

# **CHAPTER 1: EXISTING TRANSIT SERVICE IN MANCHESTER**

This chapter discusses both public and private transit services currently provided in Manchester. The Manchester Transit Authority provides mass transit service within the urban area. The MTA also offers fixed-route, paratransit, charter service, and pupil transportation for the Manchester School Department.

Additional local transportation is provided by private, not-for-profit, and public agencies; there are also several private companies that provide taxi and inter-city bus service.

## **MTA Service**

### **Organization**

The Manchester Transit Authority was established by the City of Manchester on May 1, 1973 as a public non-profit agency designed to provide mass transit service for the community. Additionally, the MTA provides pupil transportation for the Manchester School Department. The mass transit and school transportation funding, operations, and vehicles, are kept completely separate. The Authority is governed by a five-member Board of Commissioners appointed by the Mayor and Board of Aldermen. A Chairman and Vice-Chairman are elected from the membership.

Since August 1982, the Board of Commissioners has hired its own general manager. First Transit has managed the MTA's operations since January 2002. Technical support services are provided by the Southern New Hampshire Planning Commission.

The MTA has three major departments. The Operations Department is charged with the responsibility of daily operations, which includes driver assignments, vehicle scheduling, and dispatching. The Maintenance Department plans and implements comprehensive programs for the maintenance of vehicles, equipment, and facilities. The Assistant Director oversees both operations and maintenance. The Administrative Department plans, directs, and performs the fiscal and administrative activities of the agency. The current employee roster includes 27 full-time drivers, 77 part-time school bus drivers, 8 maintenance workers, and 9 clerical and supervisory personnel. Two employees are on Long Term Disability. The MTA's organizational structure is outlined in Figure 1.

## **Fixed-Route Service**

The existing MTA fixed-route system (see Figure 2) consists of thirteen (13) routes that provide scheduled service Monday through Friday to the population of Manchester (population 107,006, 2000 U.S. Census) as well as to limited portions of surrounding communities. Saturday service is provided on ten (10) of these routes, while no Sunday service is provided. Hours of operation on weekdays are between 5:25 a.m. and 6:55 p.m., while on Saturdays they are reduced slightly to between 7:30 a.m. and 6:00 p.m.

Comprehensive service is provided to the central business district, and routes extend outwards to serve more remote areas of the city. The fixed-route system is limited to the boundaries of the City of Manchester, with the exception of six routes. Following is a brief description of the MTA's service to surrounding towns.

### **Bedford**

The Bedford Mall route extends approximately 1.5 miles into the adjacent town of Bedford, serving commercial activities. The CCT route, while infrequent, extends approximately 4 miles into Bedford.

### **Goffstown**

The Pinard/Bremer and Gossler/St. Anselm routes extend 0.75 miles into Goffstown, serving St. Anselm, a local college.

### **Londonderry**

The Airport route extends approximately one mile into Londonderry, serving the Manchester Airport and immediate areas.

### **Hooksett**

The D.W. Highway/River Road route extends into Hooksett in the area surrounding the North Side Plaza Shopping Center and in the area immediately around the campus of Southern New Hampshire University; and the Front Street/Hackett Hill route extends into Hooksett on Hackett Hill Road and Countryside Boulevard near the Countryside Village apartment complex (see Appendix C for existing MTA Individual Route Maps).

All of the MTA's routes are linked together into "trains" that are given run numbers. Drivers are then assigned to individual runs. When a bus completes one outbound and one inbound trip, it commences an outbound trip via another route, and so forth. There are twenty-two (22) such "trains", or driver schedules, each weekday.

Frequency of service, or headway, varies with the time of day. Peak hours are defined as before 9:30 a.m. (morning) and after 2:30 p.m. (evening). The midday period runs from 9:30 a.m. to 2:30 p.m. Headways are sometimes shorter during peak hours, and longer during midday periods. Headways do, however, vary by route, time of day, weekday, or Saturday.

During weekday peak hours, 14 buses are operated, while 12 operate during midday periods. Tables 1 and 2 show the frequency of service for weekday and Saturday operations.

<b>Table 1. Weekday Frequency of Service</b>			
<b>Route</b>	<b>Before 9:30 a.m.</b>	<b>9:30 a.m.-2:30 p.m.</b>	<b>After 2:30p.m.</b>
1. Airport	30 min.	—	30 min.
2. Lake – Hanover	60 min.	60 min.	60 min.
3. Goffs Falls	60 min.	60 min.	60 min.
4. Page – Elliot	60 min.	60 min.	60 min.
5. Pinard/Bremer	15-60 min.	60 min.	60 min.
6. Gossler/St. Anselm	60 min.	60 min.	30-60 min.
7. Veteran’s Hospital	60 min.	60 min.	45-60 min.
8. South Willow	60 min.	60 min.	60 min.
9. DW Highway/River	60 min.	60 min.	60 min.
10. Valley/Weston	60 min.	60 min.	60 min.
11. Front/Hackett Hill	60 min.	60 min.	60-75 min.
12. S. Beech/Mall NH	60 min.	60 min.	60 min.
13. Bedford Mall/CCT	35-60 min.	20-60 min.	60 min.

<b>Table 2. Saturday Frequency of Service</b>		
<b>Route</b>	<b>Before Noon</b>	<b>After Noon</b>
1. Airport	No service	
2. Lake – Hanover	No service	
3. Goffs Falls	No service	
4. Page – Elliot	60 min.	60 min.
5. Pinard/Bremer	60 min.	60 min.
6. Gossler/St. Anselm	60 min.	60 min.
7. Veteran’s Hospital	60 min.	60 min.
8. South Willow	60 min.	60 min.
9. DW Highway/River	60 min.	60 min.
10. Valley/Weston	60 min.	60 min.
11. Front/Hackett Hill	60 min.	60 min.
12. S. Beech/Mall NH	60 min.	60 min.
13. Bedford Mall/CCT	60 min.	60 min.

The Manchester Transit Authority also provides types of fixed route service that are slightly different from the above thirteen routes. Shuttle services transport riders to two supermarkets: Vista Foods and Hannaford. This service is financially supported by the supermarkets. Similarly, before and after major events at the Verizon Wireless Arena, the MTA provides shuttle service between the arena and nearby parking areas.

### **Fare Structure**

Below is a listing of present fares for the MTA's fixed route system. Prices vary by the rider's age and by the type of ticket purchased.

#### **Cash Fares**

Adults - \$0.90

Senior Citizen / Handicapped - \$0.45

#### **Tickets - 10 Rides**

Adults - \$8.50

Student (Grade 1-12) - \$6.75

Senior Citizen / Handicapped - \$4.50

#### **Monthly Passes - Unlimited Use**

Adult - \$30.00

Senior / Handicapped - \$15.00

A fare increase is likely to occur in the summer of 2003. The proposed fare structure is as follows:

#### **Cash Fares**

Adults - \$1.00

Senior Citizen / Handicapped - \$0.50

#### **Tickets - 10 Rides**

Adults - \$9.00

Student (Grade 1-12) - \$7.50

Senior Citizen / Handicapped - \$5.00

#### **Monthly Passes - Unlimited Use**

Adult - \$33.00

Senior / Handicapped - \$17.50

#### **Ticket Purchase Locations**

The ten-ride convenience tickets and unlimited monthly passes are available for purchase at the following locations:

- Bank of New Hampshire — Franklin St.
- Manchester Transportation Center
- Vista Foods — Wilson St. and McGregor St.

Any child under the age of five years may ride free with each fare-paying adult; other children pay the regular fare. Senior citizens and disabled patrons are only eligible to ride for the discount half-fare if they have an approved Manchester Transