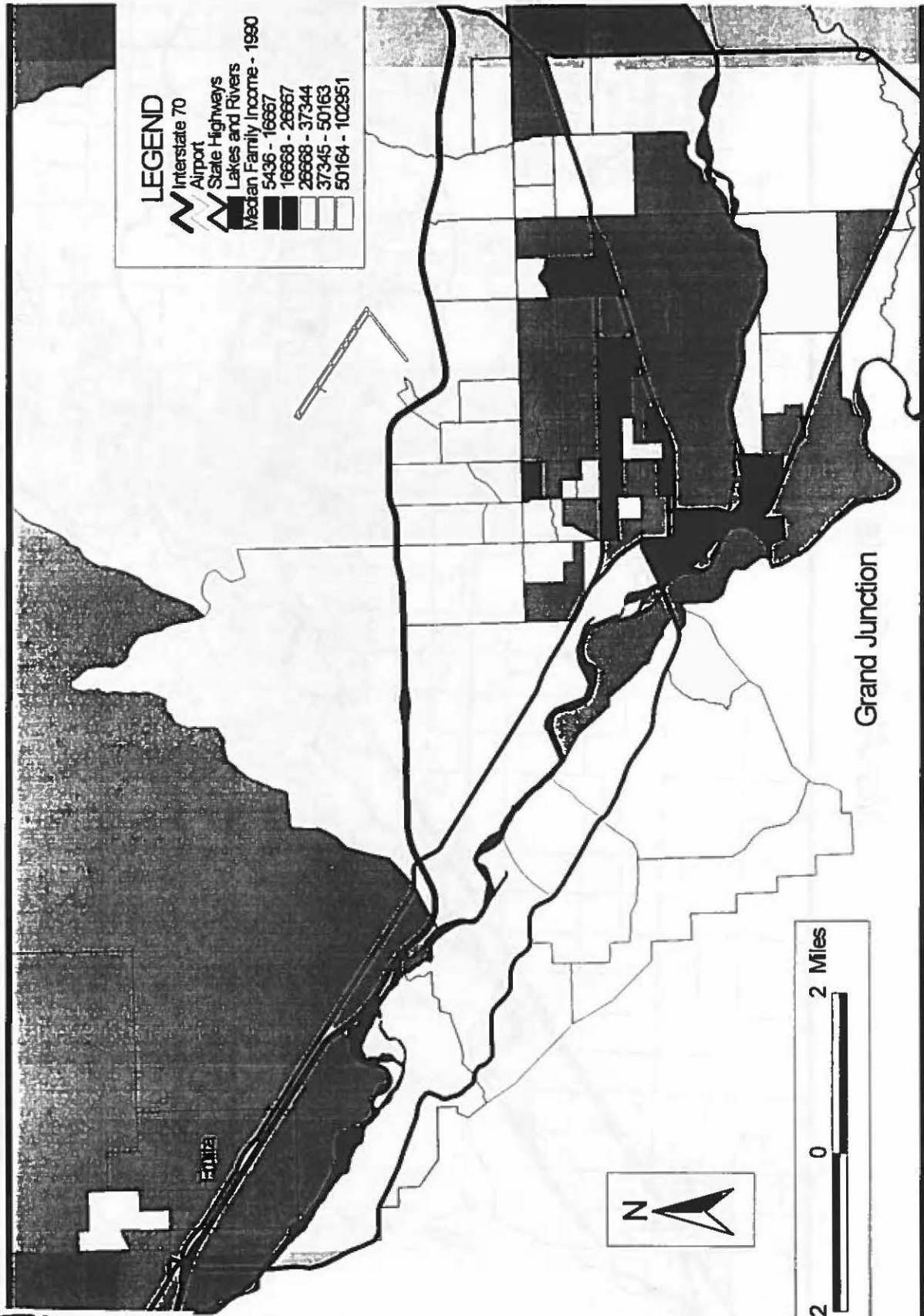
We will return to some of these figures when we do our Transit Needs Analysis in Chapter IV.

Residents Aged 60 And Over As A Percent Of Total Adult Population

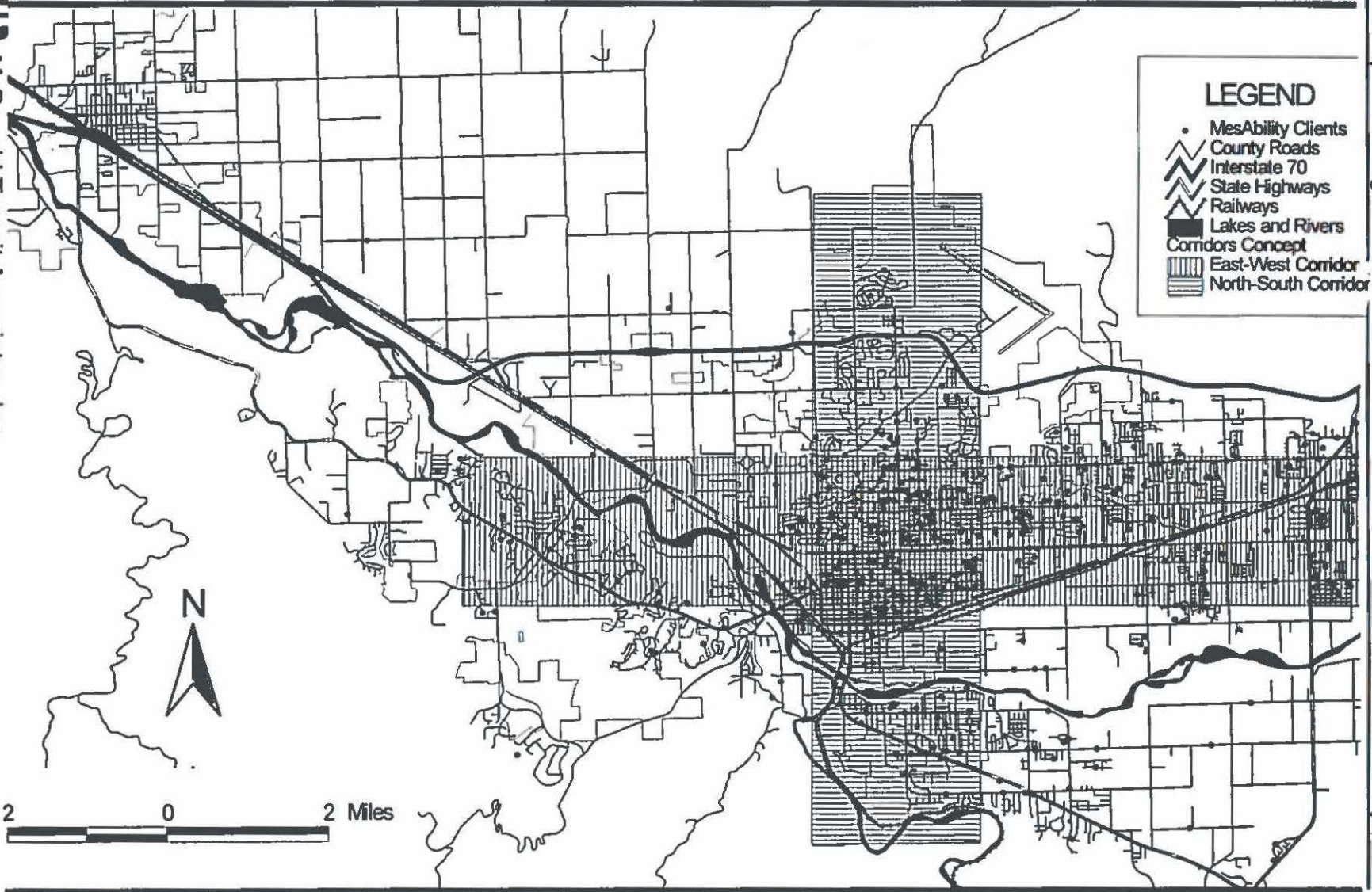


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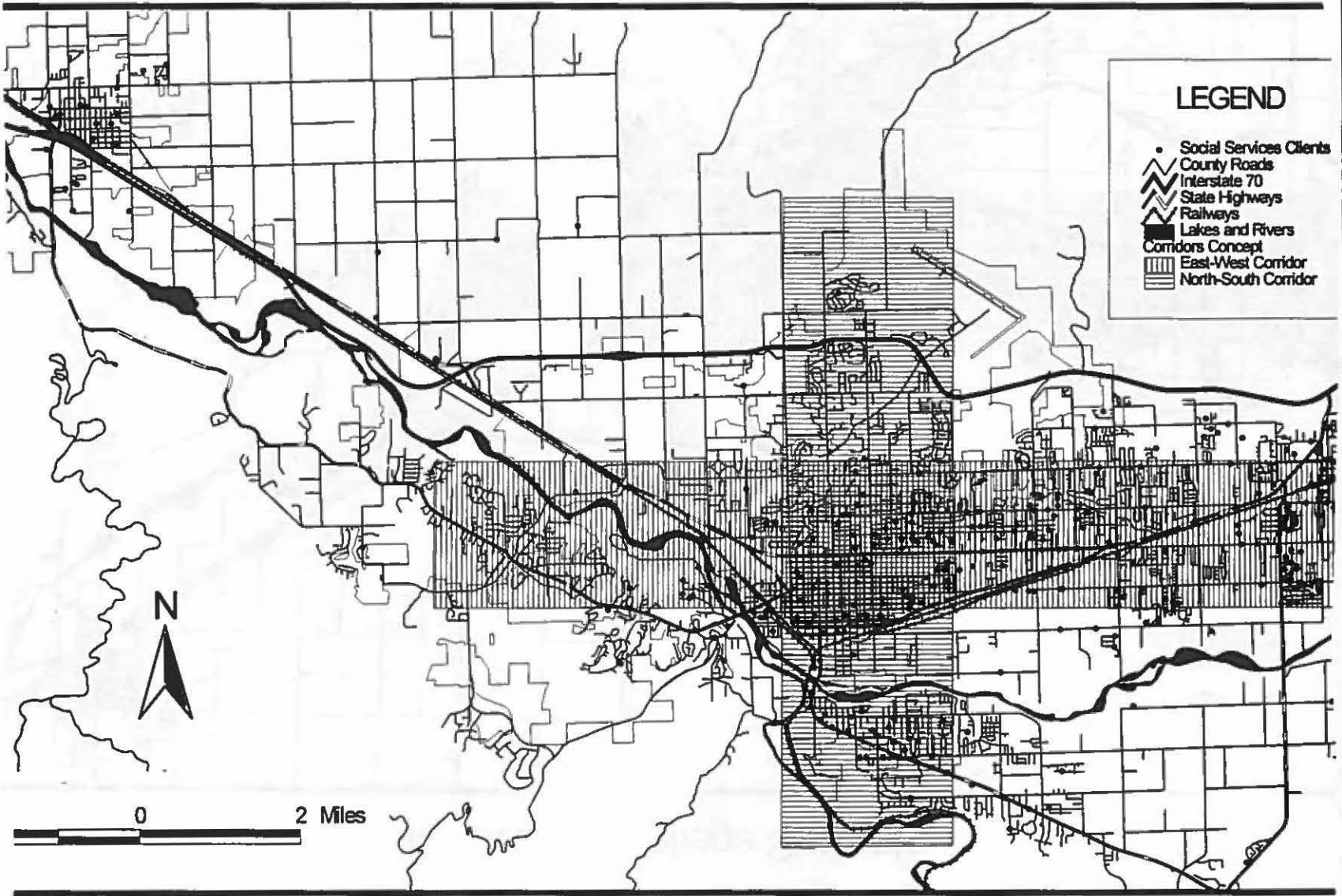
Median Family Income



MesAbility Clients

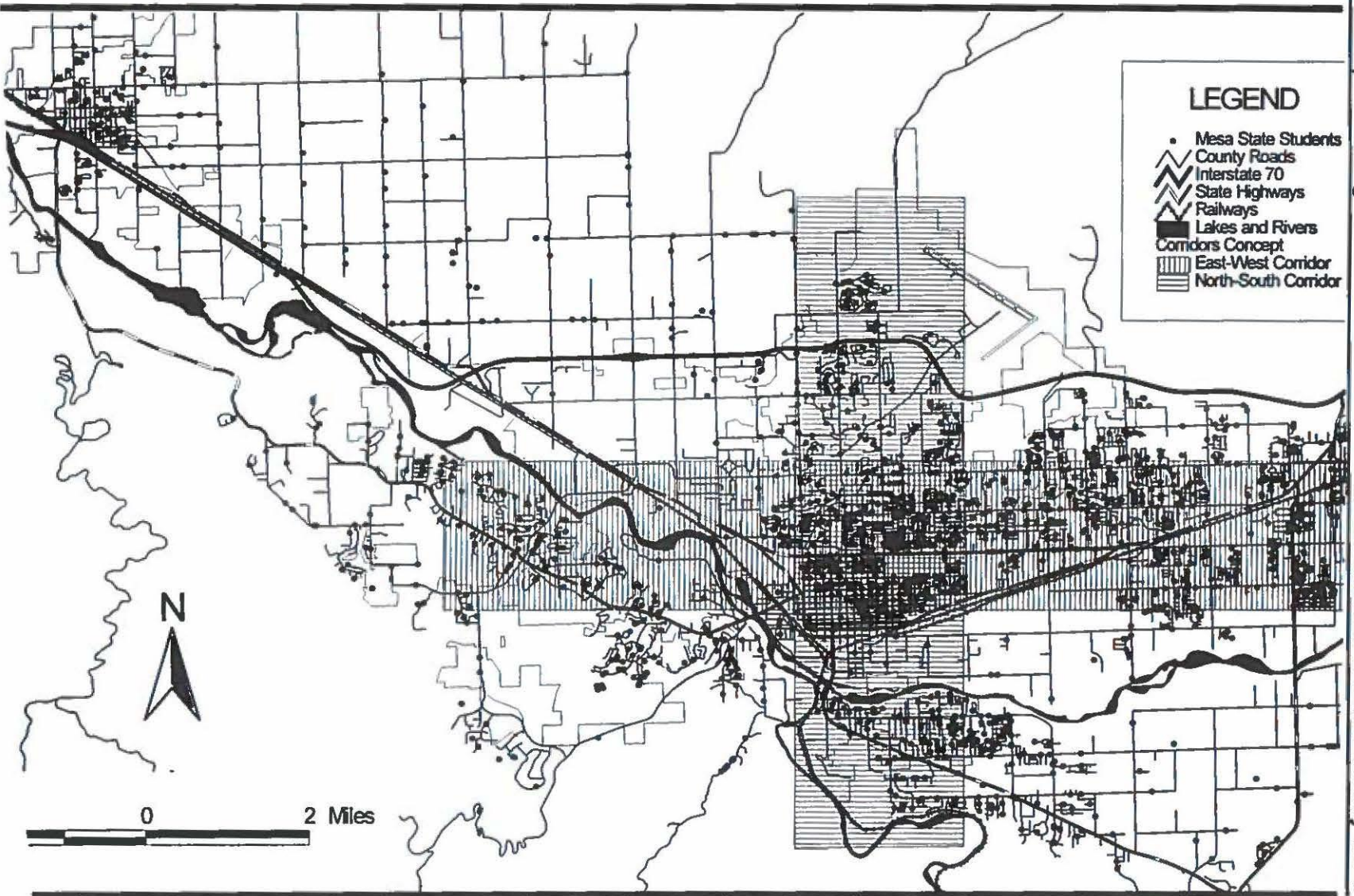


Social Services Clients



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Mesa State College Students



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III Existing Transportation Services

Transportation Providers Inventory

This is a summary of fifteen existing public transportation services currently operating in the Grand Junction/Mesa County urbanized area. Information on these services was obtained through a transportation provider survey which was conducted as one of the first tasks of the Grand Junction/Mesa County MPO Transit Development Program study. This survey was conducted to determine the following:

- * Existing service levels
- * Existing ridership
- * Existing funding sources
- * Gaps in service
- * Potential operators for any expanded or coordinated services

Service Characteristics

The completed inventory reviews the services of fifteen current local transportation providers. An individual summary of each of the transportation providers' services was completed as a part of the inventory. The individual summaries can be found at the end of this review.

A table of the service characteristics for each of the Grand Junction/ Mesa County transportation providers follows as Exhibit III-1. The transportation services provided range from very specific medical transportation programs to demand responsive service for the elderly and disabled. There is no general population public transit system in the Grand Junction area. The only service available to the general population is taxi service provided by Sunshine Taxi.

In addition to Sunshine Taxi, current local transportation providers in Grand Junction/Mesa County include the MesAbility senior and disabled transportation



Exhibit III-1
Grand Junction/Mesa County Local Transportation Providers
Service Characteristics

Transportation Provider	Type of Agency	Eligible Riders	Eligible Trips	Service Type	Service Area	Service Hours	Vehicle Inventory
Care Cars	Private	Medical Clients & Wheelchair Users	Medical,	Prescheduled & Demand	Grand Junction, Fruita, Delta, Montrose	Varies, generally 8:00am-6:00pm Mon.-Sat.	1 minibus w/lift 1 modified van w/lift 1 minivan, 1 sedan
Center for Independence	Private Nonprofit	Program Clients	Programs Activities	Prescheduled & Demand	Grand Junction Fruita	Varies as Needed	1 van w/ lift 1 minivan
Colorado West Mental Health	Private Nonprofit	Program Clients	Programs Activities	Prescheduled & Demand	Mesa County	8:00am-7:30pm	1 modified van w/lift 7 vans, 4 sedans 1 truck
Disabled American Veterans	Private Nonprofit	Veterans	Medical	Prescheduled	Mesa County	8:00am-4:00pm	1 minivan
Family Health West	Private Nonprofit	Residents & General Public	No Restrictions	Prescheduled & Demand	Fruita & Grand Junction	Varies, generally 9:00am-5:00pm	2 minibuses w/lifts 1 van, 1 sedan
Foster Grandparents	Private Nonprofit	Program Volunteers	Volunteer Assignments	Prescheduled	Grand Junction and Clifton	Mon.-Fri. Daytime	1 minivan
Grand Junction Regional Center	Public	Residents	No Restrictions	Demand Response	Grand Junction area	24 hours/day 7 days/week	6 minibuses w/lifts 9 vans w/lifts, 1 minivan 5 vans, 3 jeeps, 2 sedans
Hilltop Health Services	Private Nonprofit	Facility Residents	No Restrictions	Demand Response	Grand Junction area	Varies as needed	3 minibuses w/lifts 3 vans, 3 minivans
Laidlaw/School District	Private	Students Charter Clients	School Charters	Fixed Route Charters	Grand Junction area	School times & as needed	103 medium to large buses most w/lifts
Mesa Developmental Services	Private Nonprofit	Program Clients	No Restrictions	Prescheduled & Demand Response	Grand Junction Clifton	Varies as needed	3 vans w/lifts 12 vans, 5 minivans 6 pick-ups, 1 sedan
Mesability Transit	Private Nonprofit	Elderly & Disabled	No Restrictions	Prescheduled & Demand Response	Urbanized Mesa County	7:30am-4:30pm Mon.-Fri. 8:00-4:30 Sat.	6 minibuses & 4 modified vans w/lift 1 modified van no lift
Rocky Mountain HMO Time Bank	Private Nonprofit	HMO Members	No Restrictions	Prescheduled	Mesa County	Varies as needed	Volunteer's vehicles
Sunshine Taxi	Private	General Public	No Restrictions	Demand Response	Mesa Co. & Colorado	24 hours 7 days a week	8 sedans, 3 minivans 1 van w/lift
Town of Collbran	Public	Seniors, recreation program participants	No Restrictions	Prescheduled & Demand	Grand Junction area	Varies	1 modified van
Town of DeBeque	Public	Seniors	No Restrictions	Prescheduled	DeBeque to Grand Junction	8:00am-5:00pm Fridays	1 van



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Transit Development Program

Grand Junction / Mesa County MPO

program, Mesa Developmental Services, Mesa County Valley School District 51, several agencies providing transportation for their own program clients or residents and various medical transportation services.

Exhibit III-2 summarizes the services provided by population served. These are general numbers as there are many agencies in the Grand Junction area which are providing a number of transportation services. For example, Sunshine Taxi serves the general public, but a large number of their riders are subsidized through medical or social service programs.

Exhibit III-2 Summary of Transportation Providers

Population Served	Number of Agencies	Estimated Annual Ridership	Number of Vehicles
General Public	1	108,000	12
Seniors/Disabled	3	31,000	13
Students	1	3,000,000	103
Social Services/ Medical Clients	8	106,000	74
Facility Residents	2	48,000	13
Totals	15	3,293,000	215

Public Agency Providers

Four public agencies which provide transportation services were surveyed as a part of the inventory. None of these public providers serve the general public. The Town of Collbran serves senior and summer recreation trips and the Town of DeBeque serves seniors. The Grand Junction Regional Center is a public agency which provides transportation to its facility residents only. This is a specialized



service and a very small percentage of the Regional Center riders would be capable of using public transit.

This group of providers also includes one education agency, Mesa County Valley School District 51. This agency provides service through a contract with Laidlaw, a private company. The school district serves students for school related trips. More than 3,000,000 trips are provided to students annually. Laidlaw does coordinate with some of the other providers, when the trips required are for school age children.

Private Nonprofit Providers

Nine private nonprofit providers were surveyed in the transportation provider inventory which serve the Grand Junction/Mesa County area. The largest private nonprofit provider is MesAbility Transit, serving senior and disabled residents of the Grand Junction urbanized area. MesAbility directly provides approximately 28,000 trips annually, and is responsible for brokering another 50,000 through user side subsidy taxi cab services and other arrangements. The largest funding source for MesAbility Transit service is FTA Section 9. Mesa Developmental Services is also a major service provider. This agency provides more than 70,000 trips annually to persons with developmental disabilities.

Other private nonprofit transportation providers surveyed include the Center for Independence and Colorado West Mental Health which provide transportation to their clients for program activities. Also, the Disabled American Veterans program serves veterans for medical trips, Family Health West serves their facility residents and Hilltop Health Services provides transportation services to their residents and programs. The Foster Grandparents program transports senior volunteers to their assignments and Rocky Mountain HMO serves HMO participants for a variety of trip needs. More detailed information on each of these providers follows at the end of this report.

Private for Profit Providers

Two private for profit providers of local transportation service were surveyed during the inventory. Sunshine Taxi is the local taxi company which serves the



general public. Sunshine Taxi also operates a number of services where client taxi trips are reimbursed or subsidized by other area agencies. Care Cars is another local private operator serving area medical trips and providing lift equipped vehicles to the disabled population.

Laidlaw has been mentioned in the public agency section of this report as the majority of their service is school bus service. Laidlaw also provides charter bus services. There are several other charter/tour bus companies in the area including Eagletree Tours, WW Stage Lines and Western Freedom Tours. Intercity service is also available in Grand Junction through Greyhound and Amtrak services.

Gaps in Service

Suggestions for improving transportation services in the Grand Junction/Mesa County area were made by many of the agencies surveyed for the transportation providers inventory. Service needs mentioned during the inventory included the following:

- * Public transit for the general population
- * Increased capacity on MesAbility to reduce reservation time needed
- * Evening public transportation
- * More transportation options for seniors

Existing transportation providers were asked to reflect upon unmet transportation needs in Mesa County. The comments below summarize the responses received, and reflect the views of the persons listed as responding.

Care Cars - Aggie Wier

Care Cars is not always able to meet service requests. More people need rides from Delta and Montrose to Grand Junction. Most of the need is from people requiring dialysis. There is also a lot of need for general public transportation.

Center for Independence -Mary Lynn McNutt



The Center for Independence has met the needs of their clients for programs they offer. Outside of their programs, however, there are some transportation needs which are not met. For example, transportation for the disabled is not available through MesAbility in the evenings and existing alternatives are expensive.

Colorado West Mental Health -Joe O'Connor

Colorado West Mental Health has been able to meet service requests but they have had to add a lot of vehicles to do this. A large number of their clients require specialized service. There are some unmet transportation needs such as for the vocational program which relies on parents to drive the participants or they must walk. Forty-eight people work in the program and many jobs must be turned down because there is no transportation.

Disabled American Veterans -Dave Dunnagan

Disabled American Veterans has been able to meet service requests.

Family Health West -Suzanne Hughes

Family Health West has been able to meet service requests for the most part and has not identified any unmet transportation needs.

Foster Grandparents -Jacque Pipe

Foster Grandparents has been able to meet requests for service. There is a need for additional economical transportation service for seniors.

Grand Junction Regional Center -Tony Earich

The grand Junction Regional Center is currently able to provide needed transportation service for its residents. There is a need for mass transit in general in the Grand Junction area. Most of the Regional Center Clients could not use mass transit due to their disability, but Regional Center employees could use the service.



Hilltop Health Services -Michelle Wendler

Hilltop Health Services always thought they would not be in the transportation business but they have had to be. Hilltop Health Services is able to provide most transportation service to its senior residents but not all needs are able to be met. They could use more service for senior's personal discretionary trips. Also, there are no alternatives to the individual transportation systems in the Grand Junction area. Clients could use a public transportation system for work. This is especially needed in the job training program. Youth transportation needs are also not being met.

Laidlaw -Dan Capps

Laidlaw is able to meet service requests they receive for school and charter service. One of the major concerns in the Valley is transportation. Efforts at improving transportation services need to be combined. More service is needed for the disabled and the service should be operated by one agency. There is also a need for transportation service for the blue collar work force as it has moved further out of town and needs transportation into town.

Mesa Developmental Services -Betty Taylor

Mesa Developmental Services is able to meet service requests only with additional purchased transportation services from MesAbility, Laidlaw and taxi companies. Also, carpooling assists in providing services. The Grand Junction area could use a public transit system.

MesAbility -Edward A. Estes

Transportation services for seniors and disabled are covered fairly well but not completely. There is a need for transportation for college students and people with low incomes. There are also parking and congestion problems in Grand Junction and a public transportation system could help with this.

Rocky Mountain HMO Time Bank -Marie Schmalz

Rocky Mountain HMO is able to meet service requests at this point but there is increasing demand. In addition to volunteer provided transportation, Rocky Mountain HMO works with MesAbility and Care Cars to meet service requests. There is a need for more transportation service in this area. MesAbility is always full and you need to call two weeks in advance to schedule a ride.

Sunshine Taxi -Elizabeth Williams

Sunshine Taxi is able to meet service requests except for occasional peaks. Sunshine Taxi has seen some potential for additional service and has tried several approaches without a response. Coors has been contacted regarding vanpools for employees and Sunshine Taxi has gotten no response. Marketing was conducted toward seniors to rideshare in a taxi to save money and to students to rideshare to the mall and there was no response.

Town of Collbran -Shirley Nichols

The Town of Collbran is able to meet transportation service requests and has not identified any unmet transportation needs.

Town of DeBeque -John Barry

The Town of DeBeque is able to meet transportation service requests. If there were more requests the Town would consider operating more days. There is a need for more transportation to the major cities.

Cost, Funding and Ridership

As in many communities without general public transportation, the transportation provided by the School District provides for the largest single source of ridership. Approximately 3.0 million trips are provided annually within the school bus system, at a cost of nearly \$3.0 million. Leaving school bus transportation out of the equation, twelve of the other transportation providers included in the inventory provided 260,894 one way trips in 1996. Although operational costs were not available from some of these providers, the eight who did respond indicated that

Exhibit III-3
Grand Junction/Mesa County Local Transportation Providers
Ridership and Funding Estimates

Transportation Provider	Fares	Estimated Operating Costs	Funding Sources	Estimated Annual Pass. Trips	Estimated Annual Miles
Care Cars	\$2.00 1st mile \$1.50 additional mi	N/A	Fares, Medicaid, Insurance	1,500 728 MesAbility 770 Medicaid	N/A
Center for Independence	Donations	N/A	Federal, Donations	N/A	N/A
Colorado West Mental Health	None	N/A	Insurance	10,400	N/A
Disabled American Veterans	None	N/A	DAV	2,600	24,000
Family Health West	\$3.00 R Trip GJ \$1.50 R Trip Fruita Resident's trips free	N/A	Residence Fees & MesAbility	13,000	2,300
Foster Grandparents	None	\$3,000	Grants & Donations	3,000	N/A
Grand Junction Regional Center	None	N/A	State	N/A	N/A
Hilltop Health Services*	None	\$120,000	Program Fees	35,000	86,000
Mesa Developmental Services	None	\$326,000	State, County, Donations	72,000	250,000
MesAbility Transit	\$1.25 or \$2.50 each way based on zone	\$427,921	FTA, OOA, Cities, Fares, Grants Mesa County	28,000	138,000
Rocky Mountain HMO Time Bank	None	\$1,800	HMO, Rider donations	3,100	N/A
Sunshine Taxi	\$2.50 1st mile \$.30 addit. 1/6 mi	\$612,000	Fares, Medicaid, Agency billings	89,594	638,000
Town of Collbran	Sr.-\$3.50 Rnd-trip Recreation-varies	\$9,300	Town funds & MesAbility AAA	2,300	8,600
Town of DeBeque	\$3.00 Round-trip	\$6,000	Town funds & MesAbility AAA	400	3,700
Subtotal		\$1,506,021		260,894	1,150,600
Laidlaw/School District	School-None Other-varies	\$2,953,000	School District Fees	3,000,000	1,600,000

Grand Total**\$4,459,021****3,260,894 2,750,600**

*figures include head injury and youth residential only



McDonald Transit Associates, Inc.

over \$1.5 million is being spent annually to provide the limited transportation that is available. Funding sources include Federal Transportation Administration (Section 9) funds (\$152,194), Medicaid Medical Transportation (Title XIX) reimbursements (\$165,000), Area Agency on Aging (Title III) funds (\$17,845), other Federal medical and social programs, State Developmental Disabilities funding, local government general fund contributions (\$115,818), private funding, donations and farebox revenue. Data on funding, service cost, and ridership for the transportation providers is summarized in Exhibit III-3.

Data on transportation budgets for some social service agencies and private providers is somewhat limited. Agencies whose primary function is something other than providing transportation services can have a difficult time calculating the exact amount of funds used for transportation purposes. For example, drivers are often responsible for duties other than driving, and driver expenses may be absorbed in the program's operating costs.

MesAbility Transit Brokerage

In order to understand the true nature of the current transportation services operating in Mesa County, it is important to understand the role played by MesAbility as a broker of transportation services. As noted previously, MesAbility directly provided over 28,000 trips in 1996, and indirectly provided an additional 50,000 trips. Over 27,000 of these additional trips were provided by Hilltop Health Services and Family Health West by means of vehicles provided and managed by MesAbility. These vehicles were secured with funding from the Federal Transportation Administration's Section 9 program and a local match raised by MesAbility from private sources.

MesAbility also purchased over 22,000 trips. Most of these (19,363) were secured through user-side subsidy contracts with Sunshine Taxi and Care Cars, but others were purchased from Family Health West (2,028), Mesa Developmental Services (705), and the towns of Collbran (255) and DeBeque (332).

MesAbility 1996 Budget: Revenue Sources

In order to ensure an accurate understanding of the current public transit service



provided by MesAbility, Exhibit III-4 shows the 1996 revenue sources for that service.

Exhibit III-4
MesAbility Revenue Sources

Operating Revenue Sources	Operating Revenues	Percentage
FTA (Section 9)	\$152,194	28.37%
Mesa County (Local Match)	\$83,681	15.60%
City of Grand Junction (Local Match)	\$26,781	4.99%
City of Fruita (Local Match)	\$5,356	1.00%
Private Foundations (Local Match)	\$44,723	8.34%
Area Agency on Aging (Title III)	\$17,845	3.33%
United Way of Mesa County	\$2,063	0.38%
U.S. Department of Education	\$67,850	12.65%
Fares	\$66,520	12.40%
Medicaid (Title XIX)	\$21,465	4.00%
St. Mary's Hospital	\$39,565	7.38%
Donations, Misc.	\$3,907	0.73%
Reimbursements	\$3,626	0.68%
Interest Earned	\$793	0.15%
Total Operational Revenue	\$536,369	100.00%

As can be seen from Exhibit III-4, the 1996 operating budget was funded from a wide variety of sources. Local government provided \$115,818 (21.59 percent of the total revenues). Exhibit III-5 shows revenue sources for capital equipment in 1996



Exhibit III-5
MesAbility 1996 Budget: Capital Revenue Sources

Capital Revenue Source	Capital Revenue
FTA (Section 9)	\$147,818
Private Foundations (Local Match)	\$22,810
Other Donations (Local Match)	\$9,722
Total Capital Revenue	\$180,350

If we combine the operating and capital revenue sources, we find that the total 1996 MesAbility Revenues were \$716,719. Local government paid 16.16 percent of the total revenue needs for MesAbility in 1996.

In order to summarize MesAbility's expenditures for 1996 we look first at purchased transportation (Exhibit III-6), and then at the total budgeted expenditures (Exhibit III-7).

Exhibit III-6
MesAbility 1996 Budget: Purchased Services

Purchased Services	
Contract Labor, Taxi (User Side Subsidy)	\$98,469
Contract Labor, (Family Health West)	\$8,200
Purchased Services (Collbran, DeBeque)	\$4,112
Purchased Services (Mesa Dev. Services)	\$6,016
Purchased Services Total	\$116,797



Exhibit III-7
MesAbility 1996 Budget: Expenditures

Total MesAbility Expenditures		
Purchased Transportation	\$116,797	16.32%
Direct Operational Expenditures	\$290,970	40.65%
Maintenance Expenditures	\$28,284	3.95%
Capital Expenditures	\$180,349	25.19%
Administrative Expenses	\$99,426	13.89%
MesAbility Expenditures	\$715,826	100.00%

MesAbility Expenditures Analysis

As a Transportation broker, MesAbility gets a good return on its expenditures. Removing capital equipment costs from the total, MesAbility provided 78,214 trips for \$535,477 in 1996, which is a cost per trip of \$6.85. Breaking this down further -- in the purchased transportation area, MesAbility did very well, buying 22,683 trips for \$116,797; an average cost per trip of just \$5.15. Removing both the costs of purchased transportation and capital equipment from the above list of total expenditures, MesAbility secured another 55,531 trips for a cost of \$418,680, which is an average cost per trip of \$7.54.

These are fairly low costs per trip for a demand-responsive paratransit system, and serve to illustrate the value of the established coordination relationships between MesAbility and other transportation providers in the area. These low costs figures are possible because of the 27,513 trips directly provided by Hilltop and Family Health West, which cost MesAbility only administrative time, most of which is a fixed cost. If one did not count the 27,513 trips provided by Hilltop and Family Health West, the cost per trip for MesAbility's directly provided 28,018 trips would be \$14.94 per trip. This cost per trip is more in line with industry standards, and is closer to what a new provider would have to expect to spend.



Care Cars

1227 N. 23rd #201

Grand Junction

(970)245-8949

Aggie Wier

Care Cars is a private company which provides health care transportation for persons of all ages as well as unrestricted service to persons who use wheelchairs. The service is provided with four vehicles: one minibus with a lift, one modified van with a lift, one minivan and one sedan. The service areas include Grand Junction, Fruita, Delta and Montrose. Service hours vary but are generally 8:00 a.m. to 6:00 p.m. Monday through Saturday. Advance reservations are recommended.

The fares for service vary. The basic fare for medical trips is \$2.00 for the first mile and \$1.50 for each additional mile. Group rates are available from Delta and Montrose. The fare for the unrestricted lift service is \$2.50 for the first mile and \$1.75 for each additional mile. In 1996 a total of 15,000 trips were served.

The service is funded by fares, Medicaid and insurance. Care Cars is not always able to meet the demand for service. For example, more people need to get from Delta and Montrose to Grand Junction for dialysis but there is no more space on the van.



Center for Independence

1600 Ute Ave. Suite 100

Grand Junction

(970) 241-0315

Mary Lynn McNutt

The Center for Independence is a private nonprofit agency serving thirteen counties. The agency provides a number of programs to assist persons with disabilities. The Center for Independence provides transportation services to their programs as resources allow. Two vehicles are operated by the Center: one van with a lift and one minivan. The Center also contracts with Laidlaw for transportation services on occasion. The transportation services provided by the Center for Independence are funded through Federal government programs such as vocational rehabilitation and services to vision impaired seniors.

Transportation is always an issue for the Center for Independence in providing services. They have managed to serve their programs fairly well. However, transportation needs for persons with disabilities in general are not fully served. This is especially true in the evenings when MesAbility does not operate and alternatives are limited and expensive.



Colorado West Mental Health

740 Gunnison
Grand Junction
(970) 245-3270
Joe O'Conner

Colorado West Mental Health is a private nonprofit agency serving people with chronic mental illnesses. Transportation service is provided to program clients in Mesa County. Service is generally provided in the daytime and evening hours Monday through Friday on both a prescheduled and demand basis. A few trips are provided after hours by Sunshine Taxi which is reimbursed by Colorado West Mental Health. Transportation service is provided with thirteen vehicles: one modified van with a lift, seven 15-passenger vans, four sedans and one truck.

There is no fare charged for the service. The service is funded through client insurance. Colorado West Mental Health has an estimated 200 boardings per week for an annual ridership of more than 10,000 passengers. Colorado West Mental Health is able to meet most of its current demand for service but has expanded dramatically in recent years to meet this demand. Additional service could assist in areas such as the work program where jobs are occasionally turned down due to lack of transportation.



Disabled American Veterans

2121 North Ave.

Grand Junction

(970) 242-0731

Dave Dunnagan

Disabled American Veterans is a private nonprofit agency which provides transportation services throughout Mesa County for medical appointments. Any veteran is eligible to use the service. Disabled American Veterans operates one minivan with volunteer drivers. There is no fare for the van service. Disabled American Veterans funds the service through their general fund.

Transportation service is provided Monday through Friday generally from 8:00 a.m. to 4:00 p.m.. Reservations are preferred three days in advance. Other rides will be provided as space is available. The Disabled American Veterans service operates an estimated 24,000 service miles annually. An average of five people are transported daily to and from appointments for an estimated 2,550 trips annually. Disabled American Veterans is able to meet the current requests for service.



Family Health West

228 N. Cherry

Fruita

(970) 858-2148

Suzanne Hughes

Family Health West is a private nonprofit agency which owns several retirement housing complexes. The Oaks, Independence Village and The Willows are all a part of Family Health West. Family Health West generally provides prescheduled group trips to the residents of The Oaks and The Willows. Demand response service is also available to non-residents (general public) who are seniors or disabled on Tuesdays and Thursdays. Residents of Independence Village are considered general public riders. The hours of service vary, but are usually 9:00 a.m. to 5:00 p.m.. Service is provided within Fruita and to Grand Junction.

Family Health West operates four vehicles: one van, two minivans with lifts and one sedan. The two minivans are leased from MesAbility. There is no fare for service from The Oaks and The Willows. The fare for the general public service is \$3.00 round-trip to Grand Junction and \$1.50 round-trip within Fruita. The service is funded by residence fees and MesAbility. An estimated 12,800 rides are provided annually. The majority of these riders are Family Health West residents. Family Health West feels it is generally able to meet the demand for service.

Foster Grandparents

2518 N. 7th St.

Grand Junction

(970) 244-2588

Jacque Pipe

Foster Grandparents is a program sponsored by St. Mary's Hospital. The program provides transportation to assignments for its volunteers who no longer drive. Service is provided at no charge to the volunteers who work five days per week at St. Mary's Hospital or local public schools. Twelve one-way trips are provided daily with one minivan. A preset pick up route runs daily Monday through Friday.

Federal funding was obtained for the purchase of the vehicle. The annual operating expense for the service is \$2,000-\$3,000. Operating expenses are covered through grants and donations from agencies such as Mesa County, United Way and Kiwanis. The agency is able to meet the current demand for service from their volunteers, however, it is felt that additional transportation service for seniors is desirable.



Grand Junction Regional Center

2800 D Road
Grand Junction
(970) 245-2100
Tony Earich

The Grand Junction Regional Center is a State agency which operates a State home with eleven dormitories and eleven group homes. The Regional Center provides transportation services to its residents. Regional Center transportation service operates in the Grand Junction area twenty-four hours a day, 365 days a year. Transportation is provided on a demand response basis and there is no fare for the service. The service operates twenty-six vehicles: six minibuses with lifts, eight modified vans with lifts, one van with a lift, five vans, one minivan, three Jeeps and two sedans. The Regional Center is able to meet its resident's demands for transportation service. Most of the residents would not use a general public transportation system as only a small percentage of the residents are capable of utilizing such a service.

Hilltop Health Services/Resource Center

1405 Wellington
Grand Junction
(970) 242-4400
Sally Schaffer

Hilltop Health Services is a private nonprofit agency which provides a variety of programs. These programs include residential services for persons who have suffered head injuries, juvenile shelter and detention, and senior retirement and assisted living. In addition, as a part of Hilltop Health Services, the Resource Center provides job training and youth health programs. All of these programs have transportation needs. Hilltop Health Services has had to run their own transportation because public transportation is not available. Transportation service for Resource Center clients is not currently provided directly by Hilltop Health Services, however, taxis are used to transport their clients. The Resource Center expenses for taxi services generally run \$800-\$900 monthly. Hilltop Health Services feels there are transportation needs that are not currently being met.

Hilltop Health Services currently operates nine vehicles to service their youth services and head injury program residential clients. Transportation is operated on a demand response basis in the Grand Junction area. Reservations are preferred at least one day ahead. There is no fare for this service. The annual operating cost for these transportation services is an estimated \$120,000 which is funded through resident fees. An estimated 35,000 trips are served annually operating approximately 86,000 miles.

Transportation is also provided at The Atrium retirement residence. Two vehicles are used to provide this service: one minibus with a lift and one minivan. Transportation services are provided for medical trips as well as group shopping and other trips. An estimated 30,000 trips are served annually.



Laidlaw

Mesa County Valley School District 51
340 N. 24th Ct.
Grand Junction
(970) 241-1570
Dan Capps

Laidlaw is a private company which provides transportation service for the Mesa County Valley School District 51, as well as charter and leasing services. The school district funds service for transportation to and from school and other school activities. Laidlaw operates 103 large and medium size buses. Most of the buses are lift-equipped. Laidlaw provides approximately three million trips and runs 1.6 million miles annually.



Mesa Developmental Services

950 Grand Ave.

Grand Junction

(970) 243-3702

Betty Taylor

Mesa Developmental Services provides a variety of services to persons with developmental disabilities. Transportation services are provided to agency clients for both program and personal needs. Service hours vary according to the needs of the clients and operate at all hours. Mesa Developmental Services operates twenty-eight vehicles serving the areas of Grand Junction and Clifton. Transportation services are also purchased from MesAbility, Laidlaw and Sunshine Taxi for their clients.

There are no restrictions on trip destinations for this service. Reservations are usually made by clients, but are not required. There is no fare for the service. An estimated 72,000 trips are served annually operating an estimated 250,000 vehicle miles. Mesa Developmental Services transportation is funded with State and County funds as well as donations. The operating budget for transportation service is approximately \$326,000 annually. This includes approximately \$17,000 for purchased transportation. Mesa Developmental Services would not be able to meet their needs without the additional purchased transportation. Many of the clients of Mesa Developmental Services could use fixed route public transportation if it was available.



MesAbility Transit

518 28 Road Suite A-101

Grand Junction

(970) 245-2626

Edward A. Estes

MesAbility is a private nonprofit agency which provides prescheduled and demand responsive transportation services to seniors and persons with disabilities in the urbanized area of Mesa County. Service is provided Monday through Friday from 7:30 a.m. to 4:30 p.m. and from 8:00 a.m. to 4:30 p.m. on Saturdays. In 1996 MesAbility was operating eleven vehicles: six minibuses with lifts, four modified vans with lifts and one modified van with no lift. They received three new minibuses with lifts at the end of 1996 which went into service in 1997, so they are currently operating fourteen vehicles. Vehicles were secured by MesAbility with FTA Section 9 funding and a local match that came from private, rather than local governmental sources.

The fare for van service is \$1.25 or \$2.50 each way depending on the zones. Funding for the service is provided by FTA, OAA, Mesa County, the Cities of Grand Junction and Fruita, fares, grants and donations. The total annual operating cost for MesAbility service is \$535,458.

More than 28,000 rides were directly provided in 1996 with approximately 73,015 vehicle miles. MesAbility also runs a "user-side subsidy" program, providing discounted taxi coupons. MesAbility clients may purchase \$20.00 worth of taxi coupons for \$12.00. This service cost \$91,004 in 1996, providing 19,363 trips, with approximately 43,000 vehicle miles.

In addition to this direct service, MesAbility administers contracts for the use of all FTA equipment used by Hilltop and Family Health West, and purchases transportation from Mesa Developmental Services, Family Health West, and the cities of DeBeque and Collbran.



Rocky Mountain HMO Time Bank

2775 Crossroads Blvd.

Grand Junction

(970) 244-7777

Marie Schmalz

Rocky Mountain HMO is a private nonprofit agency which operates the Time Bank program. The Time Bank program is designed to enable clients to remain living independently. Time Bank provides a variety of services with volunteer assistance. Through the Time Bank program transportation service is provided to Rocky Mountain HMO members throughout Mesa County. Volunteers drive and utilize their own vehicles to transport the members. Volunteers are reimbursed \$.10 per mile if requested.

Transportation service is available seven days a week. Hours of service vary according to demand. Trips served are generally medical and shopping or other errands. However, service is also available for recreation and other trips. Requests for transportation service at least two days in advance are preferred. Approximately 3,100 trips are served annually with an estimated 2,900 service hours. The cost for operating the transportation service through the time bank is \$1,500-\$1,800 annually. Funding for the transportation service is from the HMO along with some donations from riders.

At this point the Time Bank is able to meet its requests for service, but demand is increasing. HMO clients also utilize MesAbility and Care Cars. However, MesAbility is very full and may require reservations far ahead.



Sunshine Taxi

3009 Aspenwood Ct.
Grand Junction 81504
(970) 434-3234
Elizabeth Williams

Sunshine is a private for profit company which provides general taxi service as well as package delivery and tours. Service is provided generally in Mesa County 24 hours per day, seven days per week. The fare for service is \$2.50 for the first mile and \$.60 for each 1/6 mile thereafter. Extra passengers are \$.60 each except for those less than six who ride free. Service is provided with twelve vehicles: eight sedans, three minivans and one van with a lift. There are generally nine drivers on a day shift and five drivers at night.

In addition to general taxi service, a number of local agencies fund taxi rides for their clients. Service is provided to clients of Collbran Job Corps, the Veterans Hospital and Mesa Developmental Services which are billed directly for the service. Sunshine Taxi also serves Medicaid clients receiving Title XIX funding and a user-side subsidy for taxi service is funded by MesAbility for their clients. The total for all Sunshine Taxi services in 1996 provided approximately 85,600 trips at an operating cost of \$612,000.

Sunshine Taxi is able to meet current demand for service and is willing to accommodate any special requests for service they can. They have promoted ridesharing via a taxi to local companies, students and the elderly but have not had any response.



Town of Collbran

115 W. High
Collbran
(970) 487-3089
Shirley Nichols

The Town of Collbran is a public agency which provides transportation service with one modified van. Service is provided within Collbran and to the Grand Junction area. Service for seniors is provided on the first and third Thursday of each month. The fare is \$3.50 round-trip and is based on the ability to pay. If the van does not fill up with seniors, others may ride. Riders may also be picked up in Mesa or Molina on the way to Grand Junction. An average of five people ride the senior runs twice a month operating approximately 350 miles each month.

Transportation service is also provided for recreation programs in the summer. In June through August more than 2,000 rides are provided to swimming and other programs. The fare for recreation transportation varies.

The Town of Collbran has an operating budget of approximately \$9,300 for their transportation services. Funds in the amount of \$6,500 for the summer recreation transportation and \$1,500 for other transportation are provided from the Town's general fund. The Town of Collbran also receives a grant of \$1,300 from MesAbility for senior van service drivers. The Town of Collbran is able to meet the requests for service and has not identified any unmet transportation needs.



Town of DeBeque

381 Minter

DeBeque

(970) 283-5531

John Barry

The Town of DeBeque provides a van service from DeBeque to Grand Junction for seniors. Service is provided once a week on Fridays. The service is operated with one van. The van leaves for Grand Junction in the morning and returns in the late afternoon. The fare for the service is \$3.00 round-trip. The service provides an estimated 400 rides annually operating approximately 5,000 miles. The Town of DeBeque is able to meet the demand for this service. The annual operating cost of the service is \$6,000. These costs are funded by the Town General Fund (\$3,000) and a grant from MesAbility (\$3,000).



Other Transportation Providers

The following are additional Transportation Providers who were contacted by the Mesa County Civic Forum as of April 22, 1997. They are not included with the preceding providers because we were not able to get the same level of response to our questions from these providers.

Transportation Provider	Type of Agency	Eligible Riders	Vehicle Inventory
First Assembly of God 402 Grand Ave.	Church	Church Members	1- WC Bus, 2- 15 pass vans 1- 66 pass. bus
Days Inn, Horizon Dr.	Private for Profit	Visitors	Uses Sunshine Taxi
Hilton Hotel	Private for Profit	Hotel Visitors	N/A
Holiday Inn	Private for Profit	Hotel Visitors	N/A
Ramada Inn	Private for Profit	Hotel Visitors	N/A
Head Start	Public Agency	Head Start Children and Parents	1 Vehicle for each Center
Atrium - Holiday Retirement Corp., Salem Oregon	Retirement Center	Residents	1-WC Bus 1-van
Mesa View -Holiday Retirement Corp., Salem Oregon	Retirement Center	Residents	1-WC Bus
Community Care 2825 Patterson Rd.	Nursing Home	Residents	1-van
First Presbyterian Church 3940 27 1/2 Road	Church	Church Members	1- WC Van 1- 15 pass. van



IV Transit Need Analysis

Introduction

This report presents a Transit Need Analysis for Mesa County. Transit need analysis is the determination of need for public transportation trips in a given population. It may be helpful at the outset to distinguish "Transit Need" from "Transit Demand."

Everyone "needs" to make trips during the course of a day, but not everyone "needs" to make that trip on a transit vehicle. Transit need analysis attempts to estimate how many transit trips are needed in a given region. Typically, there are a certain number of people who are "transit dependent" and thus "need" transit in any region. These include:

- Persons with mobility impairments or disabilities that keep them from being able to drive an automobile;
- Elderly persons who can no longer drive, or no longer wish to drive;
- Low income people who cannot afford an automobile (including both unemployed and the working poor);
- One wage earner of a two-wage earner household where only one vehicle is owned, or employed persons who are temporarily without a vehicle due to mechanical difficulties, license suspension, or other factors;
- Students (College, Middle School, and many High School); and
- Persons who choose to use transit out of concern for the environment, a desire to escape traffic congestion, a desire to save money, or other reasons.



Transit "demand" is the number of people who can actually be expected to ride on a given transit mode if it is available. Many factors affect demand levels, from basics such as whether the transit system goes where a person needs to go when they need to go there, to the less tangible attitudes that make forecasting an inexact science. In order to address the complexity of this problem several different methods for estimating needs have been developed and are used below.

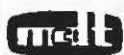
Methodology

Telephone Survey

The household telephone survey completed by NuStats International strongly indicated a need for public transit in the Grand Junction / Mesa County urbanized area. When respondents were asked if they felt a need for a county-wide or citywide public transportation system in the Grand Valley, 64.9 percent said definitely, 21.8 percent said probably, 6.0 percent said probably not, 2.2 percent said definitely not and 5.1 percent didn't know. The percentage who felt a need for public transportation was thus 86.7 percent, and the percentage opposed was a low 8.2 percent. This is an extremely high percentage of persons who felt a need, and supports the conclusion that there would be a demand for general public transit.

When asked if anyone in their household would use a citywide public transportation system two out of three respondents indicated they would. When asked if they would move to a residence closer to a bus route, 5.0 percent of respondents indicated that they would move. When asked if they would look for a new job closer to a bus system, 6.5 percent of respondents indicated that they would. While no transit system would ever actually have two thirds of the population riding, these numbers show that a significant number of persons would go to some lengths in order to use a transit system designed to serve the general public.

Transit need estimates indicate the number of trips which are required by a given population under optimal transit conditions. This means that the need is equal to the number of trips which would be made if transit service were provided at



convenient (frequent) times to all locations within the study area, on comfortable, easily accessible vehicles, etc. **The total of these conditions can rarely, if ever, be met by public transit, because public entities generally do not have the resources to provide this maximum level of service.**

Reports from Current Service Providers on Unmet Needs

Our report on Existing Transportation Providers found that there were unmet transportation needs in the region. Suggestions for improving transportation services in the Grand Junction/Mesa County area were made by many of the fifteen agencies surveyed for the transportation providers inventory. A majority of the current transportation providers agreed that they were barely able to meet the transportation needs for their own agency services, much less the needs their clients had for more general transportation. Specific service needs mentioned during the inventory included the following:

- * Public transit for the general population
- * Increased capacity on MesAbility to reduce reservation time needed
- * More transportation options for seniors
- * More transit options for persons in job training programs
- * More transportation options for persons with disabilities

The gaps mentioned by transportation providers were also mentioned by health and human service agencies in the region. Medicaid Medical Transportation paid \$136,000 for transportation in 1996. They reported that much of this expenditure could have been saved if general public transit had been an available alternative. The Area Agency on Aging also reported that many seniors find transportation a problem. The new "Welfare to Work" program was also mentioned as posing a serious dilemma: nearly 1,100 persons who are currently on welfare will be required to enter job training or find jobs within the next two years. Many of these persons have no means of transportation. With an employed person making two work trips per day, on an average of 250 days each year, that means 550,000 trips must be found annually in order to meet the Welfare to Work guidelines.

Demographic Data on Transit Dependent Populations

As mentioned previously, certain portions of every community are "transit dependent." These are persons who cannot, for various reasons, drive their own private automobile. We will be using some of these numbers in a need estimation regression model later in this report. Let us briefly look at the demographic information on some of these populations now.

There is considerable variation among Mesa County communities with respect to the number of **households without automobiles** or other vehicles. According to the U.S. Census, the City of Grand Junction has a surprisingly high percentage of households without vehicles (9.5 percent) which is 37 percent higher than the average for the State. Persons without vehicles are a major source of general public transit ridership.

A significant portion (13.6 percent) of the County's population was **65 years of age or older** in 1990, and this percentage has increased rapidly. Grand Junction's proportion of elderly (17.7 percent) was 86 percent higher than the State average! By 1995 the Mesa County population of those aged sixty or older had climbed to 20,464, which is equal to 19.5 percent of the population. The area seems to be becoming more of a retirement center. Transfer payments, which include such income as Social Security, Social Security Disability, veteran benefits, and other similar income for the region, grew as a percentage of total personal income in the County from 14.8 percent in 1984 to 19.2 percent in 1994. Some census block groups in downtown Grand Junction have a 50 percent elderly population. These are people who could, and would, ride on a fixed route system.

Historically, **members of minority populations** have a higher level of transit usage than the population as a whole. Between 1990 and 1994 the Mesa County minority population grew from 9.79 percent of the population to 10.36 percent of the population. Hispanic population grew from 7.85 percent of the population to 8.32 percent of the population, with an average annual growth of 4.04 percent (compared to a 2.37 percent annual growth for the White Non-Hispanic population).



Standard Need Estimation Techniques

To get a broad view of potential transit demand we will start with a peer cities analysis. Using the actual experience of transit ridership in other cities of similar population yields a rough approximation of what can be expected in the Grand Valley. This will be followed by three other commonly accepted methods for estimating the level of transit need:

- Observed national employee transit use percentages
- Observed national transit modal splits, and
- A regression model using socioeconomic data to calculate need

We will start with the peer city comparative analysis.

Peer City Analysis

According to the 1990 census, there were thirty-seven urbanized areas in the United States with between 70,000 and 80,000 population. Of the urbanized areas the size of Grand Junction, 84% had some form of public transportation, with only six of the thirty-seven urbanized areas having no form of public transportation, and many of those were parts of larger metropolitan areas.

Of the thirty-one urbanized areas with a population between 70,000 and 80,000 with public transportation, twenty-five (84%) had both a fixed-route (FR) service and a demand-responsive (DR) service. One area, Hagerstown, Maryland, had a fixed route service only. Five areas, including Grand Junction, had a demand-responsive system only, with no fixed-route service. Eighteen of the peer cities with both fixed route and demand-responsive service had data available for the 1995 reporting year, and are listed in Exhibit IV-1.

As can be seen in Exhibit IV-1, the average system with 1990 population characteristics similar to the Grand Junction urbanized area averaged 785,676 fixed route trips and 44,232 demand-responsive trips, for a total ridership of 829,908 trips. The fixed route ridership ranged from a low of 57,667 in Yuba



Exhibit IV-1 Mesa County Peer System Comparison

City	State	System	Population	Total Fleet		Annual Ridership		Operating Costs
				FR	DR	FR	DR	
Altoona	PA	Altoona Metro Transit (AMTRAN)	76,551	29	31	767,700	9,700	\$2,120,500
Anderson	IN	City of Anderson Trans. System	74,037	10	5	254,709	10,478	\$1,372,109
Annapolis	MD	Annapolis Dept. of Public Trans.	78,590	15	2	621,088	26,198	\$1,523,600
Athens	GA	Athens Transit System (ATS)	73,282	25	3	1,319,726	9,452	\$1,704,500
Battle Creek	MI	Battle Creek Transit (BCT)	77,921	19	8	739,060	34,885	\$2,152,500
Bay City	MI	Bay Metro. Trans. Authority	74,118	32	19	542,700	73,725	\$3,891,200
Bloomington	IN	Bloomington Transit	71,440	17	3	866,691	12,573	\$1,949,100
Fayetteville	AR	Fayetteville Area Trans. Auth.	74,880	20	4	1,491,244	9,444	\$784,900
Greeley	CO	City of Greeley (The Bus)	71,578	13	5	418,000	23,900	\$1,368,200
Iowa City	IA	Iowa City Transit	71,372	21	9	1,491,021	51,002	\$2,923,300
Jackson	MI	City of Jackson Trans. Authority	78,126	14	28	759,936	102,064	\$2,805,500
Johnstown	PA	Cambria County Transit Authority	77,841	27	2	1,560,681	180,438	\$3,602,400
Mansfield	OH	Richland County Transit (RCT)	76,521	11	8	332,220	24,630	\$1,037,300
Redding	CA	Redding Area Bus Authority	78,364	15	22	592,870	32,543	\$2,717,800
St. Cloud	MN	St. Cloud Metro. Transit Commission	74,037	27	16	1,628,103	60,224	\$2,704,200
St. Joseph	MO	St. Joseph Express	73,395	16	2	266,436	7,700	\$1,230,800
Terre Haute	IN	Terre Haute Transit Utility	77,019	17	2	432,316	475	\$1,111,800
Yuba City	CA	Yuba-Sutter Transit Authority	77,167	11	9	57,667	126,752	\$1,150,700
Grand Junction	CO	Mesa County (MesABILITY)	71,938		32		118,100	\$371,200
Averages			75,347	19	10	785,676	44,232	\$2,008,356

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City, California (but note the 126,752 demand-responsive trips), to a high of 1,628,103 in St. Cloud, Minnesota. The demand-responsive ridership ranged from a low of 455 in Terre Haute, Indiana, to a high of 180,438 in Johnstown, Pennsylvania. The average fleet size was nineteen fixed route vehicles and ten demand-response.

From this peer cities comparison, we get a rough estimate of potential ridership in the Grand Valley. We should especially note that Greeley, the only other Colorado city in this comparative analysis, carried 418,000 fixed route and 23,900 demand responsive riders, for a total of 441,900 trips. Actual ridership will depend heavily upon the type of transit service offered.

Employee Transit Use

Nationally, 1.8 to 2.5 percent of a community's employees use public transit when it is available. To insure that our estimates are conservative, we will utilize the low end of this scale and assume that 1.8 percent of the employee's would use public transit. It is typically assumed that each employee would make two trips per work day, for approximately 250 days per year. Based on a 1996 estimate of 51,611 employees in Mesa County¹, the estimated employee transit use can be calculated as follows:

$$\begin{aligned} 51,611 \times 2 \times 250 &= 25,805,500 \text{ total annual one-way person trips} \\ 25,805,500 \times 1.8\% &= 464,499 \text{ annual one-way employee transit trips} \end{aligned}$$

Modal Split

When a choice of different modes of transportation are available, national studies have shown that public transit will be chosen for 0.5 (for new service) to 1.0 percent of those daily trips. This "modal split" is often used to estimate potential transit usage. With a nationally estimated average of 3.5 total one-way trips per person per day, and an estimated population of 105,408, general public transit use for a new system can be calculated as follows:

¹ Source: Colorado Department of Labor and Employment

$$\begin{aligned}105,408 \times 3.5 &= 368,928 \text{ one-way trips per day} \\368,928 \times 365 \text{ days} &= 134,658,720 \text{ annual trips} \\134,658,720 \times 0.5\% &= 673,294 \text{ annual one-way transit trips per year}\end{aligned}$$

Under optimal conditions this new system estimate might be expected to grow to as high as 1,346,588 transit trips after a few years of successful operation.

Department of Transportation Transit Need Regression Model

The United States Department of Transportation has developed a regression model for estimating transit need that is based on socioeconomic data. It uses the total population, the number of elderly, the number of households without an automobile (autoless households), and the minority population, as predictors of transit need. The regression formula is:

$$0.0493 \times (\text{Population}) + 0.658 \times (\text{Minority Population}) + 0.578 \times (\text{Elderly}) + 0.115 \times (\text{Autoless Households}) = \text{Number of trips per week.}$$

Using population estimates for Mesa County, this equation becomes:

$$\begin{array}{rcl}0.0493 \times (105,408) & = & 5,197 \\+ 0.658 \times (11,169) & = & 7,349 \\+ 0.578 \times (20,464) & = & 11,828 \\+ 0.115 \times (4,605) & = & \underline{530} \\ \text{Total} & = & 24,904 \text{ trips per week}\end{array}$$

$$24,904 \text{ trips} \times 52 \text{ weeks} = 1,295,008 \text{ annual trips.}$$

Based on this Department of Transportation regression model, the total annual transit need for Mesa County is approximately 1,295,000 one-way annual passenger trips.

Summary of Standard Methods

Our peer cities comparative analysis showed an average transit demand of 829,908 transit trips for urbanized areas with population characteristics similar to the Grand



Valley. The standard methods of need estimation determine a transit need ranging from 464,499 for employee need alone to 1,295,008 overall need using the regression method. The estimates derived from standard methods are summarized below:

<u>Method</u>	<u>Estimate</u>
Peer Cities Comparative Analysis	829,908
Employee Need	464,499
Total Need - Modal Split	673,294
Total Need - Regression Model	1,295,000

It is important to clarify the implications of the estimated transit need. Again, it bears repeating that transit **need** indicates the number of trips which are required by a given population under optimal transit conditions. This means that the need is equal to the number of trips which would be made if transit service were provided at convenient (frequent) times to all locations within the study area, on comfortable, easily accessible vehicles, etc. **The total of these conditions can rarely, if ever, be met by public transit, because public entities generally do not have the resources to provide this maximum level of service.**

Transit demand, therefore, must be carefully estimated for each service alternative, keeping in mind what is estimated as the maximum need. Before one can estimate the demand, one needs to define the service alternatives. We will turn next to these service alternatives.

V Service Options

Introduction

The purpose of this report is to present a variety of possible transit service options for the Grand Junction/Mesa County urbanized area. An analysis of the transit needs of the Grand Valley strongly indicates that current transit needs are not being met by existing services. The existing system leaves gaps in service for the elderly and persons with disabilities, and does not address the needs of the general public at all.

While a wide variety of general public transit service options would be appropriate for the Grand Valley, it is especially important to adequately provide for the mobility of the elderly and persons with disabilities in Mesa County. For this reason we begin by analyzing what will be required to maintain the current coordinated demand-responsive level of service. No matter the decision made concerning the expansion of services to provide for the needs of the general public, the current level of service for the elderly and persons with disabilities should be maintained or improved upon.

Within the maintenance option this report operates under the assumption that further efforts at coordination between all transportation providers will be pursued. Coordination of paratransit services is not only required by the Federal Transit Administration, it also provides for a greater efficiency and effectiveness in the use of scarce resources. Planning for a process of greater coordination will be part of the five-year Transit Development Plan regardless of other service options chosen. The full elaboration of that coordination recommendation will be included in a later report.

Following the maintenance option is a discussion of options for expansion of the current paratransit system. This is followed by a brief discussion of fixed route service, its cost and benefits, and options for an incremental approach to providing general public transit. What follows is the description of a set of service options with a discussion of factors that would contribute to their success. The intent here



is to present a sufficient level of detail on each service option to allow for discussion and decision as to which option(s) should be planned for over the next five years. This decision would then be analyzed further and presented as part of the five-year Transit Development Plan.

Option One: Maintain Current Coordinated Demand-Response Service Levels

The service currently provided by MesAbility is a coordinated paratransit system. There are four main components of this coordinated system. MesAbility:

- Manages a "user-side subsidy" or taxi cab voucher program;
- Directly provides a "demand-response" van service;
- Purchases trips from the cities of DeBeque and Collbran as well as Family Health West and Mesa Developmental Services; and
- Maintains equipment contracts with Hilltop and Family Health West.

User-Side Subsidy: The "User-Side-Subsidy" program provides a subsidy, in the form of discounted tickets, to qualified users of the two private-for-profit taxi cab companies. Available to the elderly and persons with disabilities, participants purchase twenty dollars worth of tickets from MesAbility for twelve dollars, then use the tickets towards the full fare of the taxi trip. As noted in our report on current services, MesAbility spent \$91,000 on this program in 1996. The average fare to the passenger was \$7.08, with the subsidy paying for \$4.69, so passengers were paying an average of \$2.39 each way out of their own pockets.

Demand Responsive Accessible Van Service: The directly provided MesAbility trips are categorized as a "demand-responsive," or "dial-a-ride," paratransit service. They are given these terms because passengers are generally required to telephone their trip requests at least 24-hours prior to their appointments, after which a scheduler or dispatcher arranges the ride in the most effective way possible. This type of service generally picks people up at their home and takes

them to their destination, and at a predetermined time comes back to pick them up and return them to their home. While on the vehicle other passengers may be picked up and dropped off, so this is a "shared ride" system as opposed to the typical single party of a cab ride. Most trips are "door-to-door" and many passengers require assistance, so this type of service tends to be fairly expensive. As previously noted, the actual cost per trip is currently running \$14.94 per trip.

Purchased Transportation: MesAbility contracts with other agencies to pay a certain amount to subsidize trips that would otherwise have to be carried on MesAbility vehicles. The cost effectiveness of these contracts will vary from agency to agency. MesAbility paid \$7,700 for 2028 trips from Family Health West, which works out to just \$3.80 per trip. The City of Collbran received \$4,112 in Area Agency on Aging funding through MesAbility to provide just 255 trips, which works out to \$16.13 per trip. Such contracts are a key element to any coordinated transportation service.

Equipment Contracts: Finally, MesAbility is under contract to manage the use of vehicles secured through Federal Transit Administration funding, but operated by other agencies. A number of agencies have coordinated with MesAbility in this way over the last six years. In 1996 Hilltop and Family Health West participated, but Hilltop dropped out at the end of the year, leaving only Family Health West participating in 1997. This is a very effective use of resources for MesAbility, since the actual operating costs are paid by those other two agencies. While MesAbility does have administrative responsibilities and costs entangled in this coordinated service, most of those costs would already be encumbered in the running of MesAbility's direct demand-response service.

Discussion: In order to maintain the current level of services the assumption is that costs, service hours, number of vehicles in service, vehicle hours of service, vehicles miles of service, and ridership will continue at 1996 levels. MesAbility is providing service Monday through Friday from 7:30am to 4:30pm and from 8:00am to 4:30pm on Saturdays. In 1996 MesAbility was operating eleven vehicles: six minibuses with lifts, four modified vans with lifts and one modified van with no lift. They received three new minibuses with lifts at the end of 1996 which went into service in 1997, so they are currently operating fourteen vehicles. In 1996 they provided 78,214 trips, and covered 170,214 vehicle miles, at an



operating cost of \$535,458.

To maintain current levels of service, adequate funding needs to be provided. In order to discuss funding needs, it is informative at this point in the discussion to revisit the funding sources MesAbility uses to meet operating and capital equipment costs. MesAbility's 1996 revenue sources are listed in Exhibit V-1. We have listed both Operating and Capital Equipment Revenues.

Exhibit V-1 MesAbility's 1996 Revenue Sources

Operating Revenue Sources	Operating Revenues	Percentage
FTA (Section 9)	\$152,194	28.37%
Mesa County (Local Match)	\$83,681	15.60%
City of Grand Junction (Local Match)	\$26,781	4.99%
City of Fruita (Local Match)	\$5,356	1.00%
Private Foundations (Local Match)	\$44,723	8.34%
Area Agency on Aging (Title III)	\$17,845	3.33%
United Way of Mesa County	\$2,063	0.38%
U.S. Department of Education	\$67,850	12.65%
Fares	\$66,520	12.40%
Medicaid (Title XIX)	\$21,465	4.00%
St. Mary's Hospital	\$39,565	7.38%
Donations, Reimbursements, Misc.	\$8,326	1.55%
Total Operational Revenue	\$536,369	100.00%



Capital Revenue Source	Capital Revenue
FTA (Section 9)	\$147,818
Private Foundations (Local Match)	\$22,810
Other Donations (Local Match)	\$9,722
Total Capital Revenue	\$180,350

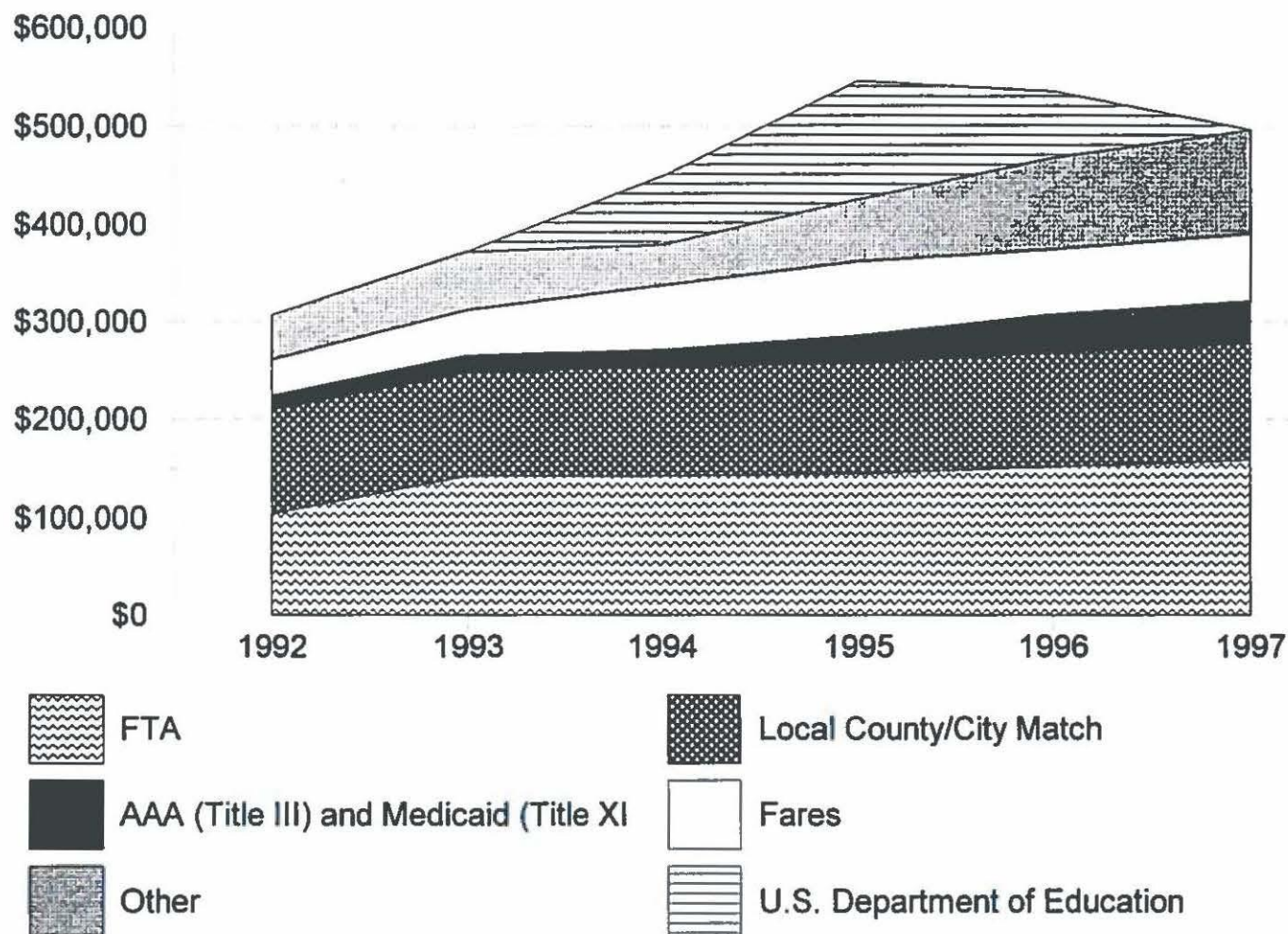
Two points emerge from a careful study of the above revenue sources:

- The first is that \$44,723 in local match for operations, and \$32,532 in local match for capital equipment, came from "soft money." Private foundations were the sources for this portion of the local match. Foundation grants are usually for small amounts of money, and are often only available to an agency one time, or for a limited period of time. This uncertain funding needs to be stabilized, and it is recommended that the local governments increase their contributions to this local match by at least this amount. **It needs to be noted that this service must go out to bid this year and it is doubtful whether any transportation provider other than MesAbility would be willing to bid for this service, when such a high level (\$77,255 in 1996) of soft money fundraising is required annually.**
- The second point is that the \$67,850 grant from the U.S. Department of Education is not available starting in the 1997 Federal fiscal year budget. This is a loss of 12.65 percent of their funding. In 1997 this loss of funding means a significant decline in service from the 1996 levels. Since 1996 service levels were lower than 1995 service levels, a gradual decline in overall service already is evident.

Exhibit V-2 shows the history of MesAbility funding levels from 1992 through 1997. The 1997 Operating Budget shows a decline from \$536,252 in 1996 to \$496,811, largely due to the ending of the U.S. Department of Education grant. In Exhibit V-2, the U.S. Department of Education grant is the top level of the graph. It allowed the program to reach a revenue peak in 1995. It is a credit to the MesAbility staff that other sources of revenue have been growing through this



Exhibit V-2
MesAbility Revenue Sources



period to make up for some of the revenue loss, but the overall decline in funding is already causing a reduction in service levels.

In order to maintain service levels, a stable source of funding will be necessary and steps will need to be taken to reverse the current trend of declining service delivery. As noted above, approximately \$145,105 in new revenue would need to be provided in order to maintain 1996 service levels.

Further analysis of the above revenue sources provides some measure of good news at this point. According to the current FTA Section 5307 rules, the revenue that comes from the United Way (\$2,063) and from St. Mary's Hospital (\$39,565) might be allowable as local match. This would mean an additional \$41,628 of the FTA operational funds could be drawn down. Along these same lines, it also should be possible for the funds being used by DeBeque and Collbran to help fund transportation services for seniors to be used as a local match. All revenue except actual fares collected from passengers, and specifically forbidden funds from some other federal agencies (such as Area Agency on Aging funds), can be counted as local match. This potential source for additional FTA funding should be explored further.

In the currently proposed 1998 Federal budget, one of the impacts of the recent "welfare to work" reform package was to suggest that federal funding for Medicaid Medical Transportation (Title XIX), as well as other transportation funding sources, should be allowable as a match for FTA formula funding. While these elements have not yet been enacted, they should be watched closely as a potential future source for expansion of funding.

Although it will require an increased level of local government funding in order to maintain the current level of service, this option has the advantage of being relatively inexpensive when compared to other options. The Americans with Disabilities Act (ADA) requires that complementary paratransit service be provided to those who are unable to ride general public transit, so maintenance of some level of paratransit service will be necessary. The disadvantages to this option are:

- It does not address the substantial existing unmet transportation needs of the elderly and persons with disabilities in the Grand Valley.



- It does not address the transit needs of the general public.
- As transit needs continue to grow, an increasing number of requests for service would have to be denied.
- Even maintaining current service levels will incur increased costs over time, due to inflation and increased costs for maintaining older equipment.
- Over \$1.0 million in currently available Federal Transit Administration carryover funds would be lost to the community, as well as the substantial direct, indirect, and induced economic benefits that would have derived from that transit investment.

Option Two: Expansion of Current Paratransit Services

Given the current paratransit service outlined above, where 78,000 trips are being provided at an annual operating cost of \$536,000, expansion could theoretically be achieved in any of the following four ways:

- Expanding directly provided demand-responsive paratransit service,
- Expanding the user-side subsidy program,
- Expanding purchased transit services, or
- From seeking out other capital equipment contracts

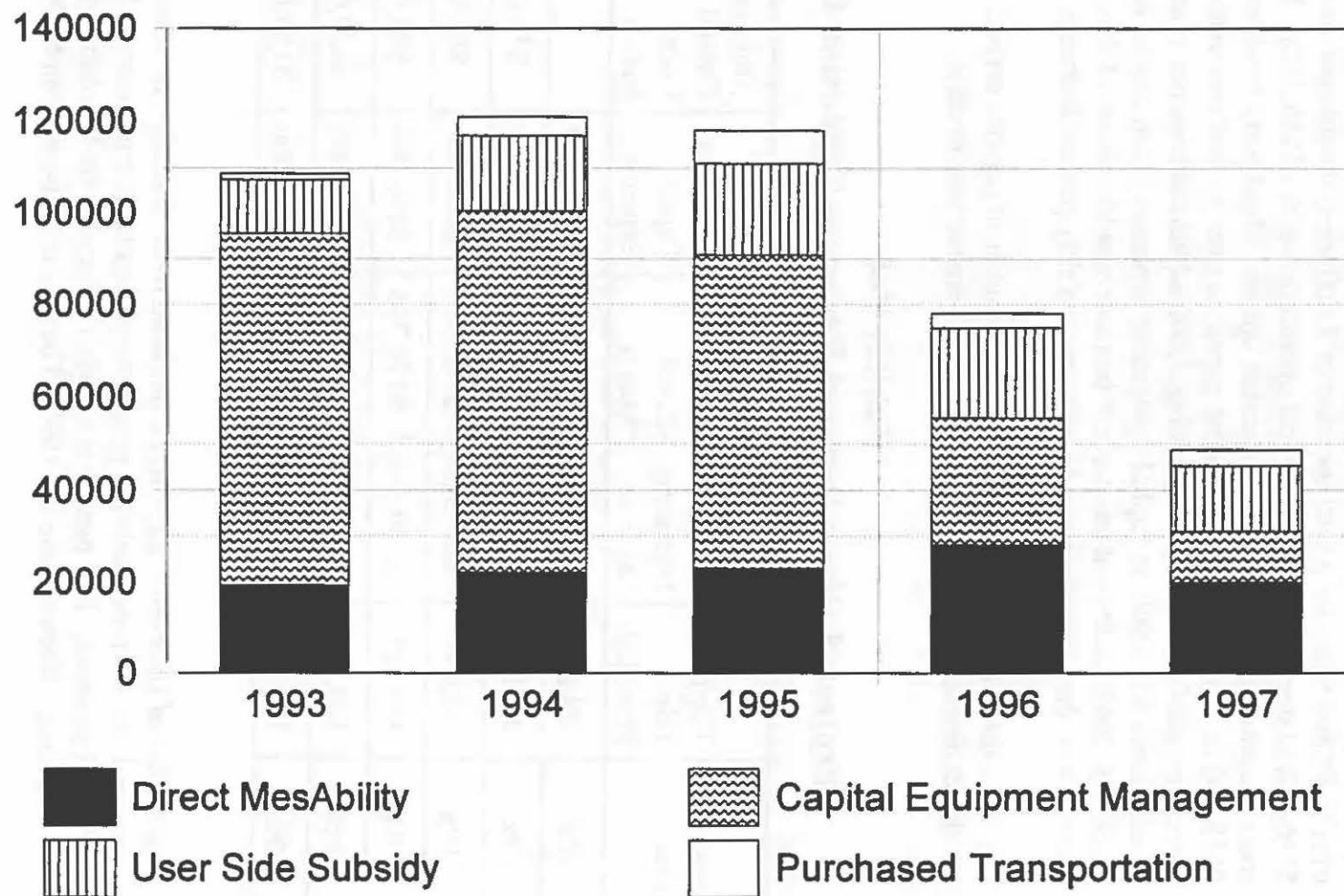
As previously noted, using 1996 as the base year means that the area already is dealing with a lower level of service than in previous years. Using trends in the first half of fiscal 1997 to project ridership numbers, Exhibit V-3 shows the history of MesAbility ridership from 1993 by type of service. The reasons for this decline in ridership will be described below.

Direct Demand Response Expansion: As seen above, the directly provided demand-responsive service is currently providing 28,000 trips annually, at a cost



Exhibit V-3

MesAbility Trips 1993-1997



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of \$14.94 per trip. At this rate, a ten percent expansion of service (from 78,000 trips to 85,800 trips, for a total increase of 7,800 trips) would cost an additional \$116,532 in operating expenses (local operating match of \$58,262). The operating costs escalate rapidly with this expansion option. MesAbility has been averaging \$118,000 in annual capital equipment expenses over the last five years. A ten percent expansion of service, providing 7,800 additional trips per year, would cost an additional \$150,000 on capital equipment expenses (local capital match of \$30,000). Each additional ten percent increase would cost about the same amount. Exhibit V-4 shows the increase in costs up to a fifty percent increase.

It is clear that, if the goal is to increase the number of persons served, expansion of the direct demand-responsive option is an expensive way to do it.

Exhibit V-4 **Projected Direct Demand Response Expansion Costs**

Expansion Trips	Total Trips Provided	Additional Operating Expense	Additional Operating Local Match	Additional Capital Expense	Additional Capital Local Match	Total Additional Local Match
0%	78,000	\$0	\$0	\$0	\$0	\$0
10%	85,800	\$116,532	\$58,266	\$150,000	\$30,000	\$88,266
20%	93,600	\$233,064	\$116,532	\$300,000	\$60,000	\$176,532
30%	101,400	\$349,596	\$174,798	\$450,000	\$90,000	\$264,798
40%	109,200	\$466,128	\$233,064	\$600,000	\$120,000	\$353,064
50%	117,000	\$582,660	\$291,330	\$750,000	\$150,000	\$441,330

Expansion of User-Side Subsidy: Compared to the directly provided service just discussed, the user-side-subsidy program appears to be a more cost effective way to expand services. This picture is clouded somewhat by Sunshine Taxi's recent fare increase, effective June 23, 1997. The fare increase is from \$2.50 to \$3.40 for

the first mile, and the flag drop for service outside of the base zone is increased from \$2.00 to \$4.00. In 1996 this program provided 19,363 trips for \$91,004. With the fare increase, this same \$91,004 would buy approximately 14,238 trips. In order to expand from 1996 levels this decrease would first have to be made up. Assuming that the private taxi cab companies had enough vehicles and drivers to absorb the expansion, a ten percent expansion of transit services through expansion of the user-side-subsidy program would cost an additional \$49,842 (additional local match of \$24,921). At that rate a fifty percent increase in service would cost an additional \$249,210 (local match \$124,605).

While some expansion of this program should be considered, there are other limits to its effectiveness. The current user-side subsidy program is **less expensive to the transit service** than directly provided demand-responsive services, but it is **more expensive to the passenger**. This means that low income persons and elderly persons on fixed income are less able to utilize the service. It also has limited service available for persons with mobility limitations, since Sunshine Taxi has only one accessible van.

Expansion of Purchased Transportation: These services need to be explored within the wider context of a regional coordinated transportation plan. The agencies that are currently able to provide some purchased trip space have a limited space availability, and they must give priority of service to their own customers. As space availability goes down, the cost will go up. Capital investment in a state-of-the-art computerized scheduling and dispatching system, plus the operating funds to properly staff it would do more to encourage this kind of expansion than simply trying to buy more seats on the vehicles of other agencies.

Capital Equipment Management Contracts: The capital equipment management contracts have the drawback of taking those vehicles out of service for the general public, as those agencies largely serve only their own clients and customers. Furthermore, the number of agencies willing to operate FTA vehicles has declined because of the extra expenses that come from meeting all of the Federal standards and requirements. As noted, only one agency still remains with a MesAbility contract in 1997, and it may cancel once the usable life of the provided vehicles is used up.



Option Three: Ridesharing/Vanpooling Service

Ridesharing is a broad term that includes carpools, vanpools, buspools, and organizational structures to support those activities. Carpools and vanpools represent important alternatives to the growing problem of single-person automobile usage. Although they are not a total solution to the mobility needs of people in Mesa County, they do represent part of a total transportation package.

- **Carpools:** Carpools refer to rides shared in private automobiles by two or more people on a continuing basis. Carpool programs can be encouraged through ride-matching and placement assistance.
- **Vanpools:** Vanpools carry groups of seven to 15 people traveling together in a passenger van on a routine basis to the same destination, usually their workplace. Normally, one member of the group serves as the driver and assumes the responsibility for the organizational and maintenance details of the operation. Riders typically pay a weekly or monthly fee to cover expenses to the driver, who usually rides free and has off-hours use of the vehicle. Drivers are screened for driving and credit record.

In terms of carrying capacity, flexibility, economics, and convenience to the user, vanpools fall roughly midway between transit and carpools. Since ride-matching and placement assistance can be utilized for both carpools and vanpools at little additional cost, and both programs can be marketed together, the remainder of this program description will focus primarily on the more involved vanpool program.

Types of Vanpool Programs

Because of the responsibilities and uncertainties that need to be taken on by the vanpool driver, a number of alternative arrangements exist to encourage vanpools to form and remain viable. Some of these arrangements were developed to bring in the support of external groups which assist the vanpool in startup and/or operation.

Three basic methods of vanpool organization are listed here:



- **Owner-Operator Vans** This is the simplest and oldest arrangement, where the van is owned or leased directly by an individual. In this situation, the owner has complete responsibility for organizing the vanpool and assumption of all financial arrangements and risks. Vanpools formed under this type of arrangement have provided the basis for the more formal and institutionalized programs described below.
- **Employer-Sponsored Vanpools** In this arrangement, employers purchase or lease vans for use by their employees. Riders are then charged a fare which represents their share of the operating and capital cost of the vehicle. In many cases, the driver is either not charged a fee or allowed personal use of the vehicle. This arrangement allows employers a mechanism to subsidize or support the vanpool in direct or indirect ways.
- **Third-Party Vanpools** In this arrangement, a third party organization such as a nonprofit corporation, private vendor or transit agency acquires the vans and makes them available to employers or individual users. The vans are leased to the users at rates which are based on the costs of the vehicle, maintenance, fuel, and insurance. The third-party administration costs may or may not be rolled into the fares. Rather than directly leasing vans, public agencies could restrict their third-party role to forming vanpools only, referring their riders to private leasing companies for the equipment.

A variation of the "Employer-Sponsored Vanpool" is currently being piloted as part of a "welfare-to-work" strategy in various locations around the country. One variation is that the Welfare agency plays the role of the "employer," and provides the vehicle for welfare recipients. One welfare recipient becomes the "driver" and gets to keep the vehicle full time, as long as they take other participants in the program to and from work each day. All riders are charged a monthly fee to help defray the vehicle lease costs. A second variation is set up more like a taxi cab lease program. These types of programs require the willingness of the staff from the Health and Human Services Agency to take the lead.



A sample of the kinds of fees charged per month by one vanpool leasing company appears below. The cost per participant would be the dollar amount divided by the number of passengers.

VPSI Monthly Vanpool Fare Structure

Daily Round Trip Miles	1-40	41-60	61-90	91-120	121-160	161-200
Luxury 12/14 Passenger Van	\$1,055	\$1,085	\$1,125	\$1,190	\$1,270	\$1,380
Split Bench 15 Passenger Van	\$983	\$1,013	\$1,061	\$1,170	\$1,238	\$1,313
Commuter 9 Passenger Van	\$785	\$815	\$850	\$890	\$935	\$990
Luxury 8 Passenger Van	\$825	\$855	\$890	\$930	\$975	\$1,030
Dodge Caravan 7 Passenger Minivan	\$865	\$895	\$935	\$1,000	\$1,100	\$1,210

Fees do not include gasoline, parking, or cleaning expenses. Source: VPSI Commuter Vanpools, Houston, Texas April 1995

The long distance commute is traditionally considered the target market for ridesharing. The average round trip mileage for most vanpool fleets ranges from 65 to 95 miles per day (or 32 to 48 miles one-way). According to 1990 U.S. Census data there were 1,322 commuters that lived in Mesa County, but worked outside the county. Travel time to work information from the same census data showed that 2,224 persons traveled for more than forty minutes each way to get to work. A conservative estimate of vanpool ridership, based on national norms, predicts that 1.0% of all commuters who drive 40 or more minutes each way will choose to utilize a vanpool service if one is made available to them. This number goes up if you have strong involvement by large employers or large numbers of employees who drive over 40 minutes per day. Based upon the census information, we can estimate only 22 to 30 vanpoolers from Mesa County. If we assume an average of ten to twelve vanpoolers per van, we can estimate a potential demand for no more than two vanpools.

Efforts to create a computerized ridesharing "bank" with a single telephone number for people wanting rides, or wanting to share rides, organized with a marketing campaign, could centralize and revitalize carpooling efforts in the Grand Valley. These efforts could be fairly low cost if existing staff and office space were used in the effort. In the 1990 Census nearly 4,500 persons reported



that they were carpooling in Mesa County, but these numbers declined significantly by 1994. If 4,500 people were currently driving to work with one other passenger in their car, that would result in a reduction of 562,500 single occupancy vehicle trips annually.

Option Four: Jitney Service

Citizens at our May 29, 1997 public meeting suggested that we look into a Jitney Service. A jitney service is typically a service provided by a private-for-profit vendor, where a van or sedan is operated along an established route, picking up and dropping off passengers along the route for a set fare. Jitney operators would be similar to taxi cab operators in terms of vehicle ownership and licensing, but instead of picking up passengers at one location and dropping them off wherever they want to go, a jitney does not carry passengers outside of an established service corridor.

Only a few cities in the United States have successful Jitney services. Atlantic City, New Jersey, Miami, Florida, and San Diego, California, are some of the successful operations. Factors for success in these cities include:

- Large numbers of tourists staying at local hotels without automobiles, but wanting to travel up and down a corridor of tourist attractions (Atlantic City, Miami).
- A large naval base with ship-based sailors going on leave, and wanting to visit establishments catering to them near the base (San Diego).

Grand Junction and Mesa County do not seem to have the numbers of auto-less visitors that would be required to attract private entrepreneurs to make a jitney service work. If taxi cab regulations were revised to encourage taxis to pick up fares along corridors where there might be some demand, some such private entrepreneur might arise. Public funding would be limited, but amenities such as sheltered Jitney stops along the transit corridor would require some capital investment.



The Transportation Action Coalition of the Civic Forum has discussed a "JUCO Jitney" that would travel from the hotels along Horizon to the JUCO World Series games, and back. This kind of service could be a successful one for the period of the games, and it would be worth pursuing private sources of funding for such a service prior to next year's games.

Option Five: Limited Fixed Route Service

A full fixed route service serving all of Grand Valley can be justified from our need estimations, but the cost probably would be prohibitive. A full fixed route system would entail the purchase and operation of ten to fifteen small buses. A coordinated ADA complementary paratransit service would still need to be operated, although it could be provided at less than the current cost if enough paratransit riders switched to fixed route.

An incremental approach that builds toward a general public transit system is feasible. Starting with one of the limited fixed route service options, it could be expanded as finances permit.

The cost of fixed route services can be estimated by "Vehicle Revenue Mile," or "Vehicle Revenue Hour" projections, but the following per vehicle method is based upon McDonald Transit's current experience in managing fifteen small transit systems in ten different states. The chart in Exhibit V-5 shows operating budgets for fixed route systems ranging in size from two buses in service at peak operating hours to ten buses operating at peak operating hours. Exhibit V-5A shows the capital equipment costs required to start a system at each of the levels of fixed route service.

The operating costs below are calculated with the assumption that each peak hour vehicle will be operated 14 hours each day, five days each week. Personnel costs are the largest expense in any transit system. Here they are based on industry averages. They could be lower in the Grand Junction / Mesa County region, depending upon the prevailing local wages and union status of the transit system that is eventually developed.



Exhibit V-5 Fixed Route Operating Budgets - Personnel

Peak Bus Requirement	2	4	6	8	10
Wages					
Administrative Wages	\$63,120	\$63,120	\$69,432	\$69,432	\$69,432
Operator Wages	\$68,666	\$118,352	\$168,038	\$217,724	\$267,410
Maintenance Wages	\$20,904	\$41,808	\$41,808	\$62,712	\$62,712
Other Wages	\$23,400	\$23,400	\$49,400	\$49,400	\$49,400
Total Wages	\$176,090	\$246,680	\$328,678	\$399,268	\$448,954
Fringe Benefits					
Payroll Taxes	\$22,011	\$30,835	\$41,085	\$49,909	\$56,119
Workers Compensation	\$29,055	\$40,702	\$54,232	\$65,879	\$74,077
Health Insurance	\$9,240	\$13,200	\$15,840	\$22,440	\$25,080
Uniforms	\$1,000	\$1,500	\$2,000	\$2,375	\$2,750
Total Fringe Benefits	\$61,306	\$86,237	\$113,157	\$140,603	\$158,027
Total Personnel	\$237,396	\$332,917	\$441,835	\$539,871	\$606,981

Peak Bus Requirement	2	4	6	8	10
Services					
Professional Services	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Marketing	\$4,000	\$4,000	\$4,000	\$6,000	\$6,000
Outside Business Representative	\$2,000	\$2,000	\$2,000	\$4,000	\$4,000
Other Services	\$500	\$500	\$500	\$500	\$500
Total Services	\$8,500	\$8,500	\$8,500	\$12,500	\$12,500



Materials and Supplies					
Fuel and Lubrication	\$16,379	\$31,659	\$46,940	\$62,221	\$77,501
Tires and Tubes	\$1,000	\$2,000	\$3,000	\$4,000	\$5,000
Maintenance Parts	\$12,828	\$25,584	\$38,340	\$51,096	\$63,852
Other Maintenance and Supplies	\$500	\$500	\$500	\$500	\$500
Total Materials and Supplies	\$30,707	\$59,743	\$88,780	\$117,817	\$146,853
Utilities					
Electricity and Gas	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Telephone and Internet Access	\$1,800	\$1,800	\$1,800	\$1,800	\$1,800
Total Utilities	\$4,800	\$4,800	\$4,800	\$4,800	\$4,800
Insurance					
Professional Liability & PO Ins.	\$12,000	\$20,000	\$32,000	\$40,000	\$48,000
Other Insurance	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
Total Insurance	\$13,000	\$21,000	\$33,000	\$41,000	\$49,000
Other Expenses					
Travel and Meetings	\$500	\$500	\$500	\$500	\$500
Dues and Periodicals	\$200	\$200	\$200	\$200	\$200
Other Expenses	\$1,200	\$1,200	\$1,200	\$1,200	\$1,200
Total Other Expenses	\$1,900	\$1,900	\$1,900	\$1,900	\$1,900
	2	4	6	8	10
Total Non-Personnel Operating Expenses	\$40,200	\$56,200	\$80,200	\$100,200	\$116,200
Total Personnel	\$237,396	\$332,917	\$441,835	\$539,871	\$606,981
Total Operating Expenses	\$277,596	\$389,117	\$522,035	\$640,071	\$723,181

Exhibit V- 5A - Fixed Route Capital Equipment Expenses

System Size	Peak Buses	2	4	6	8	10
	Total Buses	3	5	8	10	13
Vehicle Purchase		\$150,000	\$250,000	\$400,000	\$500,000	\$650,000
Fareboxes		\$3,000	\$5,000	\$8,000	\$10,000	\$13,000
Radios and Base Station		\$17,600	\$20,400	\$24,600	\$27,400	\$31,200
Services Vehicles						
Supervisor Van		\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
Pickup Truck		\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
Administrative Equipment						
Coin Counter		\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Computer System		\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Copier		\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
Typewriter		\$500	\$500	\$500	\$500	\$500
Furniture		\$2,000	\$2,000	\$2,000	\$2,000	\$2,000
Other Capital Expenses						
Building Improvements.		\$24,000	\$24,000	\$24,000	\$24,000	\$24,000
Bus Stop Signs		\$5,400	\$16,200	\$16,200	\$16,200	\$16,200
Benches		\$20,000	\$40,000	\$40,000	\$40,000	\$40,000
Shelters		\$14,000	\$27,000	\$27,000	\$27,000	\$27,000
Shop Equipment		\$30,000	\$30,000	\$30,000	\$30,000	\$30,000
Spare Parts Inventory		\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
Total Capital Expenses		\$321,000	\$469,600	\$626,800	\$731,600	\$888,400
FTA (80%)		\$256,800	\$375,680	\$501,440	\$585,280	\$710,720
Local Match (20%)		\$64,200	\$93,920	\$125,360	\$146,320	\$177,680



Following is a discussion of several limited fixed route options that could be utilized to move incrementally toward a general public fixed route service.

Option Six: Route Deviation Service

A "Route Deviation" service is a variation on the traditional "Fixed Route" service. In a traditional Fixed Route service the transit vehicle follows a fixed route and makes scheduled stops. In a Route Deviation service the vehicle will deviate from the route on request (within a defined area or up to a maximum distance) when necessary in order to serve passengers who qualify for accommodation under the Americans with Disabilities Act (ADA). The vehicle will leave the scheduled route to pick up or drop off an ADA qualified passenger at their trip origin or destination, and then typically will return to the scheduled route within one block of the point from which they deviated.

In practice, route deviation can impact on-time performance and can be confusing to riders. "Pure" route deviation has limited applicability. "Limited" route deviation is more common and workable. Limited route deviation can be time specific, site specific, rider specific, or some combination:

- Time specific route deviation is where the vehicle deviates upon request during "off-peak" hours.
- Site specific route deviation is where the vehicle deviates from the fixed route upon request in order to serve a particular site, such as a medical clinic or a human service agency office.
- Rider specific route deviation is where the vehicle deviates from the fixed route upon request in order to pick up certain ADA eligible riders

The theoretical advantage of route deviation is that you are not required to have a separate ADA complementary paratransit service if you have a route deviation fixed route system. So you escape the costs of paratransit, while still serving a larger number of general public passengers on a fixed route system.

The disadvantage of route deviation is that it requires immediately going to a full system of bus routes that serve the entire service area. It is more feasible for an area that already has a fixed route system in place.

Option Seven: Point Deviation Service

A "Point Deviation" service is one where a vehicle operates in a defined area, stopping at advertised "checkpoints" on a set schedule. Between the advertised points there would be no fixed route. Riders can meet the vehicle at the pick-up points or request a pick-up/drop-off within the service area. The general public can ride from one checkpoint to other checkpoints along the way, while traditional paratransit riders are also served. The key to success is the location and spacing of the checkpoints. Productivities of 5-10 passenger trips per hour can often be achieved, especially if it is designed from the current demand-response ridership records.

A point deviation option could be an incremental step, expanding from the current demand-response system. If designed and marketed carefully, it would allow for the general public to have a predictable ride from one checkpoint to another, while still serving the special needs of the elderly and persons with disabilities. Small (fifteen or twenty-two passenger) wheelchair accessible transit vehicles would be used, since the vehicles would be traveling through residential neighborhoods. Point deviation routes could be introduced one at a time, thus allowing for a careful control over the costs of expansion towards general public transit service. The point deviation option also could be combined with the "Service Routes" option and/or the "Trunk Line with Feeder Routes" option discussed below.

The initial operating costs of such a service can be projected using the Fixed Route Operating Costs Table. The initial operating costs of one route would be approximately one half the cost of a two bus fixed route system (\$277,596 divided by 2 = \$138,798). Capital equipment costs for purchase and outfitting of one twenty-two passenger, wheelchair accessible vehicle would run close to \$100,000. Local match requirements for one route would be:



Capital Equipment = \$100,000 * 20 percent match = \$20,000

Vehicle Operations = \$138,798 * 50 percent match = \$69,399

Total startup local match = \$89,399

Annual operating local match = \$69,399

A decision for this option would need to allow for flexibility and adaptation during the start-up phase. It is hard to predict what the general public ridership levels would be. At five passengers per hour, one route would provide 15,000 trips annually. At an annual operating cost of \$69,399, this would be \$4.62 per trip, which is cheaper than the user-side subsidy program. Since this option would serve some of the same persons currently being served by the user-side-subsidy taxi cab service, the full cost effectiveness of this option would depend upon the number of demand-response paratransit trips saved by the point deviation route.

Option Eight: Service Routes/Community Bus

A service route is a fixed route designed to serve the needs of a particular group of riders, typically persons with disabilities, the elderly, college students, or a particular neighborhood. The route passes through neighborhoods with a high concentration of residences where this particular group of riders live, and travels to destinations where they want to go. The essential elements of a service route are:

- The route should be designed to minimize walking distance to stops.
- The routes are designed to be open to the general public.
- The low speed neighborhood travel by way of circuitous routes makes for longer riding time on the vehicle, but more convenience for the passenger.
- Eight miles per hour maximum (i.e., one hour headway for an eight-mile loop).



- Use of small, accessible vehicles.
- Should be designed carefully, using paratransit trip data and community input.
- Must focus on both the destinations and origins

Service routes can serve 20-50 percent of paratransit trips in an area if properly designed. The cost-effectiveness will depend on the savings to direct demand-responsive paratransit service.

Service routes can be fixed route, route deviation, or point deviation in nature. Like the point deviation system, they could be incrementally introduced as an expansion of the current demand-responsive system.

Option Nine: Trunk Line with Feeder Service

For a trunk line with feeder service, a fixed route trunk line is established and then paratransit vehicles take riders to or from the closest appropriate trunk line stop. The paratransit fare is usually waived in order to encourage riders to transfer to the trunk line. Ridership will come from people who are taking longer trips, where the destination is near one end of the trunk line (the highest success comes when the rider is traveling six or more miles each way). It works best when the headways are short (i.e., a vehicle comes to each stop frequently) and when transfers are made at locations with amenities. The disadvantage is that ridership can be difficult to generate unless the trunk line goes where people want to go, and passes by where people live. Longer headways, additional transfers, and/or waiting time at stops can greatly impact demand and mobility.

Logical trunks would be along Patterson/F Road from Mesa Mall to 33 Road, and/or along North Avenue.

A North Avenue line that started at Mesa Mall, ran to the corner of North and 1st, then south on 1st to Grand, then east on Grand to 5th, north on 5th to North, east on North to 12th, south on 12th to Grand, east on Grand to 28th, north on 28th to

North, and then East, would have the advantage of serving Mesa State College and much of the downtown area. The feeder service can be provided by current paratransit services, or be served by newly developed service routes. Park and Ride lots could be established along the trunk line.

A trunk line would require at least the level of expenditures required for a two bus fixed route system. The operating costs of one route would be approximately \$277,596 (local match = \$138,798). Capital equipment costs for purchase and outfitting of two twenty-two passenger, wheelchair accessible vehicles would run close to \$200,000. Local match requirements for one route would be:

Capital Equipment = \$200,000 * 20 percent match = \$40,000

Vehicle Operations = \$277,596 * 50 percent match = \$138,798

Total startup local match = \$178,798

Annual operating local match = \$138,798

Maintaining the current level of service for the demand-responsive system would be necessary.

A serious disadvantage of this system is that ridership would be difficult to generate unless a significant number of Feeder Routes are operated. As an incremental step toward a larger fixed route system, combined with some of the other options mentioned above, such as a point deviation or service route system, this could be an affordable approach.

VI Transportation Coordination Planning

Introduction

This report describes levels and types of transportation coordination and then presents a Transportation Coordination Planning process for Mesa County. Transportation coordination can be defined as a cooperative arrangement between transportation providers, and/or between 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. Since the passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) transportation coordination has been a major goal of the Federal Transit Administration (FTA) in all of its programs.

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. Typically, as is the case in Mesa County, there are multiple service providers who 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 a.m. by a vehicle operated by a retirement community and is transported to a local senior center. Passenger "B" who lives three doors away is picked up at 9:00 a.m. 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 by MesAbility 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." People have been transported, and the attitude of human service agencies, and health care providers, and other agencies, generally has been 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.),
- Competition for funding is increasing at the federal, state, and local levels,
- Available resources are decreasing (e.g., the volunteer pool is drying up, neighbor and family help often is not available),
- Demand is increasing; e.g., increased numbers of elderly and/or persons with disabilities, the move towards home-care, mobility needs of elderly and persons with disabilities for therapeutic purposes, etc.

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

Transportation coordination can improve people's ability to get to health care, jobs, and needed services by improving the effectiveness and efficiency of a community's transportation system. The benefits of a coordinated system are numerous, but the bottom line is more transportation service can be provided to a greater client base, within a larger geographic area, more cost-effectively in a coordinated than in a non-coordinated system.¹

There are numerous transportation activities and functions that can be coordinated. The concept of coordinated transportation resembles a continuum that can include such activities as:

- Information sharing
- Data gathering
- Eligibility certification and Agency referral
- Training
- Vehicle Maintenance
- Central Dispatching
- Drug and Alcohol Testing

¹Some of this information was taken from the U.S. Department of Transportation's "Guidebook for Planning Small Urban and Rural Transportation Provision," a Technology sharing reprint, DOT-T-91-07, June 1990.

Coordination can occur in stages or a combination of stages. On the most basic level human service agencies can cooperate with a public transit provider on discrete functions, such as the exchange of data, that can break down communication barriers and establish trust. Ultimately, there are advantages to all parties in moving toward increased coordination and to considering the many models available for transportation coordination.

There are three basic levels at which coordination can occur:

- Level I . . . Cooperation
- Level II . . . Joint Use Arrangements, and
- Level III . . . Consolidation

A coordination planning process typically starts at "Level I" and progresses to "Level II." Further progression to "Level III" is less often achieved, but also needs to be planned. Most agencies are willing to at least meet to discuss methods for cooperation, but not every agency will be comfortable moving beyond that level unless trust is developed. In order to work on establishing trust it is important to get as many agencies involved at "Level I" as possible. To aid in our discussion let us elaborate on each of the three levels.²

Level I - Cooperation

The word "cooperation" means two or more people (or groups) working together toward a common end. When two or more agencies, organizations, private nonprofits, or private-for-profit companies agree to work together for improved transportation services they have started the Level I coordination process. These arrangements or practices can be informal, such as a verbal agreement, or more formal, requiring action by governing boards and the signing of contracts.

An example of informal cooperation is when two or more agency administrators agree to exchange information. That information may include the transportation services that the agencies provide, eligibility requirements for receiving those

²The following is taken from: Ohio Department of Transportation, "A Handbook for Coordinating Transportation Services," October 1991.

services, and information on how to apply for help. Each cooperating agency refers inquiries from the public to whichever agency may be in the best position to provide the needed help. A perfect example of this exists with MesAbility, where the transportation director of Mesa Developmental Services serves on the advisory board.

Another example of informal cooperation would be when an agency, such as a Goodwill program, tells its clients about other transportation services that they may be able to use. Don't forget that the other transportation services may be operated by a public entity, a private nonprofit agency, or by a private for-profit company.

A more formal example of cooperation would be when two or more agencies agree to submit a joint application for a Section 5310 (Elderly and Persons with Disabilities) grant, to purchase a vehicle. In this case each participating agency would need to take formal action to approve participation in the application.

A second example of a more formal cooperation program can occur when an agency enters into a purchase of service arrangement with a local private company directly and pays the operator for their client's travel. MesAbility currently has a number of these purchase of service arrangements.

Level II - Joint Use Arrangements

A joint use arrangement occurs when one or more of the resources of the involved participants are available for use by other participants. The resources could be vehicles, staff time, staff knowledge, or facilities. In a joint use arrangement all participants can be contributors. In this case each participant offers something that the other participants need and want. It is also possible that only one participant might be the contributor. In this situation the other participants become the users.

Arrangements for joint use can be informal or formal. An example of an informal joint use arrangement would be where one agency or company agrees to provide driver training for other agency or company drivers. In exchange, the participant would agree to help pay for the training costs (trainer's time, course materials, and training facilities).



A second example of an informal joint use arrangement would be when one entity takes the lead in putting together an informational brochure that explains all of the transportation services provided in the area. Other participants, either public or private, then help in paying the costs for brochure development, production and distribution.

An example of a formal joint use arrangement would be where one participant agrees to pay a certain rate per vehicle mile for using another participant's vehicle on certain days of the week. This use can be for certain times of the day or for special trips when additional seats are required.

Other examples of formal joint use arrangements are when one participant provides office space for another participant or when a certain room in a building is used by two different participants at different times of the day. In many regions formal joint use arrangements involve the establishment of drug and alcohol testing "pools," where a number of agencies contract with a single testing firm.

MesAbility has had formal joint use arrangements for a number of years with its vehicle management contracts. MesAbility provides an FTA vehicle and manages it, while the other agency provides for the driver and operating costs. As with cooperation, joint use arrangements can apply in many activities.

Level III - Consolidation

Consolidation is the most comprehensive level of coordination. It is defined as the joining or merging of transportation resources for the benefit of all participants. In a consolidated transportation system the services of two or more providers are combined into a single system. Consolidation arrangements require formal relationships. Consolidation also requires one of the participants or a newly created entity to take on the role of coordinator. It is also possible for a private for-profit company to perform the coordinator role (however, private for-profit companies have a limited ability to receive Federal funding).

Even though examples of variations and numerous combinations are in existence, there are primarily two types of consolidation systems: Single Provider systems and Brokerage systems. Each is briefly explained below.



Single Provider.

In this type of consolidated system, one existing or newly formed agency, organization or company assumes the responsibility for all aspects of transit administration, management, and service operation. Included are a range of responsibilities, from the preparation of grant applications to hiring drivers and providing on-the-street operations. The service provider undertakes all activities necessary to provide transportation.

With a lead agency model, one agency takes on the responsibility for providing transportation for several other agencies. There are two variations to this approach: the lead agency as an existing provider of other services and the lead agency as solely responsible for transportation services. In Mesa County, MesAbility Transit is an example of the latter. In other regions, a human service agency with other services, such as the American Red Cross, becomes the lead agency.

The lead agency may assume responsibility for the transportation fleets of the other agencies and may also receive funding from those agencies. Funding for the provision of transportation for riders other than human services program clients may come directly as operating grants or subsidies from public funding sources, or it may come indirectly through the purchase of service contracts with the agencies whose clients are being served.

The lead agency generally takes on most of the related transportation responsibilities including:

- Administration
- Grants Management
- Purchase of Service Contracts
- Scheduling
- Dispatching
- Operations
- Maintenance, and
- Purchase of Vehicles and Other Capital Equipment



The success of a lead agency model depends upon the stability of its funding. Historically, when one agency takes on the responsibility of providing transportation for the clients of a number of other agencies, the financial support of those other agencies slowly (or quickly!), disappears. This is known as "client dumping." If the lead agency is able to coordinate directly with health and human service agencies that provide funding for transportation, there is a higher likelihood of continued success. It is important from the very beginning to work at bringing together such agencies as the Area Agency on Aging (Title III), Medicaid Medical Transportation (Title XIX), County Health and Human Services, the Rehabilitation Commission, and Developmental Disabilities Boards, to provide input (and hopefully funding), as the coordination plan is constructed.

Brokerage:

In a brokerage system, the responsible entity oversees all of the coordination activities. This responsible entity then becomes the "broker-coordinator." In most cases the broker-coordinator contracts with other entities who actually operate the vehicles on the road. These "other entities" may include public agencies, public and private nonprofit organizations as well as private for-profit companies. Since multiple operators are used, often the service providers in a brokerage include a combination of public and private entities. Sometimes the broker also contracts out work on selected administrative or management duties to public or private entities. The broker enters into agreements with other agencies or private providers to hire drivers and deliver the service. Usually, the broker takes all trip requests and determines which participant or contractor is best suited to provide the service.

There are no rules as to what activities should be performed by the broker and which should be contracted. For example, a broker may prepare the grants, set up the schedules and do all the marketing. Contractors may then hire drivers and operate the service. The contractor may also purchase all materials and supplies necessary for keeping the vehicles in operation. Conversely, the broker may purchase all of the parts and supplies and provide maintenance, but contract to one or more operators for setting up the schedules and operating the service.



Combinations of Single Provider and Brokerage

It is also possible to set up a coordination program that combines portions of the single provider and brokerage concepts. Some coordinated systems, for example, provide nearly all of the service with their own drivers. However, they may contract with one or more other service providers for selected services or routes. In other systems, the broker only provides a small amount of service and contracts with others for most of the services. The possibilities are unlimited.

MesAbility is an example of such a combination agency. While directly providing demand-responsive paratransit service, it also purchases transportation services from Mesa Developmental Services, and manages a user-side-subsidy taxi cab program. From the funding side, MesAbility receives all of the county's Area Agency on Aging transportation funds, but Medicaid Medical Transportation (Title XIX) funds are split between MesAbility, Sunshine Taxi, and Care Cars. To build a stronger transportation brokerage situation, one approach would be to attempt to unify all funding through a single broker-coordinator. The task of that broker-coordinator would be to arrange all transportation in the most cost-effective way possible.

Implementing a Coordinated Transportation System

Experience has shown that four key factors are critical in implementing a successful coordinated transportation system. They are:

1. Strong and capable administrators who understand fiscal and transportation management, and are capable of working with diverse agencies, structures, and policies. **Note: With the current paratransit service contract going out to bid this year, it is imperative that the winning bidder have a strong management team that is committed to coordinated transportation.**
2. A commitment to the integration process by state and local officials and a willingness among those officials to become involved in the negotiation process that accompanies the development of such a transportation system. **Note: It is very important that the Mesa County administrative staff**



actively supports coordination efforts, and that efforts be made to bring Colorado State Health and Human Services staff into the discussions. There is much that can be done with a strong, united, local leadership to help bring others to the coordination planning table.

3. Well thought out plans that attempt to address all potential obstacles in detail and provide an incremental approach to implementation that focuses on the steady movement toward the goal of total service integration. **Note: If a Fixed Route Service Option is approved and implemented, it should be part of an integrated coordination plan. If Fixed Route Service is not approved, the coordination plan should still seek full, County-wide service integration.**
4. A fare or donation structure designed to assess agencies and passengers equitably for services delivered, regardless of the categorical funding stream paying for the service.

Coordination Recommendations

- As of 1997, MesAbility, Sunshine Taxi, and Care Cars all have separate contracts with Medicaid Medical Transportation. In the interests of Transit Coordination all Medicaid Medical Transportation funds would preferably come to a single "broker-coordinator" in Mesa County. That broker would then select the most cost-efficient transportation provider to make each trip.
- Funds from the "Welfare-to-Work" reforms, Area Agency on Aging, and other agencies with transportation funding available would also realize increased efficiencies by passing through a single broker.
- In order to approach this level of coordination, local officials should assist the transit agency in facilitating discussions between the agencies that provide funding for client transportation services. The goal of these discussions, first of all, would be to identify barriers to transportation coordination that are due to the policies and procedures of the agencies themselves.



- There are a number of excellent paratransit scheduling software and computer packages that are currently available. Some of these would facilitate a comprehensive transportation brokerage system, where a single telephone number would permit access to all paratransit providers in the valley. As a capital equipment cost, such a system could be purchased for an 80%-20% match rate. Operation of such a system would have additional administrative costs, but could be integrated with existing scheduling and dispatching arrangements.



Addendum

Vehicle Insurance Coverage Involving Two or More Agencies

Below is a response to the question, "Can Insurance coverage be obtained if two or more agencies share a vehicle?"

- Insurance can be issued to provide coverage for more than one user. It appears that the problem has been that the Independent agents, particularly in rural areas, are reluctant mainly because there could be more risk and therefore a higher premium. In some areas the small insurance business agent may not be aware of how to write the coverage.
- It is to the advantage of the insurance agent to write a separate policy through the same insurance company. The reason for this is that if there is a loss and it involves both operators the insurance company is not going to go after itself.
- When seeking coverage, the agencies should get a large insurance company that represents several underwriters and this will help compete for the better premium. An example of this would be: Insurance is paid by "Agency A" to cover "Agency B", "C", etc., under the "permissive user" clause, where one agency is the primary and the other(s) are secondary users. Then "Agency A" can prorate the cost out to the other users.
- It is recommended that some of the contractors offer an agent who could write this type of policy the opportunity to provide coverage to several agencies. This could be similar to an "insurance pool" that (1) could help obtain a company to write the policy (2) Help get a better rate for those that were part of the group (3) Help those agents not wanting to write this type of policy to consider them next time.
- The contractors could become "self-insured." Most cities/counties that are self-insured have not actual coverage. This means that they have kept their losses down and have enough assets to cover any

potential losses. In all cases, self-insured groups are only covered within their corporate limits, i.e., county, city, etc.

The FTA ultimately leaves the decision of insurance coverage and any related issues to be worked out between the coordinating agencies. If you have a coordinated situation in which two or more agencies share a vehicle and these types of questions are directed to you, the information given above should prove to be helpful.



VII Regional Transit Options

Purpose

While the Service Option selected by the Transit Development Plan Committee is affordable without an increase of the sales tax or property tax through the five years of the plan, the future funding of an expanded fixed route system for the Grand Valley may require looking at a dedicated source of funding before the next five year plan. The purpose of this brief report is to outline the options available to the Grand Junction/ Mesa County Metropolitan Planning Organization, Mesa County, the City of Grand Junction, the City of Fruita and surrounding communities with regard to a regional approach to public transportation. This paper does not constitute legal advice, but, of necessity, references Colorado statutes.

Objectives of a Regional Approach to Public Transportation

Why approach public transportation from a regional perspective? The reasons include:

- Personal travel extends beyond city boundaries and, thus, transportation systems must accommodate travel across city limits.
- It is inefficient and more costly for each city in an urbanized area to have its own, individual public transportation system, therefore a single, regional system would result in the best use of public funds.
- Regional travel results in the residents of one community traveling in another community, it is only fair that the costs of transportation services be shared among the local governments in a region.
- Funding for transit can become more stable under regional transit options provided by State statutes.



- The current funding system for the county wide MesAbility transportation system has an overdependence upon grants and other “soft” revenue sources, and would be strengthened by a more stable source.

Issues in a Regional Approach to Transit

In deciding which regional approach to transit is best for the Grand Junction / Mesa County region, some important issues must be considered. These include:

- Will a citizen vote be necessary to institute a particular option?
- Will the funding options provide sufficient resources to effect and maintain a regional transit program and will the tax burden be equitably distributed?
- How will the policy-making body balance the interests of the City of Grand Junction, the region's central city and transit hub, against the needs of the surrounding areas, both urban and rural?
- What are the appropriate powers of a regional transit organization with respect to the local governments in the area?

Cities in Colorado can enter into inter-local agreements to provide services without a vote of the citizens of the cities involved. Such contracts need only be approved by the respective elected policy bodies. As will be seen, other options may require a vote on the part of the general public for affected local governments. Elections are costly actions with uncertain outcomes and should not be undertaken lightly.

Some options available to the region provide for tax measures specifically for transit. It is important that these measures provide sufficient funding for an adequate transit program into the foreseeable future. If the tax measure does not yield enough revenue, it will be difficult for public transportation to get sufficient funds from other sources. The burden of the tax should be perceived as being equitable, i.e., in approximate proportion to the distribution of benefits,



particularly service.

Transportation for the elderly and persons with disabilities has long been part of the fabric of the community in Mesa County, with the nonprofit MesAbility providing the County with significant services. Many residents rely on the system to meet their daily travel needs. As noted previously, this system is overdependent upon the entrepreneurial grant writing skills of the MesAbility executive director. Mesa County, as well as the cities of Grand Junction and Fruita have invested funds in this public transportation system, and are likely to want to make sure they maintain some measure of control over the services provided within their respective jurisdictions. They are likely to look for partners in a regional transit program not a takeover nor an abandonment of their historical support for transit.

Mesa County has never contributed enough local match money to pull down all of the available Federal operating allocation for public transportation. While this makes it possible for the area to secure Federal funding for an immediate expansion of transportation services, if such is desired and an increased local match is provided, it is notable that as a national trend Federal funding for transit operations has been decreasing in recent Federal budgets. The long term trend is for decreasing Federal support for public transportation. This puts at risk the levels of funding currently available to the region. A serious appraisal of local dedicated funding options for transit is necessary even if the people of the Grand Valley choose not to expand public transportation beyond the current service for the elderly and persons with disabilities.

Finally, transit districts around the U.S. sometimes have powers greater than the individual local governments, and this can be a source of disharmony in the region. For example, some transit districts have eminent domain powers irrespective of the desires of the individual local governments. The authority of the transit agency with respect to the local governments is always an issue of concern.

Each of these issues, along with others as appropriate, will be examined with respect to the options available.



Description of Options

The following options are available to the local governments in the area:

- Intergovernmental Agreements
- County Transit Sales Tax
- Metropolitan District
- Regional Service Authority
- Rural Transportation Authority

Each of these is described below.

Intergovernmental Agreements

Mesa County, the City of Grand Junction, and the City of Fruita, currently provide a portion of the local match for Mesability. These funds are allocated under informal agreements between the parties. Intergovernmental Agreements would be a more efficient means for local governments to accomplish transportation services on a cooperative basis.

Intergovernmental Agreements have the advantages of avoiding costly elections and keeping the authority and control of the services under the direction of the elected policy bodies of the local governments. Also, the funding of services could come from currently available general funds of the local governments, rather than requiring new taxes. If this funding option is chosen, each entity must agree to provide an ongoing, stable level of funding, in order to keep the program viable without over-reliance upon "soft money" from short term grants.

County Transit Sales Tax

Mesa County is authorized to levy a sales tax, use tax, or both of up to one-half of one percent by § 29-2-103.5 C.R.S., "for the purpose of financing, constructing,



operating, or maintaining a mass transportation system within the county." An election to approve the tax is required.

This option appears to have a number of advantages.

- It provides a revenue source dedicated to transit from a sales tax, rather than from an ad valorem tax.
- Generally, sales tax issues tend to be more popular with voters than property tax issues. This is particularly true when the tax is to support public transportation. The results of the household telephone survey, where 55 percent favored a sales tax, bear this out.
- Nonresidents share in the tax, as well as in the opportunity to use the service, and property not served by the transit system is not directly taxed.
- It provides adequate funding. A 0.5% sales tax in Mesa County would yield over \$1.0 million annually, more than enough to fund a county wide transit system. To produce comparable revenue from property tax would require raising the current county ad valorem rate by approximately seven cents per \$1,000 of valuation.

This option does not require a separate governing board or "additional level" of local government. To operate the service, the county is permitted to enter into an intergovernmental agreement with "any municipality." The County could collect the tax, and contract with the Cities of Grand Junction and Fruita to provide the service through a transit provider. Any issues of transit policy or control would be negotiated into the intergovernmental agreement.

Metropolitan District

The formation of a "Metropolitan District" of any size requires that the district provide at least two services, one of which can be public transportation. Other services may be found in § 32-1004 of the Colorado Revised Statutes (C.R.S.) and range from mosquito control to water and sanitation services. The only limitation is that there can be no overlapping district lines for two special districts



performing the same services. A Metropolitan District can be organized partly or wholly within the boundaries of another special district, but may not offer any of the same services as that district.

As part of the initiation process for the formation of a Metropolitan District, a service plan must either be submitted to the county commissioners of each county with territory in the proposed district or be requested by these same county commissioners. After a public hearing on the service plan, the commissioners vote to either approve, disapprove, or conditionally approve the service plan. If a special district falls entirely within the boundaries of a municipality, the municipal government must also vote on approval of the service plan.

After approval of the service plan, the request to form a special district is presented to the District Court with a petition of either 20% of the voters or 200 voters (whichever is smaller) of the potential special district. The District Court gives all property owners in the proposed district the chance to request that his or her property be excluded from the district. The court must then rule on all requests to be excluded from the district and schedule a vote on the organization of the district. This vote will serve two purposes, (1) to approve the formation of the district, and (2) to elect board members. All board member candidates must be qualified electors from within the special district.

Once formed, the district is financially supported through several sources:

- Any state or federal grants available,
- Rates, fees, and tolls for services,
- Ad Valorem Taxes,
- Negotiable Coupon Revenue Bonds, and
- Negotiable Coupon General Obligation Bonds.

It is the responsibility of the board of directors to pursue all state and federal grant monies available, if any. Rates, fees, and tolls are set by the board of directors with no need for voter approval. There is also no voter approval needed for revenue bonds up to 1.5% of the total property valuation in the district. For the purpose of incurring indebtedness to support the acquisition, construction, installation, or completion of any works, an election can be held to approve the issuance of general obligation bonds.



The attractiveness of this type of district is there is no need for any special legislation. In addition, two or more special districts may be consolidated into a single consolidated district, whether or not they were originally organized for the same purpose and whether or not they are contiguous.

One potential drawback is that more than one service must be provided (e.g., mosquito control and public transportation). In addition, the current legislation allows individual property owners to request to be excluded from the district, the validity of each request to be ruled on by the District Court.

Regional Service Authority

The Service Authority Act of 1972 (as amended) allows the formation of a Regional Service Authority out of at least one full county for providing certain functions, services, and facilities, such as public surface transportation and the regional planning associated with such services. Public transportation districts are granted the same powers as those of the RTD in § 32-7-140 C.R.S.

Initiation of the formation process can be by one of two methods. The first requires a petition by 5 percent of the number of electors in the area which voted for all candidates for the office of governor in the last election. The second method involves a resolution adopted by a majority of the governing bodies of the counties and municipalities having territory within the boundaries of the proposed Regional Service Authority.

Once the Regional Service Authority has been requested, the court then appoints an organizational commission to determine what services are to be administered, if not already spelled out in the petition or resolution. The organizational commission also divides the area into electoral districts and arranges for a special election for voter approval of the district and for election of the board of directors.

Once the Regional Service Authority has been formed and a board of directors elected, funding is available from a number of sources, including:

- Rates, fees, and tolls for services provided;
- Ad Valorem Property Taxes;
- State collected, locally - shared taxes, if any;



- Revenue Bonds;
- General Obligation Bonds; and
- Anticipation Notes & Warrants.

Rates, fees, and tolls are set by the board of directors. Property taxes are allowable up to a mill levy limit without voter approval. (Above the mill levy limit, there must be a special election.) Negotiable coupon revenue bonds can be issued. These are refunded out of revenues and therefore do not constitute indebtedness. General obligation bonds are considered as securing debt and require voter approval. Anticipation notes and warrants are in anticipation of revenues and taxes in the fiscal year issued.

In addition to the traditional funding methods listed above, the Regional Service Authority can establish the following districts:

- Special Taxing Districts, and
- Local Improvement Districts.

A public hearing is required before formation of any special districts. Both special taxing districts and local improvement districts are subject to review if such a process is requested by a registered voter within 45 days of establishment.

Rural Transportation Authority

The newest option, only recently signed into law by the Governor, came into being with the "Rural Transportation Authority Law of 1997." This Act allows the formation of a Rural Transportation Authority by two or more municipalities, two or more counties, or one or more municipalities and one or more counties, for providing public transportation services, facilities, and the regional planning associated with such services. Rural transportation authorities are granted their powers in § 43-4-603 C.R.S.

The creation of a Rural Transportation Authority involves a contract adopted by a majority of the governing bodies of the counties and municipalities having territory within the boundaries of the proposed Rural Transportation Authority, and approval of the contract in a general election. No authority can be established without holding at least two public hearings. The County gives all property owners



in the proposed authority territory the chance to request that his or her property be excluded from the authority. The County must then rule on all requests to be excluded from the authority.

Once the Rural Transportation Authority contract has been requested, the combined governmental units appoint an organizational commission to determine what services are to be administered, if not already spelled out in the petition or resolution. The organizational commission also divides the area into electoral districts, arranges for at least two public hearings, and arranges for a special election for voter approval of the authority and for appointment of the board of directors. The board must include one elected official from each governmental entity included within the authority.

Once the Rural Transportation Authority has been formed and a board of directors elected, funding is available from a number of sources, including:

- Rates, fees, and tolls for services provided;
- State collected, locally - shared taxes, if any;
- Sales or Use taxes, up to 0.4 of one percent;
- Annual motor vehicle registration fee not to exceed \$10 per vehicle;
- Revenue Bonds;
- General Obligation Bonds; and
- Anticipation Notes & Warrants.

Rates, fees, and tolls are set by the board of directors. The power to collect sales taxes up to 4/10ths of one percent, is what sets this authority apart from the property tax based Regional Service Authority. The annual motor vehicle registration fee is also unique to this legislation. Negotiable coupon revenue bonds can be issued. General obligation bonds are considered as securing debt and require voter approval. Anticipation notes and warrants are issued in anticipation of revenues and taxes in the fiscal year issued.

In addition to the traditional funding methods listed above, the Rural Transportation Authority can establish Local Improvement Districts or Value Capture areas.

A public hearing is required before formation of any special districts. Local



improvement districts are subject to review if such a process is requested by a registered voter within 45 days of establishment.

Analysis of Options

The five options identified above are summarized in the attached table. Comments are included in the table with respect to four issues identified earlier: citizen vote required, dedicated tax revenues, decision-making balance and transit district powers.

As can be seen in the table, a vote of the public is required to establish an agency with taxing authority. Colorado law establishes which taxes can be levied under which organizational option.

The attached flowchart that follows the table suggests that the approach toward a regional transit program depends on the local decisions regarding:

- the level of financial support available for general public transportation,
- the need for a dedicated transit tax,
- the preference of a sales tax or ad valorem tax,
- the desire to create another government entity,
- the powers of any new transit agency.

Summary of Regional Transit Options

Option	Description	Citizen Vote Required?	Dedicated Tax Provided	Transit Policy Control	Government Powers
1. Inter-Governmental Agreements	Cities/County contract with each other for service	No	None	Parties to agreement	Retained by contracting parties
2. County Transit Sales Tax 29-2-103.5 C.R.S.	Levy county wide tax for transit Contract service through intergovernmental agreements	Yes	Sales tax up to 0.5%	Parties to agreement	Retained by contracting parties
3. Metropolitan District 32-1 C.R.S.	Special tax district to provide <u>two</u> services. No limit on territory	Yes	Ad Valorem	Elected Board	Levy taxes through the County
4. Regional Service Authority 32-7 C.R.S.	Create regional service authority. Territory must include at least all of one county.	Yes	Ad Valorem Rates Fees Tolls Service Charges	Elected Board	Eminent Domain Levy and collect taxes
5. Rural Transportation Authority 43-4-603 C.R.S.	Create rural transit district. Territory must include at least all of one county.	Yes	Sales Tax up to 0.4% \$10 Vehicle Registration Fee Tolls Service Charges	Elected Board	Eminent Domain Levy and collect taxes

Conclusions and Preliminary Recommendations

There are a number of options available to the Grand Junction / Mesa County region with respect to a regional approach to public transportation. These options



can be organized into stages of independence of transit from the local governments in the region.

The first stage would be to use intergovernmental agreements to provide transportation services and to equitably share the costs. This approach maintains the most degree of control by the individual local governments, and does not necessarily require any new taxes if adequate sources of revenue are available out of general funds.

The second phase would be the establishment of a separate revenue source for public transportation. Sales taxes can be passed by the County for this purpose under the current law. Taxes raised for this purpose must be spent as specified, thereby reducing the degree of local government discretion. Intergovernmental agreements can be used to determine the allocation of service.

The third phase would be the establishment of a "special district" which would have its own ad valorem or sales taxing authority and would have an organization and operation which would be somewhat independent of the local governments. The Metropolitan District and the Regional Service Authority would depend on ad valorem taxes. The Rural Transportation Authority would depend on sales tax revenues.

Thus, the decisions at this point appear to be:

- whether to provide an adequate level of funding for public transportation from currently available general funds;
- whether to establish an independent source of tax revenue (which will require a popular vote);
- what type of tax is preferred (sales tax versus ad valorem tax),
- whether to establish an additional, independent agency with eminent domain and other powers.

VIII Transit Development Plan

(Revised September 24, 1997)

Introduction

This Chapter presents a detailed, five year "Transit Development Plan." This plan includes the three elements of the Transit Development Program (TDP) Committee's preferred option:

1. Returning to 1996 levels of service with the already existing paratransit system, starting with the 1998 budget.
2. The expansion of the user-side-subsidy taxi cab program in 1998.
3. The planned implementation of an incremental approach to limited fixed route service by the year 2000.

We start with a discussion of the financial needs for this five-year plan, including an annual capital and operating budget for each year of the five-year program. We discuss the logical rationale developed for apportioning the local government funding among the different governmental entities involved. Following that we present a detailed plan of operation.

Financial Needs

The TDP Committee reached a unanimous decision on the preferred transit service options. The decision was to recommend an incremental increase in public transit services, that starts in 1998 with a return to 1996 service levels for elderly and disabled and an increase in the user-side-subsidy taxi cab program to serve low income persons. In 1999, capital expenditures will be budgeted to purchase five vehicles for limited fixed route service. These vehicles would be put into operation in the year 2000, with an East-West route connecting Mesa Mall with low income areas in Clifton and a North-South route connecting Orchard Mesa



with the Hospital district. Both routes would be designed to pass through the downtown area with possible transfer sites near Mesa State College and Lincoln Park.

The first question addressed by the TDP Committee was: Who does the community want to serve? The Committee decided that the target population for the preferred option should include:

- Persons with mobility impairments or disabilities that keep them from being able to drive an automobile;
- Elderly persons who can no longer drive, or no longer wish to drive;
- Low income people who cannot afford an automobile (including both unemployed and the working poor).

In order to serve these targeted population groups, while embracing an incremental approach to expanding public transit in Mesa County, the following steps are recommended:

Step One: Maintain the Current Demand Responsive Paratransit Service and Return it to 1996 Service Levels

The elderly and persons with disabilities are the primary population segments served by the current demand response system. Due to a decrease in available "soft" money from limited term grants, combined with a decrease in the number of agencies participating in joint use capital equipment contracts, the number of trips provided by the current system has been declining since 1995.

The preferred option recommended by the TDP Committee would have local governments (currently Mesa County, the City of Fruita, the City of Palisade, and the City of Grand Junction) replace the "Soft" money, currently used as a local match for both operating and capital equipment, with local government general funds. In order to reverse the decline in service documented in Chapter V, and return it to 1996 levels, an additional increase in local match funds would also be required.



The table below details: (1) the increased costs involved in returning the current system to 1996 service levels, and (2) increased costs to local governments in replacing "soft" match money.

Note: Current (1997) local government spending is \$117,800.

Step One: Maintain Current System	Additional Local Government Spending Needed	Total 1998 Local Government Spending Needed	Total Trips
Replace "Soft" Money	\$41,219	\$159,019	
Return to 1996 Service Levels	\$35,481	\$35,481	62,000
Maintain Current Capital	\$45,000	\$45,000	
Totals	\$121,700	\$239,500	62,000

Step Two: Expand Current Services in 1998 with Increased User-Side-Subsidy

The Preferred Option recommended by the TDP Committee includes the decision to expand the current level of service in order to better fill the unmet needs of the elderly and persons with disabilities, while also opening these services to the working poor and persons who need to get off of welfare and into jobs because of the recent welfare reform legislation. The least expensive option was to increase the user-side-subsidy program, so it was selected.

There are a number of ways to alter the user-side-subsidy program in order to make it more available for low income persons. Currently, MesAbility purchases \$20.00 worth of Taxi tickets and sells them to eligible individuals for \$12.00. MesAbility thus provides a subsidy of \$8.00. If the subsidy were increased from \$8.00 to \$12.00, the eligible individual would be able to purchase \$20.00 worth of Taxi tickets for \$8.00, making the program more affordable for low income individuals. Eligibility criteria and controls on the types of trips that would be subsidized can be established through coordination with County Welfare agencies and the taxi cab companies.



In the table below, the cost projections reflect an increase to current taxi ticket program ridership of 19,500 (25%) through the user-side-subsidy program. The **subsidy level** was left at the current rate. It is possible to increase the individual subsidy, which would, of course, decrease the total number of trips provided. The 19,500 trip figure was selected in order to bring service levels closer to the 1996 levels.

Note: Current (1997) local government spending is \$117,800.

Step Two: Maintain Current System	Additional Local Government Spending Needed	Total 1998 Local Government Spending Needed	Total Trips
Replace "Soft" Money	\$41,219	\$159,019	
Return to 1996 Service Levels	\$35,481	\$35,481	62,000
Maintain Current Capital	\$45,000	\$45,000	
Expand User Side Subsidy	\$78,643	\$78,643	19,500
Totals	\$200,343	\$318,143	81,500

Step Three: An Incremental Approach to Add Limited Fixed Route Service

The third step of the Preferred Option recommended by the TDP Committee was to increase service by the incremental addition of a limited fixed route service. The recommended service would have an East-West route connecting Mesa Mall with low income areas in Clifton and a North-South route connecting Orchard Mesa with the Hospital district. Both routes would be designed to pass through the downtown area with possible transfer sites near Mesa State College and Lincoln Park. With proper routing, such a limited fixed route system could provide service every half hour from five a.m. until seven p.m., Monday through Friday, with five wheelchair lift-equipped, 22 passenger transit vehicles.

In the year 2000, when the system went into operation, two or more of the currently operating paratransit vehicles could be shifted from demand-responsive



paratransit duty to operate as feeder vehicles connecting to the fixed route system. One of these vehicles could serve as a feeder connecting the City of Fruita to the fixed route service at Mesa Mall. Another could operate as a feeder in the Clifton area. A third vehicle, if available, could provide a peak hour commuter service to the Airport and Hotels along Horizon Drive, or provide shuttle service to Palisade.

The purchase of five vehicles, along with the associated capital costs of building bus shelters and establishing bus stops, would be undertaken in 1999. The actual operation of the limited fixed route system would not begin until the year 2000. Exhibit VIII-1 details the five year capital equipment budget expenditures in order to carry out this plan. Exhibit VIII-2 details the total operating budget.

Exhibit VIII-3 combines all of the costs of the Preferred Option recommended by the TDP Committee as they would appear over the period from 1997 until 2002, and details the sources of funding required for each year.

It should be noted that the establishment of such a limited fixed route system, combined with efforts to assist current paratransit riders in making a transition to the fixed route system, would likely result in the realization of significant cost savings for the paratransit service. In order to make our cost projections as conservative as possible, however, the figures below do not assume any such cost savings.

Following these budget numbers we provide a financial analysis that details some opportunities for innovative financing. These are followed by the description of a logical rationale for an equitable proportion of local funding responsibilities among the different political entities involved in this plan.

Financial Analysis

- **Opportunities for Innovative Financing**

The Federal Transit Administration has shown an increasing willingness to allow



Exhibit VIII-1
Transit Development Program Committee
Recommended Transit Service Option
Capital Budget Line Items 1998-2002

Transit Development Program

Grand Junction/Mesa County MPO

	1998	1999	2000	2001	2002
Return to 1996 Level of Services and Expand User Side Subsidy					
Capitalized Contract Costs	\$121,798	\$125,452	\$129,215	\$133,092	\$137,085
Three Replacement vans	\$179,716		\$212,290		\$222,905
Radios for vans	\$1,647		\$1,945		\$2,042
Wheelchair lifts	\$10,379		\$12,260		\$12,873
Capital Maintenance	\$8,259	\$8,465	\$9,755	\$29,400	\$10,243
Computer Hardware	\$25,000				
Capital Equipment Costs	\$346,798	\$133,917	\$365,465	\$162,492	\$385,148

Add Limited Fixed Route by 2000

Five 22 passenger vehicles	\$388,655
Fareboxes	\$5,000
Radios	\$9,800
Bus Stop Signs	\$16,200
Bus Stop Benches	\$20,000
Shelters	\$12,000
Shop Equipment	\$15,000
Spare Parts Inventory	\$10,000
Administrative	
Coin Counter	\$3,000
Computer Equipment	\$5,000
Copier	\$1,500
Typewriter	\$500
Office Furniture	\$2,000
Capital Equipment Costs	\$488,655

Totals for Preferred Option

Total Cost	\$346,798	\$622,572	\$365,465	\$162,492	\$385,148
FTA (80%)	\$277,438	\$498,058	\$292,372	\$129,994	\$308,118
Local Government Match (20%)	\$69,360	\$124,514	\$73,093	\$32,498	\$77,030



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Exhibit VIII-2
Transit Development Program Committee
Recommended Transit Service Option

Transit Development Program

Grand Junction/Mesa County MPO

	1997	1998	1999	2000	2001	2002
Return to 1996 Level of Services						
Total Cost	\$524,810	\$833,991	\$648,661	\$868,931	\$674,462	\$905,876
Operating Costs	\$496,810	\$487,193	\$495,209	\$503,466	\$511,970	\$520,729
Capitalized Contract Costs	\$0	\$121,798	\$125,452	\$129,215	\$133,092	\$137,085
Capital Equipment Costs	\$28,000	\$225,000	\$28,000	\$236,250	\$29,400	\$248,063
Local Government Funds	\$117,800	\$239,500	\$206,055	\$327,095	\$365,416	\$426,024
Operating Costs	\$117,800	\$170,140	\$175,365	\$254,002	\$332,918	\$348,994
Capitalized Contract Costs	\$0	\$24,360	\$25,090	\$25,843	\$26,618	\$27,417
Capital Equipment Costs	\$0	\$45,000	\$5,600	\$47,250	\$5,880	\$49,613
Expand Current User Side Subsidy						
Total Additional Costs	\$0	\$157,286	\$162,005	\$166,865	\$171,870	\$177,027
Operating Costs	\$0	\$157,286	\$162,005	\$166,865	\$171,870	\$177,027
Capitalized Contract Costs	\$0	\$0	\$0	\$0	\$0	\$0
Additional Local Government Funds	\$0	\$78,643	\$81,003	\$83,433	\$85,935	\$88,514
Add Limited Fixed Route by 2000						
Additional Cost	\$0	\$0	\$469,600	\$389,118	\$400,792	\$412,816
Operating Costs	\$0	\$0	\$0	\$389,118	\$400,792	\$412,816
Capital Equipment Costs	\$0	\$0	\$469,600	\$0	\$0	\$0
Additional Local Government Funds	\$0	\$0	\$93,920	\$86,059	\$53,396	\$48,908
Operating Costs		\$0		\$86,059	\$53,396	\$48,908
Capital Equipment Costs		\$0	\$93,920			
Totals for Preferred Option						
Total Cost	\$524,810	\$991,277	\$1,280,266	\$1,424,914	\$1,247,124	\$1,495,719
Local Government Funds	\$117,800	\$318,143	\$380,977	\$496,586	\$504,747	\$563,445
Operating Costs	\$117,800	\$248,783	\$256,367	\$423,493	\$472,249	\$486,415
Capitalized Contract Costs	\$0	\$24,360	\$25,090	\$25,843	\$26,618	\$27,417
Capital Equipment Costs	\$0	\$45,000	\$99,520	\$47,250	\$5,880	\$49,613



McDonald Transit Associates, Inc.

Exhibit VIII-3
Preferred Alternative With Current Paratransit Capitalized
Maintain Original Local Government Funding
Spread FTA Carryover Funds as far as Possible

Operating Revenues	1998	1999	2000	2001	2002
FTA	\$248,783	\$189,506	\$342,465	\$245,392	\$246,665
Local County/City Funds	\$248,783	\$256,367	\$423,493	\$472,249	\$486,415
AAA (Title III) and Medicaid (Title XIX)	\$44,773	\$44,773	\$44,773	\$44,773	\$44,773
Fares	\$68,500	\$68,500	\$142,000	\$215,500	\$226,000
Other**	\$33,640	\$98,669	\$106,718	\$106,718	\$106,718
Total Operating Revenues	\$644,479	\$657,815	\$1,059,449	\$1,084,632	\$1,110,571
**Assumes Current MesAbility Contracts (St.Mary's, etc.) Continue					

Capital Revenues					
FTA	\$277,438	\$497,962	\$292,372	\$129,994	\$308,118
Local County/City Funds Total	\$69,360	\$124,610	\$73,093	\$32,498	\$77,030
Total Capital Revenues	\$346,798	\$622,572	\$365,465	\$162,492	\$385,148
	36134				
Total Revenues	\$991,277	\$1,280,387	\$1,424,914	\$1,247,124	\$1,495,719
Total Govt. Local Funds Required	\$318,143	\$380,977	\$496,586	\$504,747	\$563,445
Fruita	\$9,608	\$11,506	\$14,997	\$15,243	\$17,016
Mesa County	\$220,632	\$264,208	\$344,382	\$350,042	\$390,749
Grand Junction	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Palisade	\$4,677	\$5,600	\$7,300	\$7,420	\$8,283
Other	\$33,226	\$49,664	\$79,907	\$82,042	\$97,397

grantees to fund projects in such a way as to ease the burden on the local share. The following are examples of such opportunities which have been drawn from FTA issued documents. The FTA acknowledges that this is not a complete list, and it encourages grantees to contact their regional office if they have ideas for other financing techniques which might receive approval.

1. Innovative Arrangements for Providing Local Match for Capital Equipment Costs

The McDonald Transit managed transit systems regularly utilize some innovative arrangements for providing local match on capital equipment expenditures that have a direct application for the TDP's planned capital expenditures in 1999. The total capital budget for 1999, when five 22 passenger buses will be purchased for the limited fixed route service, is \$622,572 (FTA = \$497,962, Local Match = \$124,610). One fixed route related amenity that would relieve traffic congestion, and provide easy transfer points for passengers who wanted to change from one route to another, is to provide a curb cut and bus stop lane at heavily traveled spots. Mesa State College already has such lanes on 12th.

If entities such as Mesa Mall, St. Mary's Hospital, or Mesa State College were to donate the title for the property required to put in such a lane to the political entity in which they are located, the value of that property could be applied by that entity against the local match amount required.

Springs Transit in Colorado Springs is having bus shelters installed and paid for by an advertising firm. The firm will pay for all costs of the construction and maintenance, and in return they will receive an exclusive contract to sell advertising on the shelters. A portion of those advertising revenues are kept by the advertiser, but the advertising revenues are also a source of funding for Springs Transit.

2. Capital Cost of Contracting

In October of 1996 the FTA printed a circular concerning eligible capital costs. In order to provide greater flexibility in the utilization of FTA funds under the



limitations imposed by the "Operating Cap" a number of costs were allowed to be "capitalized," or shifted from the operating budget to the capital budget. Eligible capital costs include the capital portion of costs for service or maintenance provided under contract. Such costs are commonly referred to as the "capital cost of contracting" and include depreciation, interest on facilities and equipment, as well as those allowable capital costs that might be incurred directly by the grantee. Capital consumed for service or maintenance in the provision of service outside the transit portion of the contract, such as for charter or school bus service, is not eligible.

In order to avoid imposing burdensome accounting rules, FTA will allow a percentage of leased service or contracted maintenance to be considered capital costs without further explanation. Those percentages and the corresponding type of service are shown below. A grant applicant may apply for a higher percentage than shown, but must provide appropriate written cost information and documentation to justify to FTA a higher percentage.

**Percent of Contract Allowed for Capital
Without Further Justification**

Type of Service	Percent
Demand-responsive service, non-commuter paratransit service, and service for the elderly and persons with disabilities	20 percent
Regular circulator service	25 percent
Commuter services, including express, park-and-ride, and vanpool service	35 percent
Vehicle maintenance services	25 percent

In Mesa County all of the current services provided by MesAbility qualify as "Demand-responsive service, non-commuter paratransit service, and service for the elderly and persons with disabilities." This means that 20 percent of the operating costs of the currently operated services (\$121,798 in the 1998 budget) can be taken



out of the operating budget and be "capitalized," without further justification to the FTA. As a part of the capital budget, these funds fall under the 80-20 local match ratio. Instead of requiring \$60,899 in local match (under the operation 50-50 match requirements), the capitalized portion requires only \$24,360, for a savings of \$36,539.

In the Transit Development Plan, these savings have been figured into the five-year budget. Note that we have not applied this "capitalization" against the expansion of the "User-Side-Subsidy" taxi cab program, since at least a portion of the expanded program will be used to provide welfare to work transportation that may not be eligible. It is recommended that this program be analyzed during the 1998 fiscal year, and a ruling be requested from FTA as to the eligibility of this program to fall under this clause also.

3. Associated Capital Maintenance

Spare parts can be capitalized if the part is valued more than 1/2 of 1% of the depreciated cost of the vehicle using the straight line method. In Grand Junction, spare parts for a medium duty vehicle depreciated over five years costing \$75,000 would be eligible for capitalization as follows:

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
\$75,000	\$60,000	\$45,000	\$30,000	\$15,000	\$0
0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
\$375	\$300	\$225	\$150	\$75	\$0

For example, in year two, any part costing at least \$300 could be capitalized. In year six, all parts could be capitalized.

4. Capitalizing Vehicle Overhauls

A grant applicant may apply for FTA capital assistance for vehicle overhauls in an amount up to 20 percent of its annual vehicle maintenance costs. This eligibility for capital assistance applies also to leasing and to contracted service.



5. Leasing

FTA funds may be used to lease, rather than purchase, transit equipment and facilities, so long as leasing is more cost effective than a direct purchase. This applies to both new and preexisting leases. FTA regulations at 49 C.F.R. Part 639 prescribe how leasing of transit equipment may be eligible.

This financing technique is used mostly under Urban Area Formula Fund Grants (49 U.S.C. 5307, formerly Section 9), but the FTA permits its use on a case-by-case basis, using slightly different criteria, under the Capital Program (49 U.S.C. 5309, formerly Section 3), Nonurbanized Area Formula Program (49 U.S.C. 5311, formerly Section 18), and Elderly and Persons with Disabilities Program (49 U.S.C. 5310, formerly Section 16).

6. Certificates of Participation (COPs)

Certificates of Participation (COPs) are a type of leasing arrangement in which bonds are issued to finance the purchase of transit assets. An arrangement is made between a transit agency and a trustee or nonprofit entity to issue bonds. Cash received for the sale of the bonds is used to purchase transit equipment, typically vehicles, and the trustee becomes a lessor, who leases the equipment for the transit agency (lessee) for seven to 12 years (the asset is used as security). The lessor has transferred its rights to receive the lease payments to the bond holders. Lease payments made by the transit agency from local revenue sources and federal grants. In this way, a transit agency may be able buy needed equipment now, with future reserved funds.

7. Joint Development

FTA funds can be used for a variety of joint development activities, so long as they are physically or functionally related to a transit project and they enhance the effectiveness of the transit project. This includes assets previously acquired with FTA funds. For example, land now used for station parking and no longer needed for transit purposes may be converted to use in a transit-related development project. An exception is that Federal funds cannot be used for the construction of



commercial revenue-producing facilities.

8. Use of Proceeds from Sale of Assets in Joint Development Projects.

Property that was used for transit purposes may be sold, and the proceeds used to purchase other property for a joint development project. For example, property that is no longer used for a downtown transfer center can be sold to help finance a multi-modal transit center.

9. Innovative Procurement Approaches

The FTA now allows a variety of innovative procurement techniques, including purchasing buses for multi-years in one package, combining purchases of several agencies to take advantage of efficiencies of scale, and turnkey methods of facility purchase.

10. Deferred Local Match

A grantee's local match of transit projects can be deferred, with prior approval from FTA.

11. Like Kind Exchange

This technique allows the federal interest in an asset to be transferred to a new, like kind asset, thus allowing the early replacement of an asset without having to return the federal share of the residual value. For example, buses can be sold before the expiration of their useful life, and the proceeds used to purchase new buses, as long as the remaining federal interest in the old buses is transferred to the new.

12. Incidental Non-Transit Use

FTA funds can be used to purchase a facility that will also be used for non-transit purposes, for example, in the building of a fueling facility to be used by a transit agency and a City's Public Works vehicles. In such a case, the FTA will fund a



proportionate share of the facility cost depending on the amount of expected use by the transit agency.

13. Transfer of Federally-Assisted Assets

Federally funded assets can be transferred to another public use when they are no longer needed for transit. In such cases, the federal portion of the undepreciated value of the asset must be returned to the FTA, or, as another innovative financing technique, the local agency can contribute some other type of local support to the transit system in lieu of FTA payment.

14. Coordinated Urban and Rural Services

If a coordinated urban-rural transit system exists, assets acquired with Urbanized Formula Program funds (49 U.S.C. 5307, formerly Section 9) or Capital Program (49 U.S.C. 5309, formerly Section 3) funds can be used in rural areas together with assets acquired under the Nonurbanized Area Formula Program (49 U.S.C. 5311, formerly Section 18). Likewise, assets acquired for service in non-urbanized areas can be used in urbanized areas as part of such a coordinated system.

Local Funding Sources

• Introduction

The Grand Junction City Council approval of the Grand Junction/Mesa County MPO's transit development plan is conditioned on a maximum City contribution of \$50,000 annually. Staff from Mesa County, the City of Fruita, and the City of Palisade met to discuss acceptable rationales for establishing local funding. The following is a description of the rationale developed, with an outline of the five year funding levels from each source.

The rationale developed by the staff is based upon population levels, but takes into consideration the fact that the County has a responsibility for all residents,



including the residents of Fruita, Grand Junction, and Palisade. The residents of Grand Junction, Fruita and Palisade are thus counted twice, once as a city resident and once as a resident of the County.

Table 1 shows how each of the participating governments would contribute, based on the rationale described above.

Table 1

	1998	1999	2000	2001	2002
Mesa County	\$220,623	\$264,124	\$344,382	\$350,042	\$390,749
Grand Junction	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Fruita	\$9,608	\$11,502	\$14,997	\$15,243	\$17,016
Palisade	\$4,677	\$5,599	\$7,300	\$7,420	\$8,283
Other Sources	\$33,226	\$49,632	\$79,907	\$82,042	\$97,397
Total	\$318,143	\$380,857	\$496,586	\$504,747	\$563,445

For purposes of this plan, it is assumed that Mesa County will work closely with the transit provider to raise additional funds from other sources in order to make up for the shortfall. Mesa State College and School District 51 have been mentioned as viable potential funding partners.

Federal Transit Administration carryover funds available

The following details the source year for each year's FTA funding:

1998 - Total federal funds needed = \$526,221

Use: \$219,812 (1995 capital funds)
\$ 57,626 (1996 capital funds)
 \$277,438 (Total FTA capital funds needed)



Use: \$248,783 (1995 operating funds)
\$252,765 (Total FTA operating funds available)

Note: \$3,892 in 1995 FTA operating funds will be returned unless they can be matched from other sources.

1999 - Total federal funds needed = \$687,468

Use: \$140,133 (1996 capital funds)
\$216,129 (1997 capital funds)
\$141,700 (1998 capital funds)
\$497,962 (Total FTA capital funds needed)

Use: \$189,506 (1996 operating funds)
(Total FTA operating funds needed)

2000 - Total federal funds needed = \$634,837

Use: \$ 74,429 (1998 capital funds)
\$216,129 (1999 capital funds)
\$ 1,814 (2000 capital funds)
\$292,372 (Total FTA capital funds needed)

Use: \$189,506 (1997 operating funds)
\$152,959 (1998 operating funds)
\$342,465 (Total FTA operating funds needed)

2001 - Total federal funds needed = \$375,386

Use: \$ 129,994 (2000 capital funds) Total FTA capital funds needed

Use: \$ 36,547 (1998 operating funds)
\$189,506 (1999 operating funds)
\$ 19,339 (2000 operating funds)
\$245,392 (Total FTA operating funds needed)



2002 - Total federal funds needed = \$554,783

Use: \$ 84,321 (2000 capital funds)
\$216,129 (2001 capital funds)
\$ 7,668 (2002 capital funds)
\$308,118 (Total FTA capital funds needed)

\$170,167 (2000 operating funds)
\$ 76,498 (2001 operating funds)
\$246,665 (Total FTA operating funds needed)

2003 - Total federal funds still available

\$208,461 remaining from 2002 - FTA capital
\$216,129 remaining from 2003 - FTA capital
\$424,590 FTA Capital still available for 2003

\$113,008 remaining from 2001 - FTA operating
\$189,506 remaining from 2002 - FTA operating
\$189,506 remaining from 2003 - FTA operating
\$492,020 FTA Operating still available for 2003

Operations Scheme

We recommend the establishment of a steering committee to assume oversight of the transit operation. With the implementation of a limited fixed route system, we also recommend that a staff person be assigned as a "Transit Coordinator" with responsibility for working directly with the transit provider. The steering committee and transit coordinator would work with the transit provider to expand the current services, to take advantage of the opportunities for greater coordination among paratransit providers, and to develop and implement a two-year planning and marketing process for the creation of routes, schedules, and headways for the limited fixed route service. The paratransit coordination activities are reviewed at greater length in Chapter VI "Transit Coordination Planning."

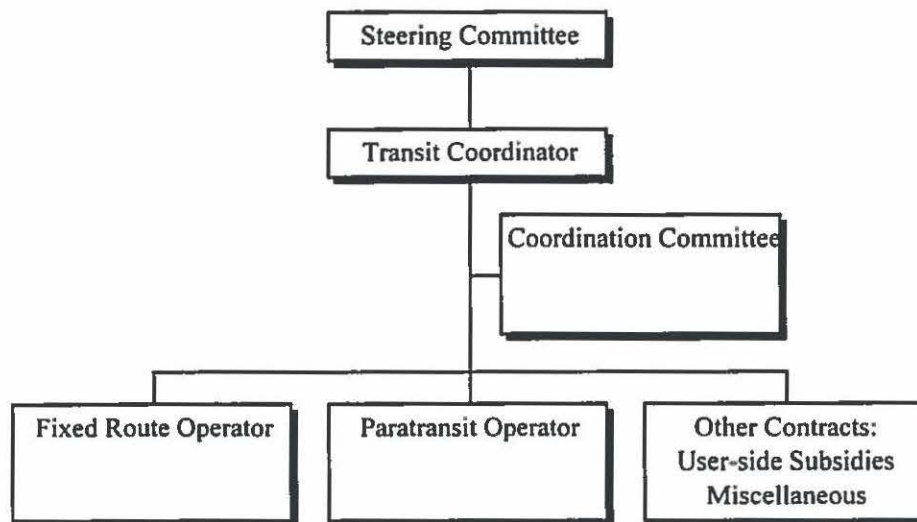


Management and Organization

With the expansion of transportation services to include fixed route service in Mesa County, consideration needs to be given to a new organizational structure. This structure can provide oversight and coordination between the different modes of transit service, separate contractors involved, and the various elements within the community with interests in transportation.

The following organizational structure is proposed for Mesa County:

Mesa County Transportation Organization Chart



Steering Committee

In this organization model, transportation in Mesa County would receive its ultimate direction from a Steering Committee. The committee would be a policy making body composed of elected officials from each participating jurisdiction, initially Mesa County, Grand Junction, Fruita and Palisades. As other cities join the transportation



system, committee membership could be expanded to include their representation. There also could be a member representing the Civic Forum since this group has been instrumental in the formation of this transportation plan.

Representation on the committee should probably be one member for each agency. The experience of other steering committees and transit boards around the country is that smaller groups function better, as the decision making process is easier. If the proportionate size of the jurisdictions becomes an issue, multiple members can be allowed for those communities with larger populations, or a formula for weighted voting can be built into the committee's bylaws.

The steering committee would be responsible for all transportation policy issues in Mesa County, including:

- days and hours of service
- routes and schedules
- fare structures
- paratransit eligibility
- capital replacement programs
- approval of the Transportation Improvement Program

Normally, the committee would stay out of the day to day operation of the system, except to investigate complaints or other issues received through citizen input.

Depending on the amount of authority the member jurisdictions wish to bestow on the Steering Committee, it could go as far as being declared the federal grantee, responsible for filing FTA grants. This could be done through an interlocal agreement with the FTA designated recipient, relieving this agency of its grant management responsibilities.

Transit Coordinator

There will need to be a person charged with coordinating the transportation efforts of the providers and the Steering Committee. This "Transit Coordinator" would be responsible for:



- seeing that policies created by the Steering Committee are followed,
- monitoring the performance of transit providers,
- and making recommendations to the Steering Committee for policy development and other issues.

The Transit Coordinator would be assisted in this effort by a transportation coordination committee composed of non-elected officials representing social service agencies, transit dependent clientele and transportation providers. The committee would have no official authority to take specific actions. It would merely provide a environment were the various transit representatives could share ideas and coordinate their efforts. The Committee could make recommendations to the Steering Committee, or investigate problems or ideas for which the Steering Committee requested information.

The Transit Coordinator would also be responsible for overseeing the performance of the various transportation providers, including any contractors operating the fixed route and paratransit services. Tasks would include:

- monitoring on-time performance
- following up on complaints
- examining vehicle condition
- payment of contract fees
- formulation of new contracts and Requests for Proposals

This coordinator would keep the Steering Committee informed on the service provided by the contractors.

A third responsibility of the Transit Coordinator would be to recommend policy additions and/or changes to the Steering Committee. These would address service levels, fare structures, and other issues.

Depending on the size of the transportation network, and thus, the workload of the Transit Coordinator, this position could be full or part-time. It is also possible that this function could be fulfilled through a contract with a company that provides transit



management assistance and consulting, since such an organization can employ more expertise and experience than can be found in one individual, especially one who works part-time.

Current FTA Urban Area Formula Fund grant expense eligibility rules allow funds spent for planning and grant management to be capitalized. In this case, 80% of the salary or fee for the Transit Coordinator position would be paid by the Federal Transit Administration.

Marketing Program

Introduction

The ultimate success of a transportation plan is the implementation of the recommended project. Plans must not be so controversial or expensive that they sit on a shelf and gather dust. All of the diverse elements of the community must find consensus in order for the most important elements to proceed. While the entire community may not fully approve of each element of the project, they must understand the reasons and needs for the project and agree to their implementation, or at a minimum, to not actively work against implementation. In order to accomplish this, the development and evaluation of project ideas and alternatives must be an open, cooperative process that involves important elements of the community. It must be fully coordinated through a public involvement process that gives everyone the opportunity to be informed.

The success (implementation) of the limited fixed route system in the year 2000 is dependent upon successful partnering among the transit agency staff, the elected officials of the stakeholder government entities, the transit steering committee, the existing paratransit riders, the agencies that are currently providing transportation services to client groups that might make a transition to the fixed route, and the neighborhoods that will be connected by the fixed route system.



Detailed Work Plan

Task 1. Identify Private Sector Stakeholders

McDonald Transit recommends a four-step approach in identifying private stakeholders.

1. Meet initially with Steering Committee and key staff to develop a preliminary list.
2. Internal discussions among the Committee and staff will expand the list;
3. Initial interviews with potential private sector stakeholders will allow us to identify additional potential private sector stakeholders; and
4. Initial interviews with potential public/agency stakeholders will allow us to identify additional private sector stakeholders.

While the list of private sector stakeholders is likely to evolve over the life of the project, we anticipate the majority of stakeholders will be identified and brought into the process within the first three weeks of work.

It is not enough, however, to simply identify private sector stakeholders. It is essential the stakeholders are continuously involved in the process and develop ownership of the process.

Throughout the study, staff should remain in close contact with the private sector stakeholders, both providing regular information to the stakeholders and seeking feedback and opinions of the stakeholders. Without the support of these key players, no project truly can be successful.

Task 2. Identify Public/Agency Stakeholders

We recommend the same four step approach in identifying public/agency stakeholders.



1. Meet initially with Steering Committee and key staff to develop a preliminary list;
2. Internal discussions among the Committee and staff will expand the list;
3. Initial Interviews with potential private sector stakeholders will allow us to identify additional potential public/agency stakeholders;
4. Initial interviews with potential public/agency stakeholders will help to identify additional stakeholder candidates.

It is important to note we do not limit the definition of public/agency stakeholders to government agencies. There are many additional potential public stakeholders including, but not limited to, other transportation providers, neighborhood groups, senior citizen groups, private nonprofit organizations, and community service groups. Each of these types of groups has a public constituency which must be involved in order to achieve a true community wide consensus.

While the list of public/agency stakeholders is likely to evolve over the life of the project, we anticipate the majority of stakeholders will be identified and brought into the process within the first three weeks of work.

Again, it is not enough to simply identify public/agency stakeholders. They, too, must be continuously involved in the process and develop ownership of the process.

Throughout the study, the Steering Committee and staff must remain in close contact with the public/agency stakeholders. There should be regular communication of information to the stakeholders and feedback and opinions should be sought from them.

Task 3. Focus Groups

McDonald Transit believes focus groups can offer a good "snapshot" of the opinions of the broader community and that they are an excellent method of "reality check."

We recommend that the Steering Committee arrange and supervise a series of focus groups. The first series of groups will be held to develop a sense of current public



attitudes toward the transit system and to test planned messages for the subsequent neighborhood meetings. The focus groups will allow the Committee to "check" messages for clarity and understandability.

The second series of focus groups will provide an opportunity to learn how the wants and needs of the "interested parties" (i.e., stakeholders and neighborhood groups) compare to the wants and needs of the broader "disinterested" community. Again, these groups provide the opportunity to validate potential messages planned for the formal public hearing.

It may be in the interests of the Steering Committee to hire an outside consultant to serve as the coordinator of the focus group effort. A professional research firm can assist the consultant, while the consultant can assist in educating the researcher with agenda development. In order to make the research effort as "pure" as possible, the independent researcher should be required to submit a written report and video tape from each round of focus groups.

Task 4. Steering Committee

As a group of recognized community leaders, the steering committee offers the earliest opportunity to begin building the consensus necessary for a successful long term plan. The steering committee will serve as the key sounding board between the neighborhoods, stakeholders, and general public and the study team throughout the entire project. The steering committee can also be expected to provide ideas and leadership throughout the project. The steering committee should include one elected official and one staff person from each governmental entity involved, plus representatives from the Civic Forum and from the Transit Agency.

A consultant can work closely with transit agency staff in developing agendas and educating the steering committee about the project and the committee's potential to assist in a positive outcome. It is important the members understand that attending meetings is not enough. They are the communications link with other elected officials and staff from their governmental body. Beyond this, they must also embrace the idea of becoming ambassadors for the expanded transit system. This can be done formally by involving steering committee members in presentations before organized groups



and/or informally by steering committee members simply talking about the project with friends, business associates, acquaintances, and family members.

Task 5. Relationships With Existing Paratransit Passengers

While it is true existing paratransit system passengers may perceive they have the most to "lose" through the implementation of a fixed route system, it is equally true they have the most to gain. If the outcome of this plan is a system that is more convenient and reaches more destinations for the non-riding public, it follows the new system will also be more convenient and reach new potential destinations for the current passenger.

A truism of marketing is "it is less costly to get beer drinkers to drink more beer than it is to create more beer drinkers." Another truism is "a consumer's perception is that consumer's reality." The problem is not that current riders are likely to be inconvenienced, but rather that uninformed current riders are likely to perceive they will be inconvenienced.

The challenge, then, is in managing the perceptions of current paratransit riders. While one of our major goals is to create community ownership of the transit system, this group, more than any other, already feels ownership of the current paratransit system. They must be brought into the process of route selection and scheduling at an early stage. They must be sold on the idea that the fixed route system will provide them with a less expensive mobility choice while also providing an option for more spontaneous decisions to go somewhere, without the responsibility for making advanced reservations.

A joint travel training program for all of the current MesAbility clients, as well as clients from Mesa Developmental Services, Family Health West, Hilltop, and other agencies should be strongly encouraged. "Ride coaches," or "transit ambassadors," should be provided to introduce people to the fixed route system and to help people to get around on it. The possibility of having "Transit Travel Hosts," like those provided by the Resource Exchange in Colorado Springs, should also be considered.



Task 6. Relationships With Neighborhood Groups

The steering committee should establish a relationship with all active neighborhood groups in the community. This can be done with the assistance of the Civic Forum. We recommend that the Civic Forum and steering committee facilitate two series of neighborhood meetings/open houses.

We recommend an informal "open house" approach to these meetings. Through the use of displays and interaction through story-boarded public comment, the citizens in each area will be given an early opportunity to assist in the development of routes and schedules that best meet their needs.

The first series of open houses will provide an opportunity to introduce the routing and scheduling study to the neighborhoods and capture current public opinion about existing service as well as desired levels of service. The first meetings will provide many answers to the three key questions:

1. Where do you want to go?
2. How close does the bus have to come to your home for you to use it?
3. How often does the bus have to come for you to use it?

The Civic Forum and steering committee should actively promote the neighborhood meetings to ensure high turnout.

The second set of meetings provides an opportunity, prior to a public hearing on the implementation of the fixed route service, to determine how well we are doing. Again, we recommend using the open house format at these meetings. The essential content of these meetings will be to report back to the neighborhoods on the potential options for routes and schedules, and the meeting participants should then have an opportunity to comment on their likes and dislikes. Our neighborhood meeting approach is designed for residents to talk and for the steering committee to listen, in the most non-confrontational way possible.



Maintenance Program

1. Preventive Maintenance

Proper vehicle maintenance requires a total commitment to the concept of preventive maintenance (PM). The goals of a PM program are to ensure that vehicles are safe to operate, reliable, clean, achieve the best performance at the least cost, and obtain their maximum useful life. The success of a PM program results from strict adherence to a progressively detailed schedule of servicing, adjustments and inspections based on predetermined intervals. In order for the PM program to be most effective, it must be designed for specific vehicles, incorporate all manufacturer's recommendations for servicing and repairs, and fit the vehicle's operating conditions. As the principles of PM are implemented, the number of emergency repairs will decline, the safety program will benefit, maintenance costs will be controlled, and schedule adherence and public relations will improve.

In order to implement a sound PM program, procedures and checks are established at three levels: the bus operator, service personnel and mechanics.

2. Bus Operator Pre-Trip Inspections and Vehicle Condition Reports

The bus operator is the key element in implementation of two critical components of the PM program: (1) pre-trip inspections (2) reporting of vehicle defects. There needs to be established procedures whereby bus operators are trained to complete a checklist of inspections prior to operating a vehicle in public service. Pre-trip inspections are designed to detect problems in such areas as lighting, tires and safety equipment before failures occur while the vehicle is in service. An additional responsibility of bus operators in the PM program is to monitor the operating condition of the vehicle. All defects are documented on vehicle condition reports, and corrective action is taken before the vehicle is returned to service.



3. Service Inspections

A second level of the PM program is the inspection that occurs each time a vehicle is fueled, serviced, washed and cleaned. While this process is taking place, an inspection is made of key components such as brakes, windshield wipers, lights and tires. Any defects which are detected are repaired before the vehicle is placed in service.

4. Mechanical Inspections

The third important level of the PM program comprises scheduled inspections performed by skilled mechanics. These inspections are generally performed on a mileage basis, and cover all major components of the vehicle. Additional inspections include specific recommendations by the equipment manufacturers as well as seasonal inspections of air-conditioning and heating systems.

5. Vehicle Cleaning

Vehicle cleanliness is critical to maintaining a positive public perception of the transit system. Patrons are far more likely to continue to use transit services if they are viewed as well maintained and progressive, and individuals who have not yet taken advantage of public transportation will be more inclined to do so.

All vehicles should be cleaned following each day of service. Daily cleaning includes exterior washing, removal of all trash and litter, sweeping the floor, dust wiping seats and grab rails, general cleaning of the operator's area, and spot cleaning surface dirt on walls, windows and seats as needed. Detailed cleaning, to include window washing, gum and graffiti removal, floor mopping, and cleaning of the ceiling and walls are performed as needed.

8. Major Repairs

Major repairs such as scheduled unit overhauls and rebuilds, unscheduled unit rebuilds, and accident repairs, may be performed in-house or contracted to outside



sources. The approach, first, is to operate the preventive maintenance and safety programs in such a way that unscheduled repairs are minimized and the maximum number of major repairs are scheduled in an orderly fashion. It is recognized, however, that adequate personnel resources must be available to handle unanticipated unit failures and accidents as they occur.

Generally, it is more cost effective to perform major repair and overhaul work in house, if adequate resources exist. In the case of a small transit system, like that proposed for Grand Junction, however, outside sources will be more cost effective than committing the capital investment to create the necessary resources in house. Factors affecting the in-house or outside contract decision in a particular case include: the complexity of the particular repair to be made, the availability of shop space and required special equipment, the availability of personnel with the necessary skill levels, the proximity of satisfactory outside sources, the cost of outside contracting, and immediacy of the need for the vehicle's return to service.

9. Breakdowns

Breakdowns mean service interruptions, and the first consideration is restoration of service with minimum passenger delay. The method of handling a road failure is driven by the most expeditious way of restoring service, which is dependent upon the nature of the failure and the location of the vehicle. If the failure prevents safe operation of the vehicle, a replacement is dispatched to the scene immediately, usually driven by a mechanic who turns the replacement vehicle over to the coach operator, and then deals with the bad order vehicle. This customer oriented approach requires scheduling repairs and inspections so that spare revenue vehicles be available for immediate service during all hours of operation, and personnel are available to deliver them. If the failure does not prevent safe vehicle operation, and can be repaired on line, the repair may be effected at a scheduled layover point.

The frequency of road calls is a measure of the effectiveness of the preventive maintenance system, and service miles between roadcalls should be closely monitored.



10. Warranty work

On new vehicles, warranty work can be performed in house, and charged to the manufacturer in accordance with an agreed rate schedule. The method usually effects the repairs more quickly than waiting for the manufacturer to send personnel to perform the work. The effectiveness of this system is dependent upon a working agreement with the manufacturer, clearly understood by both parties, which spells out procedures for advance approval of the work, the rates to be charged, the mark up on parts, the method of payment, etc. It is helpful to include in equipment purchase contracts the withholding of payment of a portion of the purchase price until all warranty work is completed. Accurate job-cost record keeping, invoicing, and follow up are obvious essential elements of the program.

11. Record Keeping

A management information system is essential for a successful maintenance program. Mileage records are carefully kept to ensure that inspections and maintenance are performed on a timely basis. Major components are tracked to monitor abnormal failure rates. Individual vehicle records are maintained so that any vehicle which is not performing to fleet standards is quickly identified for corrective action.

12. Inventory Control

Inventory control is integrated into the maintenance MIS which generates vehicle history records, fleet maintenance reports, PM schedules and schedule adherence, parts usage, inventory balance and value, high and low limits, and reorder documents. The key to maintaining an accurate inventory is physical control of parts storage and issuing to assure that all receipts and issues are promptly and accurately entered into the system. The actual parts inventory should be checked against inventory records on a random basis periodically throughout the year, and a complete inventory count taken annually. The annual count may be supervised and verified by outside auditors. As a sample, the Maintenance Plan developed by McDonald Transit specifically for Springs Transit is included as Appendix D.



Appendix A: Household Survey

Background and Objectives

The Grand Junction/Mesa County Metropolitan Planning Organization contracted with McDonald Transit to develop a Transportation Development Plan in the Grand Valley. The project seeks to determine the viability of potential new transit options. In support of this analysis, NuStats Inc. was subcontracted to conduct a household survey of the Grand Valley residents. The key objectives of the research were to:

- collect basic household and person demographics;
- determine support for citywide and county-wide transit;
- determine attitudes towards potential funding sources;
- assess reaction to proposed public transit alternatives;
- assess the likelihood of public transit use;
- identify preferred system characteristics;
- determine key destinations

Methodology

A household telephone survey of the Grand Valley residents was conducted in March to determine support for a fixed route transit system in Grand Valley. The universe of respondents was defined as residents of Grand Valley with:

- a. a home zip code of 81501, 81502, 81503, 81504, 81505, 81506, 81520, or 81521,
- b. a listed phone number and
- c. at least 18 years of age.

The survey was conducted using computer-aided telephone interviewing (CATI) technology. The CATI program design allows for three distinct and highly



accurate means of managing sample and the quality of data. First, the program discriminates by predetermined criteria thus ensuring that no respondents would be under the age of 17 or live outside the predetermined area. Second, skip pattern capabilities permit only relevant questions to be asked. For example, if a respondent indicated that s/he was not employed outside the home, questions such as the location and hours of employment are automatically skipped. Finally, a quota for each zip code was set and used as the determinant for the program to issue a message to the interviewer to terminate the interview. The quota was determined by dividing the number of residential listings of each zip code by the total number of residential listings in all the study zip codes. That proportion was multiplied by the number of interviews required for the study.

All residential records provided by Prophone 1996 for the zip codes 81501, 81502, 81503, 81504, 81505, 81506, 81520, or 81521 were used as sample. The 1996 data was chosen over the 1997 data for the following reason. The 81502 zip code, which includes post office box addresses, had 3382 records for 1996 and only 122 records for 1997. This discrepancy in the number of records could not be resolved in a timely manner. Since there was concern that the 1997 data was not complete and households would be missed, the 1996 data was chosen. The CATI program requested zip code information at the beginning of the survey that was used to discriminate between when to proceed or to terminate the interview. Thus, if the 1996 records had erroneous zip codes the program would be able to terminate as needed. Because the pieces of sample were randomly selected by the CATI program, the results of the study can be generalized to its entire universe.

To ensure representativeness, the sample was generated as a proportion of the population with the listed sample for each zip code area computed in proportion to the total listed sample for all zip code areas. In other words, if zip code 81501 had more population listed in the sample than zip code 81505, the set quota for the former zip code was larger than the quota for the latter. The percentage of the population listed in the sample for Mesa County is 95.7% which provides a fairly high level of accuracy.

Exhibit 1 provides a map of the zip codes in the grand valley, with the zip codes used noted.

The data was collected during the evenings from 5:00 pm to 9:00 pm, Monday through Friday, and from 12:00 pm to 6:00 pm on weekend days from March 21 through March 31 with the exception of March 22nd, 27th and 30th. Prior to the start of data collection, each interviewer was briefed thoroughly on the instrument, the study area and the purpose of the study. Both the data and the interviewers were monitored continuously to ensure quality data collection. A sample size of 316 has precision (or interval width) of $\pm 5.4\%$ and a confidence level of 95%.

Survey Results

Demographics

Of the 316 individuals who completed the survey, 37% are male while 63% are female. Interestingly, the largest age group (30.4%) was 65 or older with 96 respondents. This is in line with the rapidly growing retirement population in the Grand Valley, and the fact that 24% of the current Grand Junction population is over the age of sixty (60). Eighty four percent of the total sample are registered to vote in the Grand Valley, 15.2% are not registered and 0.6% either didn't know or refused to answer. The age of the respondents is broken down in Table 1.

Table 1
Age of Respondents

Age	Frequency	Percent
18 - 24	18	5.7%
25 - 34	37	11.7%
35 - 44	77	24.4%
45 - 54	50	15.8%
55 - 60	18	5.7%
60 - 64	19	6.0%
65 or older	96	30.4%
Don't know / Refuse	1	0.3%
Total	316	100.0%

The number of respondents in each zip code is as follows in Table 2.



Table 2
Zip codes Where Respondents Live

ZIP CODE	Frequency	Percent
81501	75	23.7%
81502	10	3.2%
81503	68	21.5%
81504	63	19.9%
81505	16	5.1%
81506	36	11.4%
81520	31	9.8%
81521	17	5.4%
Total	316	100.0%

Thirty nine percent of respondents are from two person households. One person households were represented by 24.7% of the sample. The remaining 36.1% of respondents have three or more people in their households. The average number of household members is 2.5. The household size is reported in Table 3.

Table 3
Household Size

HOUSEHOLD	Frequency	Percent
1 person	78	24.7%
2 people	124	39.2%
3 people	38	12.0%
4 people	45	14.2%
5 people	21	6.6%
6 people	8	2.5%
7 people	1	0.3%
8 people	0	0.0%
9 people	1	0.3%
Total	316	100.0%

Two percent of all individuals in all the households are unable to travel due to mobility impairment. Of the 100 household members under the age of 16, 1.0% is mobility impaired. Of the 451 household members between the ages 16 through 64, 1.6% are mobility impaired and of the 103 household members age 65 and older, 10.7% are mobility impaired.

Respondents were asked how many vehicles are available for use in the household. These figures are represented in Table 4. Nearly all respondents (96%) have their driver's license.

Table 4
Number of Vehicles Available in Each Household

Vehicles	Frequency	Percent
0 vehicles	10	3.2%
1 vehicle	93	29.4%
2 vehicles	135	42.7%
3 vehicles	55	17.4%
4 vehicles	17	5.4%
5 or more vehicles	6	1.9%
Total	316	100.0%

When asked if they are employed outside the home, 51.6% said no and 49.4% said yes. Grand Junction employs 82.1% respondents; Fruita, 3.8%, Clifton, 1.9%; 10.3% are employed elsewhere and 1.9% refused to provide a work address. The majority, 78.8%, of respondents work from 8 am to 5 pm or 9 am to 6 pm, 2.5% work from 4 pm to midnight and 1.9% work midnight to 8 am. The other 16.7% worked different hours.

The household income is represented in Table 5.

Table 5
Annual Household Income

Income	Frequency	Percent
Under \$10,000	32	10.1%
\$10,000 to under \$15,000	34	10.8%
\$15,000 to under \$20,000	36	11.4%
\$20,000 to under \$30,000	60	19.0%
\$30,000 to under \$40,000	40	12.7%
\$40,000 to under \$50,000	33	10.4%
\$50,000 to under \$75,000	33	10.4%
or over \$75,000	14	4.4%
Don't know	11	3.5%
Refuse	23	7.3%
Total	316	100.0%

Interest in and Support for an Expanded Transit System

When asked if respondents felt a need for a county-wide or city-wide public transportation system in the Grand Valley, 64.9% said definitely, 21.8% said probably, 6.0% said probably not, 2.2% said definitely not and 5.1% didn't know. The percentage who felt a need for public transportation was thus 86.7%. The responses to this question are cross-tabulated by zipcode in Appendix B.

The respondents that indicated a need for public transportation were asked to choose any of 4 separate goals as appropriate for a public transportation system. While convenience is the most important service for those with no mode of transportation, congestion and pollution issues are also of concern among respondents who are in favor of public transportation. Service for elderly and disabled is more ideal than service for those who would take the bus to go to work. Five percent individuals indicated other goals and less than 1% didn't know.



Table 6
Reasons for Support of Public Transportation System
(n=274)
Multiple Answers Accepted

Goals	Frequency	Percent
Reduce congestion and pollution	183	66.8%
Service to work in am and pm	194	70.8%
Service when no alternative	230	83.9%
Service for elderly and disabled	222	81.0%
Other	14	5.1%
Don't know	2	0.7%

Although 76.6% of respondents were aware of the current Grand Valley Elderly and Disabled Transportation Program only 7.6% of all households use it. When the respondents at these households were asked if they would use a bus system that ran every 60 minutes and cost 50 cents in conjunction with or in lieu of the Elderly and Disabled Transportation Program they responded, 16.6% would use only the program, 58.3% would take the bus, 8.3% would use both, 4.2% would use neither and 12.5% didn't know.

Only 10.1% of respondents had used a transit system regularly in another city in the past 5 years. Of the rest, 89.6% had not used a transit system and less than 1% didn't know. Fifty three percent of those who had used transit in the past indicated that they were dependent on transit while 46.9% of these respondents said they were not dependent.

Respondents were asked which of several items they would need more information regarding the bus system before they would use a bus. The results are: 64.6% indicated schedules, 58.5% information on routes, 45.3% bus stop location, 45.3% fares, 26.9% fare discounts, 13.6% other and 18.6% refused or didn't know

Table 7
Other information needed before you would use the bus
(n=316)
Multiple Answers Accepted

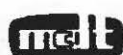
Information	Frequency	Percent
Schedules	204	64.6%
Routes	185	58.5%
Bus Stop Locations	143	45.3%
Fares	143	45.3%
Fare Discount	85	26.9%
Other	43	13.6%
Don't know/Refused	59	18.6%

Preferred funding

Respondents who felt there was a need for public transportation were asked: "Do you feel that some portion of your local taxes should support public transportation services in the area?" Of these respondents (n=309), 71.8% indicated that some portion of local taxes should support public transportation services in the area. Conversely, 16.8% said no to this question and 11.3% did not know. This is exhibited in Table 8.

Table 8
Public Funding of Transportation
(n=309)

Public Funding	Frequency	Percent
Yes	222	71.8%
No	52	16.8%
Don't Know	35	11.3%
Total	309	100%



For closer analysis, these results are cross-tabulated by zipcode in Appendix B. This is an extraordinarily high level of support for public transportation. To put this in perspective, 222 (70.3%) of the 316 persons surveyed indicated support for public funding of public transportation. This result has an interval width of plus or minus 5.4%, which means that a worst-case analysis would still find a strong majority of the population ($70.3\% - 5.4\% = 64.9\%$) in support of some portion of local taxes being used for the funding of public transportation.

The preceding question indicates a strong support for local tax funds being used for public transportation, but it must be viewed in light of a more detailed question concerning the raising of taxes in order to pay for this local funding. The specific wording of the question was: "If public transportation were provided in this area, two possible ways to pay for it would be to increase property taxes by \$20.00 per household per year, or to add ½ cent to the sales tax for transit purposes. Which one of these would you prefer?" The proposed methods of payment were divided among sales tax increase (55.0%), property tax increase (27.9%), neither (6.8%), either/combination (5.4%), other (0.5%) and don't know (4.5%). These results are represented in Table 9. Again, these are cross-tabulated by zipcode in Appendix B.

Table 9
Method of Payment

Payment	Frequency	Percent
Property Tax	62	27.9%
Sales Tax Increase	122	55.0%
Either/Combination	12	5.4%
Neither	15	6.8%
Other	1	0.5%
Don't Know	10	4.5%
Total	222	100.1%

When asked by whom this public transportation service would best be run, 44.7% of respondents indicated a non-profit corporation, 22.2% didn't know or refused, 17.9% said the city, 9.3% said the county and 5.8% said some other organization.



Bus Routes

Of the 316 respondents 94.0% are not students, 4.7% attend Mesa State College, 0.9% attend another school and less than 3 points of a percent refused to answer. Of the 316 households sampled, 79 or 25% are households with one individual only.

Table 10A
The Number of *Households* with Students at each Level Excluding the
Respondent
and Potential Bus Usage
(n=316)

School	Frequency *	Percent	Use Bus	Percent **
Elementary	57	18.0%	27	47%
Middle School	33	10.4%	20	60%
High School	40	12.7%	20	50%
Mesa State	15	4.7%	10	66%
Other School	9	2.8%	9	100%

Note: *Frequencies shown on this column are not mutually exclusive, thus some households have been double-counted.

**Percents shown on this column derive from sample sizes on the first column.

Of the total sample, 104 or 33% have children that go to school, and 59.6% of this group (of households with children going to school) report that their children would use the bus to attend school.

Table 10B
The Number of *Students* in Each Household Sampled at Each Level
Excluding the Respondent and Potential Bus Usage
(n=104)

School	Frequency	Percent	Use Bus	Percent
Elementary	80	18.0%	36	45%
Middle School	37	10.4%	23	62%
High School	48	12.7%	23	48%
Mesa State	21	4.7%	13	62%
Other School	10	2.8%	3	30%



The largest groups of students who would be inclined to ride the bus is that of students attending Middle School and Mesa State College. Children going to Elementary School and High School represent less than 50% of potential bus riders. The ratio of school-aged children to household is 25% or one out of four households have children that go to school. Table 10C shows the mean for students at all levels of schooling.

Table 10C
Average Number of Students for Households With Students
n=104

School	Mean
Elementary	.77
Middle School	.20
High School	.46
Mesa State	.36
Other School	.10

Table 11
Other Places All Students Would Take The Bus
(n=154)
Multiple Answers Collected

Places	Frequency	Percent
Work	18	11.7%
Shopping	19	12.3%
Recreation	40	26.0%
Social	18	11.7%
Sports	27	17.5%
Medical	2	1.3%
Don't Know/Refuse	60	39.0%

Tables 12 through 16 show how respondents usually travel. With the exception of traveling to school over 90% of respondents drive themselves to their destination. Other means of transportation that students use to go to school include riding their bicycle.



Table 12
How respondent usually travels to work
n=156
(Respondents that are employed outside the house)

Work	Frequency	Percent
Drive myself	146	93.6%
Have a friend or family drive	0	0.0%
Walk	3	1.9%
Other	7	4.5%
Total	156	100.0%

Table 13
How respondent usually travels to school
n=19
(Respondents who are students at the time of interview)

School	Frequency	Percent
Drive myself	11	57.9%
Have a friend or family drive	1	5.3%
Walk	3	15.8%
Other	4	21.1%
Total	19	100.1%

Table 14
How respondent usually travels to shopping
(n=316)

Shopping	Frequency	Percent
Drive myself	289	91.5%
Have a friend or family drive	17	5.4%
Walk	3	0.9%
Other	7	2.2%
Total	316	100.0%

Table 15
How respondent usually travels to medical
(n=316)

Medical	Frequency	Percent
Drive myself	289	91.5%
Have a friend or family drive	21	6.6%
Walk	1	0.3%
Other	5	1.6%
Total	316	100.0%

Table 16
How respondent usually travels to socialize
(n=316)

Socialize	Frequency	Percent
Drive myself	286	90.5%
Have a friend or family drive	20	6.3%
Walk	1	0.3%
Other	9	2.8%
Total	316	100.0%

Likelihood of Bus Usage

When asked if anyone in the household would use a city-wide public transportation system 2 out of 3 respondents indicated they would. Only 29.1% respondents indicated that they would not use city-wide public transportation. Two point five percent of respondents were indifferent. Eighty seven point eight percent said they would not move closer to a bus system; 5.0% of respondents indicated that they would move, 7.2% were indifferent. Seventy three point seven percent said they would not look for a job closer to a bus system whereas 6.5% of respondents indicated that they would look; 20.8% were indifferent.

Frequency, Affordability, Convenience

To ascertain the thresholds of frequency, affordability, and convenience of buses

necessary for respondents to use the system several different scenarios were offered. Sixty eight percent of respondents were amenable to the base scenario. The remaining 32% of respondents were asked to respond to scenarios that provided more frequent service, more convenient service and less costly service. The comparison of Tables 18 through 22 shows that changes in the cost had the greatest effect on influencing people to use the system. Reduced cost resulted in 64.3% of people opting to use public transit (Tables 21 and 22) as compared to 36.6% for convenience (Table 19 and 20) and 21.8% for increased frequency (Table 18).

Table 17
Base for frequency, Convenience and Cost.
Every 60 minutes / 6:00am - 6:00pm / cost \$1.00 /
Within 4 blocks of house and destination

Base	Frequency	Percent
Definitely	118	37.3%
Probably	97	30.7%
Probably Not	29	9.2%
Definitely Not	63	19.9%
Indifferent	9	2.8%
Total	316	100.0%

Table 18
Frequency of Service
Every 30 minutes / 6:00am - 6:00pm / cost \$1.00 /
Within 4 blocks of house and destination

Frequency of Service	Frequency	Percent
Definitely	8	7.9%
Probably	14	13.9%
Probably Not	21	20.8%
Definitely Not	52	51.5%
Indifferent	6	5.9%
Total	101	100.0%



Table 19
Convenience
Every 60 minutes / 6:00am - 6:00pm / cost \$1.00 /
Within 3 blocks of house and destination

Convenient	Frequency	Percent
Definitely	8	7.9%
Probably	12	11.9%
Probably Not	20	19.8%
Definitely Not	57	56.4%
Indifferent	4	4.0%
Total	101	100.0%

Among respondents who stated they would not use the bus system, changing the location of bus stops to 3 blocks closer to home and final destination would result in an increase of 29.8% bus riders.

Table 20
Convenience
Every 60 minutes / 6:00am - 6:00pm / cost \$1.00 /
Within 2 blocks of house and destination

Convenient	Frequency	Percent
Definitely	3	3.7%
Probably	14	17.3%
Probably Not	17	21.0%
Definitely Not	46	56.8%
Indifferent	1	1.2%
Total	81	100.0%

If location of the bus stop is two blocks closer to home or final destination, 21% of respondents who stated would not use the bus system will ride to bus.

Table 21
Cost
Every 60 minutes / 6:00am - 6:00pm / cost \$0.75 /
Within 4 blocks of house and destination

Cost	Frequency	Percent
Definitely	21	20.8%
Probably	18	17.8%
Probably Not	13	12.9%
Definitely Not	44	43.6%
Indifferent	5	5.0%
Total	101	100.1%

A decrease of 25 cents in the cost of riding the bus produces 38.6% increase of potential bus riders among those who would not have used the system otherwise.

Table 22
Cost
Every 60 minutes / 6:00am - 6:00pm / cost \$0.50 /
Within 4 blocks of house and destination

Cost	Frequency	Percent
Definitely	17	27.0%
Probably	9	14.3%
Probably Not	7	11.1%
Definitely Not	28	44.4%
Indifferent	2	3.2%
Total	63	100.0%

If the price of riding bus is reduced to 50 cents, 41.3% of respondents who would not have used the system with scenario #1 would now ride the bus.

Frequency of Bus Usage - Peak and Off Peak Times



Over 20 % of respondents preferred to use public transit during the hours of 7am to 6pm. The percent fall to 13.3% and 13.9% for the hours 6:00 am to 6:59 am and 6 pm to 6:59 pm, respectively. Outside those hours demand falls off to 7.3% and less. Table 23 provides a more detailed analysis of these times.

Table 23
What times of the day would you ride the bus?
(n=316)
(Multiple Answers Accepted)

Times	Frequency	Percent
5:00 am - 5:59 am	15	4.7%
6:00 am - 6:59 am	42	13.3%
7:00 am - 7:59 am	82	25.9%
8:00 am - 8:59 am	71	22.5%
9:00 am - 9:59 am	87	27.5%
10:00 am - 10:59 am	81	25.6%
11:00 am - 11:59 am	65	20.6%
12:00 pm - 12:59 pm	77	24.4%
1:00 pm - 1:59 pm	84	26.6%
2:00 pm - 2:59 pm	82	25.9%
3:00 pm - 3:59 pm	91	28.8%
4:00 pm - 4:59 pm	87	27.5%
5:00 pm - 5:59 pm	90	28.5%
6:00 pm - 6:59 pm	44	13.9%
7:00 pm - 7:59 pm	23	7.3%
8:00 pm - 8:59 pm	22	7.0%
9:00 pm - 4:59 pm	4	1.3%
10:00 pm - 5:59 pm	3	0.9%
11:00 pm - 4:59 am	2	0.6%
Don't Know	19	6.0%
Refuse	16	5.1%

In total, 84.8% of the respondents indicated that they would travel during some part of the week. Weekday travel accounts for 76.9% of respondents ridership expectations, Saturday accounts for 32.3 %, Sunday accounts for 27.2%. Those who don't know or refused to answer constitute 15.2% of the sample.

Table 24
What days of the week would you ride the bus?
(n=316)
(Multiple answers Accepted)

Days	Frequency	Percent
Monday - Friday	243	76.9%
Saturday	102	32.3%
Sunday	86	27.2%
Don't know	32	10.1%
Refuse	16	5.1%

Seventy two point two percent of people asked said they would make from 1 to 5 trips per week, 10.4 % said they would make from 6 to 10 trips. An additional 1.2% of respondents said they would make 16 or more trips per week. Sixteen percent didn't know or refused to answer.

Table 25
How many round trips per week would you make on the bus?

Trips	Frequency	Percent
1 - 5	228	72.2%
6 - 10	33	10.4%
11 - 15	0	0.0%
16 - 20	2	0.6%
21 or more	2	0.6%
Don't know	38	12.0%
Refuse	13	4.1%
Total	316	100.0%



Travel to Key Destinations

Respondents were asked to indicate where they would go on a bus. Table 26 shows the results of their answers from the most frequently mentioned to the least.

Table 26
Where would you go on the bus? (n=316)
 Multiple Answers Accepted

Places	Frequency	Percent
Mesa Mall Shopping	146	46.2%
Work	89	28.2%
Downtown Shopping	80	25.3%
Doctor/Dentist	79	25.0%
North Avenue Shopping	61	19.3%
Visiting/Recreation	45	14.2%
Other	44	13.9%
Personal Business	31	9.8%
Meal/Entertainment	28	8.9%
Sports	24	7.6%
Don't know	23	7.3%
Mesa State College	20	6.3%
Refuse	17	5.4%
Ski Area	15	4.7%
Elementary School	4	1.3%
High School	3	0.9%
Other School	2	0.6%
Middle School	1	0.3%

Conclusions

Six out of ten respondents feel that there is a definite need for a public



transportation system. Seven out of ten stated they would use the bus service. The top four destinations were Mesa Mall, work, downtown shopping, and medical appointments. Forty six percent would take the bus to go to Mesa Mall. Other places that bus riders would go to include a library, a grocery store and Walmart.

Most respondents (72%) agree that some of this system's support should come from local taxes. Preferred funding for this system is a sales tax increase (55%), although nearly 30% support a property tax increase towards this end.

Peak times for potential riders are between 3 and 4 pm and between 5 and 6 pm, with 29% respectively. Another set of times having a large percentage of bus usage (28%) are between 9 and 10 am and between 4 and 5 pm. Most (77%) respondents report that they would ride the bus from Monday to Friday. Nearly one third would ride the bus on a Saturday.

Potential transit users seemed to be most influenced by lower fares.

- A \$.50 decrease in proposed fare suggests a 64.3% increase in potential riders.
- A decrease in headway by 30 minutes suggests a 21.8% increase in potential riders.
- A bus stop that is 1 block closer to home suggests 36.6% more potential riders.

APPENDIX A

Comparative Table of Demographics on Population in Mesa County and respondents in the Grand Junction/Mesa County MPO Study

Note: Statistics were gathered from the County and City Data Book, 1994, 12th Edition. Published by the U.S. Department of Commerce, Economics and Statistics Administration, Bureau of the Census. The Census Data includes cities other than Grand Junction, Fruita or Clifton that are also in Mesa County, but were outside of the survey area.

Age	1990	1990 %	1996
18-24 years old	8.8	12.0%	5.7%
25 to 34 years old	14.9	20.4%	11.7%
35 to 44 years old	15.7	21.4%	24.4%
45 to 54 years old	10.2	13.9%	15.8%
55 to 64 years old	9.1	12.4%	11.7%
65 years old and over	14.5	19.8%	30.4%
Total	73.2*	100.0%	100%

Note: * Percentages do not include children under the age of 18

Median income	P1989	1996
	\$23,698	\$22,200

Number of vehicles available	1989	1996
Average per household	1.9	2.19

By selected means of transportation to work

	1990	1996
Drove Alone	77.8%	93.6%
In carpools	11.1%	•
Walk	•	1.9%



APPENDIX B

Comparative Table of Responses to key questions by Zip Code

**Do you think there's a need for a county-wide or city-wide
public transportation system in the Grand Valley?**

Count Row % Column%	81501	81502	81503	81504	81505	81506	81520	81521	Row Total
Definitely	49	8	44	38	9	27	25	5	205
	23.9%	23.9%	21.5%	18.5%	4.4%	13.2%	12.2%	2.4%	64.9%
	65.3%	65.3%	64.7%	60.3%	56.3%	75.0%	80.6%	29.4%	
Probably	19	2	11	17	3	6	4	7	69
	27.5%	2.9%	15.9%	24.6%	4.3%	8.7%	5.8%	10.1%	21.8%
	25.3%	20.0%	16.2%	27.0%	18.8%	16.7%	12.9%	41.2%	
Probably Not	4	0	7	2	2	3	0	1	19
	21.1%		36.8%	10.5%	10.5%	15.8%		5.3%	6.0%
	5.3%		10.3%	3.2%	12.5%	8.3%		5.9%	
Definitely Not	0	0	3	3	0	0	1	0	7
			42.9%	42.9%			14.3%		2.2%
			4.4%	4.8%			3.2%		
DK/ Refuse	3	0	3	3	2	0	1	4	16
	18.8%		18.8%	18.8%	12.5%		6.3%	25.0%	5.1%
	4.0%		4.4%	4.8%	12.5%		3.2%	23.5%	
Column Total	75	10	68	63	16	36	31	17	316
	23.7%	3.2%	21.5%	19.9%	5.1%	11.4%	9.8%	5.4%	100%

**Do you feel that some portion of your local taxes should support
public transportation services in the area?**

Count Row % Column%	81501	81502	81503	81504	81505	81506	81520	81521	Row Total
Not Asked Question	0	0	3	3	0	0	1	0	7
			42.9%	42.9%			14.3%		2.2%
			4.4%	4.8%			3.2%		
Yes	56	9	49	40	12	29	20	7	222
	25.2%	4.1%	22.1%	18.0%	5.4%	13.1%	9.0%	3.2%	70.3%
	74.7%	90.0%	72.1%	63.5%	75.0%	80.6%	64.5%	41.2%	
No	8	1	10	11	3	4	6	9	52
	15.4%	1.9%	19.2%	21.2%	5.8%	7.7%	11.5%	17.3%	16.5%
	10.7%	10.0%	14.7%	17.5%	18.8%	11.1%	19.4%	52.9%	
DK/ Refuse	11	0	6	9	1	3	4	1	35
	31.4%		17.1%	25.7%	2.9%	8.6%	11.4%	2.9%	11.1%
	14.7%		8.8%	14.3%	6.3%	8.3%	12.9%	5.9%	
Column Total	75	10	68	63	16	36	31	17	316
	23.7%	3.2%	21.5%	19.9%	5.1%	11.4%	9.8%	5.4%	100%

Results presented earlier in this report show slightly different overall percentages. The percentage of individuals not asked the question was removed from the base for the purpose of calculations in the earlier text.

If public transportation were provided in this area, two possible ways to pay for it would be to increase property taxes by \$20.00 per household per year, or to add 1/2 cent to the sales tax for transit purposes. Which one of these would you prefer?

Count Row % Column%	81501	81502	81503	81504	81505	81506	81520	81521	Row Total
Not Asked	19	1	19	23	4	7	11	10	94
Question	20.2%	1.1%	20.2%	24.5%	4.3%	7.4%	11.7%	10.6%	29.7%
Property Tax	25.3%	10.0%	27.9%	36.5%	25.0%	19.4%	35.5%	58.8%	
	12	4	17	10	5	8	5	1	62
	19.4%	6.5%	27.4%	16.1%	8.1%	12.9%	8.1%	1.6%	19.6%
	16.0%	40.0%	25.0%	15.9%	31.3%	22.2%	16.1%	5.9%	
Sales Tax Increase	29	4	29	25	65	12	12	5	122
	23.8%	3.3%	23.8%	20.5%	4.9%	9.8%	9.8%	4.1%	38.6%
	38.7%	40.0%	42.6%	39.7%	37.5%	33.3%	38.7%	29.4%	
Either/Combine	3	1	2	1	1	2	2	0	12
	25.0%	8.3%	16.7%	8.3%	8.3%	16.7%	16.7%		3.8%
	4.0%	10.0%	2.9%	1.6%	6.3%	5.6%	6.5%		
Neither	7	0	0	3	0	3	1	1	15
	46.7%			20.0%		20.0%	6.7%	6.7%	4.7%
	9.3%			4.8%		8.3%	3.2%	5.9%	
Other	1	0	0	0	0	0	0	0	1
	100%								0.3%
	1.3%								
DK/Refuse	4	0	1	1	0	4	0	0	10
	40.0%		10.0%	10.0%		40.0%			3.2%
	5.3%		1.5%	1.6%		11.1%			
Column Total	75	10	68	63	16	36	31	17	316
	23.7%	3.2%	21.5%	19.9%	5.1%	11.4%	9.8%	5.4%	100%

Note: Results presented earlier in this report show slightly different overall percentages. The percentage of individuals not asked the question was removed from the base for the purpose of calculations in the earlier text.



Would you or anyone in your household use a city-wide public transportation system?

Count Row % Column%	81501	81502	81503	81504	81505	81506	81520	81521	Row Total
Definitely	22	6	16	14	8	14	8	0	88
	25.0%	6.8%	18.2%	15.9%	9.1%	15.9%	9.1%		27.8%
	29.3%	60.0%	23.5%	22.2%	50.0%	38.9%	25.8%		
Probably	34	2	29	26	4	10	16	7	128
	26.6%	1.6%	22.7%	20.3%	3.1%	7.8%	12.5%	5.5%	40.5%
	45.3%	20.0%	42.6%	41.3%	25.0%	27.8%	51.6%	41.2%	
Probably Not	10	2	9	12	3	10	4	5	55
	18.2%	3.6%	16.4%	21.8%	5.5%	18.2%	7.3%	9.1%	17.4%
	13.3%	20.0%	13.2%	19.0%	18.8%	27.8%	12.9%	29.4%	
Definitely Not	8	0	9	11	1	2	3	3	37
	21.6%		24.3%	29.7%	2.7%	5.4%	8.1%	8.1%	11.7%
	10.7%		13.2%	17.5%	6.3%	5.6%	9.7%	17.6%	
Indifferent	1	0	5	0	0	0	0	2	8
	12.5%		62.5%					25.0%	2.5%
	1.3%		7.4%					11.8%	
Column Total	75	10	68	63	16	36	31	17	316
	23.7%	3.2%	21.5%	19.9%	5.1%	11.4%	9.8%	5.4%	100%

**Grand Junction / Mesa County Metropolitan Planning Organization
Transportation Survey**

Do you live in the Grand Valley?Yes _____ No _____

And what is your home zip code? (Circle One)

01 81501
02 81502
03 81503
04 81504
05 81505
06 81506
07 81520
08 81521
09 OTHER _____

1. Do you think there's a need for a county-wide or city-wide public transportation system in the Grand Valley? (Circle One Answer)

01 Definitely 1
02 Probably 2
03 Probably not 3
04 Definitely not 4
05 DON'T KNOW 8

2. Which of the following goals are appropriate for a public transportation system?

01 to reduce vehicle congestion and pollution
02 to provide services in the morning and late afternoon to get people to and from work
03 to provide service for those with no alternative means of transportation
04 to provide service for the elderly and disabled
05 other _____
06 Don't Know



3. Do you feel that some portion of your local taxes should support public transportation services in the area?

01 YES
02 NO
03 DON'T KNOW

3A. If public transportation were provided in this area, two possible ways to pay for it would be to increase property taxes by \$20 per household per year, or to add 1/2 cent to the sales tax for transit purposes. Which one of these would you prefer?

01 PROPERTY TAX 1
02 SALES TAX INCREASE 2
03 EITHER/COMBINATION 3
04 NEITHER 4
05 OTHER 5
06 DON'T KNOW 8

3. Would this public transportation service be best run by the...

01 CITY 1
02 COUNTY 2
03 A NON-PROFIT CORPORATION 3
04 OTHER 4
05 DON'T KNOW 8

3A. Are you aware of the current Elderly and Disabled Transportation Program?

01 YES 1
02 NO 2
03 DON'T KNOW 8

3B. Have you or anyone in your household ever used this program?

01 YES
02 NO 2
03 DON'T KNOW 8



3C. Suppose the Grand Valley had a bus system in place that operated on specific routes every 60 minutes during the weekday and cost 50 cents per one-way trip. Assuming it could take you where you wanted to go, would you or your household member continue to use the program for the elderly and disabled or would you/they take the bus instead?

01 .. Would Continue to use the Elderly and Disabled Program	1
02 Would switch to the Bus Service	2
03 Would Use Both	3
04 Would Use Neither	4
05 DON'T KNOW	8

4. Now I'd like to get some information about you. What is your age? Are you . . .

01	18 - 24	1
02	25 - 34	2
03	35 - 44	3
04	45 - 54	4
05	55 - 60	5
06	60 - 64	6
07	or 65 or older	7

Including yourself, how many people are in your household? _____

Of the people in your household, how many are unable to travel from home alone due to a mobility impairment? _____

How many of the people in the household are under 16? _____

Of the people under 16, how many of these are mobility impaired? _____

Of the people in the household, how many are between 16 and 64? _____

Of the people between 16 and 64, how many are mobility impaired? _____

And of the people in the household, how many are over 65? _____

Of the people over 65, how many are mobility impaired? _____



6. Are you registered to vote in Mesa County?

01 YES 1
02 NO 2

7. How many automobiles, vans, or pickup trucks are available for use in your household?

01 ONE 1
02 TWO 2
03 THREE 3
04 FOUR 4
05 FIVE OR MORE 5
06 NONE 6

8. Do you have a driver's license?

01 YES 1
02 NO 2

9. Were you a regular (at least once a week) user of a transit system in another city in the past five years?

01 YES 1
02 NO 2

9A. Did you consider yourself dependent on transit for transportation?

01 YES 1
02 NO 2

10. Are you currently employed outside the home?

01 YES 1
02 NO 2



10A. What area do you work in?

- 01 GRAND JUNCTION 1
02 CLIFTON 2
03 FRUITA 3
04 OTHER 6

10B. What hours (or shift) do you typically work?

- 01 8 A.M. TO 5 P.M. OR 9 A.M. TO 6 P.M. 1
02 4 P.M. to MIDNIGHT 2
03 MIDNIGHT TO 8 A.M. 3
04 OTHER 4

11. Are you currently a student at a college or university?

If yes, where do you attend school?

- 01 NOT A STUDENT 1
02 MESA STATE COLLEGE 2
03 OTHER 5
04 DON'T KNOW 8

Not including yourself, how many people in your household attend each of these schools as students? _____

How many of these students will use the bus? _____

For what other activities will they use the bus?

- 01 Work 1
02 Shopping 2
03 Recreation 3
04 Social 4
05 Sports 5
06 Medical 6
07 None 7
08 Don't Know 8



How do you usually travel to work?

- 01 Drive yourself 1
02 Have friend or family drive 2
03 Walk 3
04 Other 4

How do you usually travel to school?

- 01 Drive yourself 1
02 Have friend or family drive 2
03 Walk 3
04 Other 4

How do you usually travel for shopping?

- 01 Drive yourself 1
.....
02 Have friend or family drive 2
.....
03 Walk 3
.....
04 Other 4
.....

How do you usually travel for medical care?

- 01 Drive yourself 1
02 Have friend or family drive 2
03 Walk 3
04 Other 4

How do you usually travel to socialize?

- 01 Drive yourself 1
02 Have friend or family drive 2
03 Walk 3
04 Other 4



And would you or anyone in your household use a city-wide public transportation system?

- 01 DEFINITELY 1
- 02 PROBABLY 2
- 03 PROBABLY NOT 3
- 04 DEFINITELY NOT 4
- 05 INDIFFERENT 9

13A. If a bus system were started in Grand Valley, but it was too far from your home to walk to it, how likely are you to move, to be closer to a bus route?

- 01 VERY LIKELY 1
- 02 SOMEWHAT LIKELY 2
- 03 SOMEWHAT UNLIKELY 3
- 04 VERY UNLIKELY 4
- 05 INDIFFERENT 9

13B. If a bus system were started in Grand Valley and your current job was not on or near the route, how likely would you be to try to find a job on a bus route so that you could use the bus to get to and from work?

- 01 VERY LIKELY 1
- 02 SOMEWHAT LIKELY 2
- 03 SOMEWHAT UNLIKELY 3
- 04 VERY UNLIKELY 4
- 05 INDIFFERENT 9

Suppose a bus system existed that ran every 60 minutes from 6:00 a.m. to 6:00 p.m., cost \$1.00 to ride one way and a route was within four blocks of your house and your destination. Would this bus service be convenient for you?

- 01 Definitely 1
- 02 Probably 2
- 03 Probably not 3
- 04 or Definitely not 4
- 05 INDIFFERENT 9



14A. And if it ran every 30 minutes instead of every hour. Would the bus service be convenient to you?

01 Definitely 1
02 Probably 2
03 Probably not 3
04 or Definitely not 4
05 INDIFFERENT 9

Suppose a bus system existed that ran every 60 minutes from 6:00 am to 6:00 pm, cost \$1.00 to ride one way and a route was within 3 blocks of your house and your destination. Would this bus service be convenient for you?

01 Definitely 1
02 Probably 2
03 Probably not 3
04 Or definitely not 4
05 Indifferent 9

15A. And if it was within 2 blocks. Would the bus service be convenient to you?

01 Definitely 1
02 Probably 2
03 Probably not 3
04 or Definitely not 4
05 INDIFFERENT 9

16. Suppose a bus system existed that ran every 60 minutes from 6:00 a.m. to 6:00 p.m., cost \$0.75 to ride one way and a route was within four blocks of your house and your destination. Would this bus service be affordable for you?

01 Definitely 1
02 Probably 2
03 Probably not 3
04 or Definitely not 4
05 INDIFFERENT 9



16A. And if it cost \$0.50 instead of \$0.75. Would the bus service be affordable to you?

01	.....	Definitely	1
02	.....	Probably	2
03	.....	Probably not	3
04	.....	or Definitely not	4
05	.....	INDIFFERENT	9

17. What other information would you need to have before you would use the bus service?

01	.....	Schedules	1
02	.....	Routes	2
03	.....	Bus Stop Location	3
04	.....	Fares	7
05	.....	Fare Discount	5
06	.....	Other	6
07	.....	Don't Know	8X

18A. What days of the week would you ride the bus? (Multiple Answers Accepted)

01	.....	Weekdays (Monday - Friday)	1
02	.....	Saturdays	2
03	.....	Sundays	3
04	.....	DON'T KNOW	8

18B. Where would you go on the bus? Would you use it to go to ...

01	.....	Work	01
02	.....	Mesa Mall Shopping	02
03	.....	North Avenue Shopping	03
04	.....	Downtown Shopping	04
05	.....	Mesa State College	05
06	.....	Elementary School	06
07	.....	Middle School	07
08	.....	High School	08
09	.....	Other School	09
10	.....	Doctor/Dentist	10
11	.....	Visiting/Recreation	11



12	.....	Ski Area	12
13	.....	Meal/Entertainment	13
14	.....	Personal Business	14
15	.....	Sports	15
16	.....	Other	1

18C. What times of the day would you ride the bus? (Multiple Answers Accepted)

01	.....	5:00 AM - 5:59 AM	1
02	.....	6:00 AM - 6:59 AM	2
03	.....	7:00 AM - 7:59 AM	3
04	.....	8:00 AM - 8:59 AM	4
05	.....	9:00 AM - 9:59 AM	5
06	.....	10:00 AM - 10:59 AM	6
07	.....	11:00 AM - 11:59 AM	7
08	.....	12:00 PM - 12:59 PM	8
09	.....	1:00 PM - 1:59 PM	9
10	.....	2:00 PM - 2:59 PM	10
11	.....	3:00 PM - 3:59 PM	11
12	.....	4:00 PM - 4:59 PM	12
13	.....	5:00 PM - 5:59 PM	13
14	.....	6:00 PM - 6:59 PM	14
15	.....	7:00 PM - 7:59 PM	15
16	.....	8:00 PM - 8:59 PM	16
17	.....	9:00 PM - 9:59 PM	17
18	.....	10:00 PM - 10:59 PM	18
19	.....	11:00 PM - 4:59 AM	19
20	.....	Don't Know	88

18D. Assume a round trip starts at your home, goes somewhere, then returns to your home. How many roundtrips per week would you make on the bus?

01	.....	1 - 5	1
02	.....	6 - 10	2
03	.....	11 - 15	3
04	.....	16 - 20	4
05	.....	21 or more	5
06	.....	Don't know	8



19. My last question is for statistical purposes only. What is your annual household income? Is it . . .

01	..... Under \$10,000	1
02	..... \$10,000 to under \$15,000	2
03	..... \$15,000 to under \$20,000	3
04	..... \$20,000 to under \$30,000	4
05	..... \$30,000 to under \$40,000	5
06	..... \$40,000 to under \$50,000	6
07	..... \$50,000 to under \$75,000	7
08	..... or over \$75,000	8

Thank you very much for sharing your opinions with us. Have a nice day/evening.



Appendix B: The Economic Impact of Public Transit in Mesa County, Colorado

Introduction

Although Mesa County has an urbanized area with a population that currently exceeds 100,000 persons, it does not currently have a fixed route transit system. There are a number of agencies that provide transportation in Mesa County, but for this report we will limit our focus to the two largest transit agencies that receive public funds: MesAbility, and Mesa Development Services. These services are a major asset for all of the citizens of Mesa County. Not only do they provide transportation to over 150,000 people annually, but they also contribute to local job and income creation, and augment the revenues of state and local governments. The purpose of this report is to document that even without a fixed route system open to the general public, public transit yields important benefits in Mesa County, including benefits for economic growth and performance. These can be classified under two headings:

- General regional economic benefits, and
- Benefits stemming from the operation and maintenance of the two transit agencies.

The Mesa County Economy, General Economic Background¹

Mesa County is one of 63 counties in Colorado: Its 1994 population of 103,600 ranked it 10th in the state. Mesa county's per capita personal income in 1994 was \$18,187, ranking it 37th in the State, 18.5% below the State average of \$22,329.

¹ Information in this section was obtained from the U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System (REIS) on CD-ROM.



Earnings (wages, salaries, and proprietors' income) in Mesa County increased from 1984 to 1994 at an average annual growth rate of 5.5%. Measured as percent of total earnings, Mesa County's largest industries in 1994 were services, 29.1%; retail trade, 14.6%; and state and local government, 12.8%. Of the industries that accounted for at least 5% of earnings, the slowest growing from 1984 to 1994 was mining (5.0% of earnings in 1994), which decreased at an average annual rate of 1.7%. The fastest growing was services, which increased at an average annual rate of 8.2%.

General Regional Economic Benefits of Transit

The focus of discussion on public transportation in Mesa County is most often directed toward the personal benefits of increased mobility for the elderly and persons with disabilities. These include the possibility of more cost-effective shopping, reduced social isolation through opportunities for social interaction, as well as transportation to medical appointments and congregate meal sites. These personal benefits to the people served translate into wider social benefits. The ability to stay in one's own home rather than moving to a nursing home and opportunities for preventive health care rather than emergency care save money and benefit the entire community.

These personal and social benefits of the current demand responsive transportation services also have substantial benefits for the wider economy. These transit services have a "ripple effect" in creating jobs and incomes in Mesa County by increasing the effectiveness of its residents as both consumers and suppliers of labor and other business services. Though difficult to quantify, these factors may be the largest of the job and income effects of public transit. They would be even greater if there were general public transit in the county.

General public transit increases the access of local business and industry to the human resources of the local labor market. This lowers costs, and increases competitiveness and efficiency. The net effect would be job and income creation, and a stronger more diversified Mesa County economy. Diverse economies are better able to weather downturns, and attract new industry and economic development opportunities. Although even greater benefits would flow from



general public transit, the current transit providers do have an economic impact in and of themselves. We will turn to these next.

The Impact on Mesa County of Public Transit Spending

We estimated public transit's job and income impacts using an economic model of Mesa County developed through the IMPLAN econometric input/output model. This model measures the direct, indirect and induced economic effects of investment in any given industry. The regional input-output model is the standard approach for estimating indirect effects. We describe this model and how it functions in greater detail in the Methodology section that follows.

Public transit directly provides 33 full time equivalent jobs in Mesa County. These are employees of MesAbility Transit, Mesa Developmental Services, and employees of several contracted public transit service providers. In addition, through the action of an economic multiplier effect, public transit creates an additional 13 jobs in other "linked" businesses and industries. Adding the direct and indirect together, public transit in Mesa County creates 46 jobs.

A shut down of public transit would result in 46 newly unemployed workers in Mesa County, and public transit can thus be credited with an amount of avoided unemployment payments. Using our economic model of Mesa County, and figures obtained from the Colorado Department of Labor, we estimate that public transit in Mesa County results in avoided unemployment benefits of over \$109,000 annually.

Public transit in Mesa County (MesAbility and Mesa Developmental Services) has overall annual operating and capital expenditures of approximately \$990,000. Through the action of an economic multiplier, these expenditures result in overall Mesa County business sales of nearly \$1,730,000.

The sales effect mirrors a maze of income generating economic activities. Beyond the sales impact, public transit creates incomes in Mesa County amounting to approximately \$960,000 annually. Public transit results in increased Mesa County property values of over \$2.7 million. Income generation in the private sector



means revenue generation in the various layers of state and local government. Our economic model of Mesa County indicates a variety of public transit tax-generating effects including income, sales, and property taxes. All told, public transit in Mesa County is annually responsible for state and local tax creation of over \$66,000.

The following two tables summarize the economic impact of the current transit services in Mesa County.

Summary of Economic Impact of Investment in Public Transit

Economic Category	Economic Effect
Transit Investment	\$989,937
Incomes Generated	\$980,937
Unemployment Avoided	\$109,398
Business Sales	\$1,729,706
Local and State Taxes Generated	\$66,249
Regional Property Values	\$2,704,907
Regional Employment (Jobs)	44.6

Summary Tax Revenue Effects of Public Transit in Mesa County

Income Tax	\$24,696
Sales and Use Taxes	\$13,082
Property Tax	\$28,471
TOTAL	\$66,249



Documentation and Methodology

The analysis of public transportation's direct spending impact on Mesa County utilizes economic impact multipliers generated through an IMPLAN input/output model constructed for the county. The IMPLAN modeling system was originally produced by the U.S. Forest Service, and has become the most widely used approach for assessing economic impacts. IMPLAN is currently distributed and maintained by Minnesota IMPLAN Group, Inc., Stillwater, Minnesota. Regional economists generally consider the IMPLAN modeling system the most cost-effective system available.

We utilize IMPLAN multipliers, and auxiliary information, to estimate the impact of public transportation on income, jobs, taxes, and property values in Mesa County. Input/Output models such as IMPLAN exhibit the exchange of goods and services among the industries of a regional economy. They describe the inputs necessary to produce the outputs of the various sectors, and provide an analysis of the role of alternative economic activities, such as the expenditures of public transportation systems, on the economy under study, in this case the economy of Mesa County, Colorado.

Our analysis relies on a variety of published sources, and 1994 is the latest year for which complete data are generally available. Accordingly, unless otherwise stated, all figures in the report below (including IMPLAN multipliers) refer to year 1994.

IMPLAN Multipliers for Public Transit in Mesa County

Input/output multipliers distinguish economic effects according to three categories: direct, indirect, and induced.

- Direct Effects are those in the immediate industry (e.g., jobs and incomes in public transit itself).
- Indirect Effects are those in supporting industries (e.g., jobs and



incomes in industries that supply inputs to public transit).

- Induced Effects result from the household spending stimulated by the direct and indirect effects.

Multipliers are based on the interconnectedness of the regional economy, whereby dollars spent on inputs by one firm are received as revenues by other firms, and then spent on inputs and received by still other firms, and so on. A change in the sales of one firm, the initial (direct) effect, sets in motion a sequence of other effects (the indirect and induced). The analogy of tossing a stone into a pond is often made. The first ripple is the initial (direct) effect, succeeding ripples are the multiples of that effect. The total effect, indicated by the input/output multiplier, is the sum of the direct, indirect, and induced effects.

We constructed an IMPLAN model for Mesa County, Colorado, and utilized multipliers for the IMPLAN sector "Local Interurban Passenger Transportation" to assess the impact of public transit. We use a variety of local interurban passenger transportation input/output multipliers to estimate the role of public transit in the Mesa County economy. All multipliers are so-called IMPLAN "Type II."²

Total Output Multipliers: IMPLAN total output multipliers for the local transportation sector show sales in all industries (direct, indirect, and induced) per dollar of public transit expenditures in Mesa County.

IMPLAN's Mesa County local transportation sector Total Sales Multiplier = 1.763324

Personal Income Multipliers: Personal income equals wages, salaries and proprietor's income. IMPLAN personal income multipliers for the local transportation sector show total personal income (direct, indirect, and induced) per dollar of public transit's Mesa County expenditures.

² For additional detail on IMPLAN multiplier definitions see Minnesota IMPLAN Group, Inc. 1996. *IMPLAN Pro: User's Guide, Analysis Guide, Data Guide*. Minnesota IMPLAN Group, Inc.: Stillwater, Minnesota.

IMPLAN's Mesa County local transportation sector Personal Income Multiplier = 0.72545776.

Other Property Income Multipliers: "Other property income" consists of payments of interest, rents, royalties, dividends, and profits. The "other property income multiplier" for the local transportation sector captures the change (direct, indirect, and induced) in other property income per dollar of public transit expenditures in Mesa County.

IMPLAN's Mesa County local transportation sector Other Property Income Multiplier = 0.25286411.

Total Income Multipliers: What might be termed a "total income multiplier" is formed as the sum of the IMPLAN personal and other property income multipliers. The total income multiplier calculates the effect on total income (employee compensation, proprietary income, and other property income) generated from one dollar of transit expenditures.

IMPLAN's Mesa County local transportation sector Total Income Multiplier = .9783218. For every \$100,000 in output of transit, \$97,832 goes to income.

Employment Multipliers: These multipliers estimate the effects on employment of transit expenditures. IMPLAN employment multipliers for the local transportation sector show the total jobs (direct, indirect, and induced) per million dollars of public transit expenditures.

IMPLAN's Mesa County local transportation sector Employment Multiplier is 45.439356, and is derived as follows:

Direct	32.70383
Indirect	4.740318
Induced	7.995208
Total	45.439356

According to the employment multipliers, a million dollars of public transit expenditures results in approximately thirty-three direct transit jobs, five indirect



transit-related jobs, and eight induced jobs in the larger economy.

Public Transit Direct Expenditures

Public transit in Mesa County has annual operating expenditures as follows:

MesAbility Transit (Operating Expenditures)	\$536,253
MesAbility Transit (Capital Expenditures)	\$118,684
Mesa Developmental Services	\$326,000
Total	\$980,937

The above capital expenditures reflects an average annual capital expense. While capital expenditures often send money out of the region that expends those funds, they are included here in order to permit comparisons that capture state wide multiplier effects.

Total Sales Effect of Public Transit in Mesa County

One measure of the effect of public transit on Mesa County business is the impact on total sales. We compute this using the total output multiplier and our Mesa County public transit expenditure estimate of \$980,937. The calculation appears in Table 1.

Table 1
Total Sales in Mesa County Created by Public Transit

Public Transit Expenditures	IMPLAN Total Output Multiplier	Total Transit Linked Sales
\$980,937	1.763324	\$1,729,710



Employment Effects

In this section we compute the jobs in Mesa County attributable to the expenditures of public transit. MesAbility Transit and Mesa Developmental Services employ a number of full and part time persons, and a number of additional persons are employed through significant subcontracting activities. Given the difficulties and ambiguity of arriving at a direct employment measure, we chose to apply the total public transit expenditure figure from Table 1 to the various IMPLAN employment multipliers. The calculations appear in Table 2.

Table 2
Direct Jobs in Public Transit in Mesa County³

Impact Round	IMPLAN Employment Multiplier	Transit Linked Employment
Direct	32.704	32.1
Indirect	4.740	4.6
Induced	7.995	7.8
Total	45.439	44.5

Avoided Unemployment Compensation Payments

Public transit in Mesa County has an employment effect beyond job creation. If public transit (MesAbility and Mesa Development Services) were to shut down, the newly unemployed workers would file for unemployment benefits. Thus, public transit can be credited with an amount of avoided unemployment compensation. IMPLAN is instrumental in providing an estimate of the

³ IMPLAN employment multipliers show jobs per \$1 million of direct expenditures. Multiplier effects shown in table 2 are based on Mesa County transit expenditures of \$980,937.



unemployment compensation payments avoided as a result of the jobs created by public transit. To estimate this, we multiply the jobs created by public transit (from table 2) by the per-worker average weekly compensation payment, and this in turn by the average duration of unemployment benefits.

According to the Colorado Job Service, Department of Labor, unemployment benefit payments are currently (1994) averaging \$191.63 per week, and the average duration of unemployment benefits is 12.8 weeks. Using these figures, Table 3 shows our estimate of the unemployment compensation payments avoided as a result of the jobs created by public transit in Mesa County.

Table 3
Benefit of Public Transit in Avoided
Unemployment Compensation

Total Transit Linked Employment	Weekly Unemployment Benefit	Avg. Weekly Duration Unemployment	Avoided Unemployment Expenditures
44.5	\$191.63	12.8	\$109,398

Through jobs created by public transit, the local Job Service in a given year avoids \$109,398 in unemployment benefit payments.

Income Impacts

In this section we compute income in Mesa County (employee compensation, proprietors' income, and property income) attributable to the expenditures of public transit. As documented earlier, we estimate annual Mesa County expenditures by public transit at \$980,937.

Income effects are estimated using the IMPLAN total income multiplier for Mesa County. The total income impact calculation is shown in Table 4.

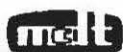


Table 4
Total Income in Mesa County Created by
Expenditures of Public Transit

Transit Expenditures	IMPLAN Total Income Multiplier	Total Transit-Linked Income
\$980,937	.97832	\$959,670

Property Value Impacts

In this section we compute the impact of public transit expenditures on Mesa County property values. The IMPLAN model provides an “other property income multiplier.” This multiplier tracks interest, rents, royalties, dividends, and profits. We can describe these collectively as return on investment income.

IMPLAN reports annual income flows. An income stream measuring a return to property is said to be “capitalized” by computing its present discounted value. Capital value is property value, and we estimate the property value created by public transit by capitalizing the income stream indicated by the IMPLAN “other property income” multiplier.⁴ The “discount rate” in our capitalizing formula should be indicative of the general “safe” return on business investments. The “prime rate of interest” is commonly used for this purpose. The prime rate over the decade from 1986 to 1996 averaged 9.17% per year.⁵ The calculation of transit-linked property value is shown in Table 5.

⁴ If $r\%$ is the return on capital investments, the capital value of an annual income stream F is computed as follows:

$$C = F/r\%$$

where C equals the present capital value of the annual income stream F .

⁵ U.S. Federal Reserve, Board of Governors’ web site:
www.bog.frb.fed.us/releases/h15/data/a/prime.txt.



Table 5
Mesa County Property Values Attributable to
Expenditures of Public Transit

Transit Expenditures	IMPLAN Property Income Multiplier	Total Linked Property Income	Transit Linked Property Values
\$980,937	.25286	\$248,040	\$2,704,907

Tax Impacts

In this section we determine the impact of public transit expenditures on taxes generated in Mesa County. We examine income, sales, and property taxes.

State Income Taxes

To estimate state income tax payments from income generated in public transit, we obtained a figure on total income tax collections in Colorado in 1994, and divided this by total income (i.e., total personal income) in Colorado for that year. We then applied this ratio to income generated by Mesa County public transit as indicated in Table 6.

Table 6
Colorado Income Tax Revenues Generated by Expenditures
of Public Transit in Mesa County

Net Income Tax Collections(1) (\$millions)	Total Colorado Personal Income(2) (\$millions)	Transit Linked Income (see table 4)	Transit-Linked Income Tax Collections
\$2,100.6	\$81,628.4	\$959,670	\$24,696

Sources: (1) Colorado Department of Revenue *1996 Annual Report*.

(2) U.S. Department of Commerce, Regional Economic Information System (REIS CD-ROM, 1995).



Sales and Use Taxes

Public transit in Mesa County generates income, and a portion of this is spent on items subject to sales and use taxes. We estimated public transit linked sales taxes and use taxes by computing the statewide ratio of sales and use taxes to personal income, and applying this ratio to public transit-generated income. The calculation appears in the following table.

Table 7
Colorado Sales and Use Tax Collections Generated by the
Expenditures of Mesa County Public Transit

Total Sales and Use Tax Collections(1) (\$millions)	Total Colorado Personal Income(2) (\$millions)	Transit Linked Income (see table 4)	Transit-Linked Sales and Use Tax Collections
\$1,112.7	\$81,628.4	\$969,670	\$13,082

Sources:(1) Colorado Department of Revenue *1996 Annual Report*.

(2) U.S. Department of Commerce, Regional Economic Information System (REIS CD-ROM, 1995).

Property Taxes

We have already discussed the impact of public transit in generating property income (see Table 5). We estimate property tax receipts that result from public transit expenditures in much the same way we estimated income, sales and use tax receipts. We compute the statewide ratio of property tax collections to personal income, and apply this ratio to public transit generated income. The calculation appears in Table 8.

Table 8
Colorado Property Tax Collections Generated
by the Expenditures of Mesa County Public Transit

Total Property Tax Collections(1) (\$millions)	Total Colorado Personal Income(2) (\$millions)	Transit Linked Income (see table 4)	Transit-Linked Property Tax Collections
\$2,421.7	\$81,628.4	\$959,670	\$28,471

Sources: (1) Steven Goering, Colorado Department of Revenue, personal communication.

(2) U.S. Department of Commerce, Regional Economic Information System (REIS CD-ROM, 1995).

Tax Effects Summarized

Table 9 simply summarizes the tax effects of public transit in Mesa County from our several earlier tables.

Table 9
Summary Tax Revenue Effects of
Public Transit in Mesa County

Income Tax	\$24,696
Sales and Use Taxes	\$13,082
Property Tax	\$28,471
TOTAL	\$66,249

Summary of Regional Economic Effects

Increased employment incomes, avoided unemployment expenditures, increased business revenues, and increased tax revenues are measurable economic benefits from investment in public transit. As we can see in Table 10, taking these four factors together, the \$980,937 expended on MesAbility and Mesa Developmental Services yields \$2,865,023 in economic benefits. This means that for every



additional dollar invested in public transit, there would be a \$2.89 economic return for the local economy.

Table 10
Summary of Economic Impact of Investment in Public Transit

Economic Category	Economic Effect
Incomes Generated	\$980,937
Unemployment Avoided	\$109,398
Business Sales	\$1,729,706
Local and State Taxes Generated	\$66,249
Total Economic Impact	\$2,865,023
Transit Investment	\$989,937
Economic Impact/Investment = Return	\$2,865,023 / \$989,937 = \$2.89

Furthermore, since Mesa County has available carryover funds from the Federal Transit Administration, local investment takes the form of a local match that can bring in an equivalent amount of Federal funding, each additional dollar of local investment in transit operations generates \$5.78 in economic benefits for the region.



Appendix C: Mesa County Potential Transit Trip Generators

Generator	Address	Phone	Size
Academy of Beauty Culture	2992 North Ave.	245-5570	
Aladdin Arabian Vega Apts.	430 Chipeta	243-9520	
Albertson's Food Center	1830 N 12	241-8536	80 employees
Alpine Bank	225 N 5 Suite B	243-5600	
American Cancer Society	2754 Compass Dr. #328	242-9593	
American Red Cross	506 Gunnison Ave.	242-4851	
Ametek/Dixson	287 27 Road	242-8863	300 employees
Amtrak	337 S. 1st St.	241-2733	
Assoc. for Retarded Citizens	496 28-1/2 Rd.	245-5775	
Atrium	3260 N. 12th St.	256-0006	142 units
Belford Apts.	1029 Belford Ave.	245-3939	
Bethphage Mission West	2808 North Ave.	245-0519	
Bookcliff Christian School	2702 Patterson Road	243-2999	114 students
Bookcliff Manor	2897 Orchard	245-0788	27 units
Catholic Outreach	240 White Ave.	241-3658	
Catholic Social Service	101 S. 3rd Ste. 275	241-8475	
Center for Independence	1600 Ute Ave. Ste. 100	241-0315	25 employees
City of Grand Junction	250 N. Fifth St.	244-1501	435 employees
City Markets, Inc.	105 W. Colorado Ave.	241-0750	1246 employees



Generator	Address	Phone	Size
City Market	2830 North Ave.	243-5099	
City Market	2770 Hwy. 50 S.	245-1411	
City Market	1909 N. 1st	243-0842	
City Market	200 Rood Ave.	241-2585	
Clifton Townhouses	3222 D ½ Rd. Clifton	434-3683	
Colorado Christian University	715 Horizon Dr. #401	242-1811	
Co.Inter. Ed.& Training Inst.	1460 N. 12th	245-7102	
Co. School of Dental Tech.	751 Horizon Ct.	242-3545	
Colo.State Div. of Youth Serv.	380 28 Road	242-1521	
Colo.St.Migrant Hlth.Prog.	721 Peach Ave. Palisade	464-5862	
Colorado State Offices (Health,Rehab.&Emp.)	222 S. 6th St.	248-7010	
Colo. W. Mental Health Ctr.	740 Gunnison	245-3270	60 employees
Community Hospital	2021 N 12th	242-0920	325 employees
Coors Porcelain	2449 River Road	245-4000	360 employees
Cornerstone Christian School	309 F Road	242-9078	121 students
Crossroads Park Apts.	2763 Compass Dr.	241-6730	
Dinosaur Valley	362 Main Street	243-DINO	
Family Health West	228 N. Cherry, Fruita	858-9871	150 employees
Family Life Office	253 White Ave.	241-8475	
Foresight Village Apts.	25 ½ Rd.	242-8450	
Garden Village Apts.	2601 Belford Ave.	242-3262	91 subsidized units
Genesis Christian School	615 I-70 Business Loop	434-0205	37 students



Generator	Address	Phone	Size
Goodwill		242-4130	
Grand Avenue Apts.	1940 Grand Ave.	241-3554	
Grand Junction Regional Ctr.	2800 D Road	245-2100	520 employees
Grand Junc. Women's Clinic	740 Horizon Ct.	241-1943	
Grand Manor Apts.	2828 Orchard Ave.	245-8349	
Grand Mesa Apts.	150 S. Sycamore, Fruita	858-9202	
Grand Valley National Bank	925 North 7th St.	241-4400	
Grand Valley Rural Power	2727 Grand Ave.	242-0040	
Grand View Apts.	1501 N. 1st St.	256-9904	60 units
Grand Villa Apts.	1501 Patterson	241-9706	approx.50 units
Greenhouse Apts.	935 Northern Way	241-8489	
Greyhound Bus Lines	230 S. 5th	242-6012	
Heather Ridge Apts.	1180 Lowell Ct.	241-2329	
Heritage Apts.	3782 Heritage Ln.	464-5222	23 units
Hilltop Special Serv. Div.	1405 Wellington Ave.	242-6725	
Holy Family School	800 Bookcliff Ave.	242-6168	423 students
Housing Authority	805 Main	245-0388	
Independence Village	225 N. Coulson	858-2174	75 subsid. units
Indiv. & Family Counseling	1425 N. 5th St.	243-4414	
Intermountain Adventist Acad.	1704 North 8th Street	242-7603	84 students
Intermountain Events Center	2798 B Road	242-9244	
Job Corps Recruitment	326 Main	245-0197	
K Mart	2809 North Ave.	243-6250	



Generator	Address	Phone	Size
Life Academy	636 29 Road	242-9431	44 students
Lincoln Park	12th St. & Gunnison	244-1548	
Lutheran Church School	840 North 11th Street	245-2838	108 students
Marillac Clinic	600 Center Av. Bldg.#3	243-7803	
Marillac Dental Clinic	3198 F Rd. Ste. 107	434-6987	
Maurice Arms Apts.	1800 Main	245-3815	
Mesa County	750 Main	244-1601	424 employees
Mesa Co. Vehicle Reg.	619 Main St.	244-1664	
Mesa County Courthouse	544 Rood Ave.	244-1664	
Mesa County Health Dept.	715 4 Ave.	241-0315	
Mesa County Public Library	530 Grand Ave.	243-4442	
Mesa County Social Services	2952 North Ave.	241-8480	150 employees
Mesa Co. Valley Sch. Dist. 51	2115 Grand Ave.	245-2422	
Appleton Elementary	2358 H Road	242-4727	261 students
Broadway Elementary	2248 Broadway	242-7237	266 students
Chatfield Elementary	3188 D ½ Road	434-7387	608 students
Clifton Elementary	3276 F Road	434-7112	725 students
Columbine Elementary	624 North 9th	243-5340	285 students
Columbus Elementary	2660 Unaweepe	243-0028	350 students
Fruitvale Elementary	585 30 Road	242-8085	411 students
Lincoln O M Elementary	2888 B ½ Road	242-6383	492 students
Lincoln Park Elementary	600 North 14th	245-2836	251 students
Loma Elementary	1360 13 Road	858-7048	288 students



Generator	Address	Phone	Size
Mesa View Elementary	2967 B Road	241-3081	691 students
Nisley Elementary	543 28 3/4 Road	243-3686	466 students
Orchard Ave. Elementary	1800 Orchard Ave.	242-6705	364 students
Pomona Elementary	588 25 1/2 Road	242-2588	305 students
Scenic Elementary	451 West Scenic	242-5727	281 students
Shelley Elementary	353 North Mesa	858-7062	642 students
Taylor Elementary	689 Brentwood Drive	464-7595	567 students
Thunder Mountain Elementary	3036 F 1/2 Road	434-0979	662 students
Tope Elementary	2220 North 7th	242-0433	550 students
Wingate Elementary	334 South Camp Road	245-0746	481 students
Bookcliff Middle School	2935 Orchard Ave.	243-6350	686 students
East Middle School	830 Gunnison Ave.	242-0512	418 students
Fruita Middle School	239 North Maple	858-3621	615 students
Mt. Garfield Middle School	3475 Front Street	464-0533	1,048 students
Orchard Mesa Middle School	2736 C Road	242-5563	598 students
Redlands Middle School	2200 Broadway	245-6084	641 students
West Middle School	123 West Orchard Ave.	243-9040	541 students
Central High School	3130 East 1/2 Road	434-7311	1,367 students
Fruita Monument High School	1815 J Road	858-3624	1,363 students
Grand Junction High School	1400 North 5th Street	242-7496	1,682 students
Palisade High School	3679 G Road	464-5937	981 students
Career Center	2935 North Avenue	243-3142	
R5 High School	310 North 7th	242-4350	306 students



Generator	Address	Phone	Size
Mesa Developmental Services	950 Grand Ave.	243-3702	175 employees
Mesa State College		248-1020	400 employees
Mesa Mall	2430 Hwy 6 & 50	242-0008	
Mesa View Adult Foster Home	2320 Monument Rd.	242-3862	14 units
Mesa View Retirement Res.	601 Horizon	241-0772	102 units
Midtown Apts.	1030 Teller Ave.	242-2763	
MJM Institute of Cosmetology	1048 Independent Ave.	241-9060	
Monterey Park Apts.	999 Bookcliff	242-6682	186 subsid. units
Mt. Garfield Retirement Home	3291 Lombardy Ln.	434-8919	30 units
Museum of Western Colorado	4th and Ute Streets	242-0971	
Nellie Bechtel Gardens	3032 N. 15	245-1712	96 units
New Horizons Christ. School	641 Horizon Drive	243-2485	153 students
Northwood Apts.	3505 N. 12	243-1676	
Norwest Bank-Downtown	359 Main St.	243-1611	
Norwest Bank	2808 North Ave.	242-8822	
Older American Center	550 Ouray Ave.	243-7408	
Orchard Mesa Pool	2736 Unaweep Ave.	244-1485	
Peachtree Adult Foster Home	3450 F Rd., Clifton	434-7062	31 units
Pear Park Baptist School	3102 E Road	434-4113	55 students
Pilgrim Home	261 Hall	241-9358	5 units
Public Service Co. of Colorado	319 Colorado Ave.	800-772-7858	105 employees
Raquet Club Apts.	2915 Orchard Ave.	245-6889	
Ratekin Towers	875 Main	245-0388	107 subsid. units



Generator	Address	Phone	Size
Rescue Mission	550 South Ave.	245-5555	
Resource Center Inc.	1129 Colorado Ave.	243-0190	
RUST Geothech Inc.	2597 B3/4 Road	248-6400	606 employees
Seventh Day Adv. Soc. Serv.	2554 F Rd.	242-2277	
St. Mary's Hospital	2635 North 7th Street	244-2273	1681 employees
St. Mary's Psychiatric Clinic	2530 N. 8 Ste. 102	241-2995	
St. Mary's Rehab. Clinic	1100 Patterson Rd.	244-7645	
Sundance Properties	1460 North Ave.	243-2308	
Sunrise East	498 32 Rd.	434-4342	6 units
TCI Cable Television	2502 Foresight Cir.	245-8750	
Technical Trades Institute	772 Horizon Dr.	245-8101	
The Oaks	805 W. Ottley, Fruita	858-9479	100 units
The Resource Center	1003 Main	241-0324	
The Willows	243 N. Cherry, Fruita	858-1059	25 units
Town North Apts.	1140 Walnut Ave.	243-7477	
Two Rivers Convention Center	159 Main	245-0031	
United Way	422 White Ave. Ste.337	243-5364	
U.S. Postal Service	241 North 4th St.	242-0731	
Ute Water Conservancy Dist.	560 25 Road	242-7491	
UTEC (Tech. Ed.)	2508 Blichmann Ave.	248-1999	
Veterans Hospital	2121 North Ave.	242-0731	344 employees
Villa San Marcos	517 28 ½ Rd.	243-6535	
Villa West Apt.	406 22 St.	245-3939	



Generator	Address	Phone	Size
Wal-Mart	2881 North Ave.	241-6652	210 employees
Walker Field Airport	2828 Walker Field Dr.	244-9100	
Walnut Park Apts.	2236 N. 17th St.	245-5034	78 subsid. units
Western Colorado AIDS Proj.	812 Rood Ave.	243-2437	

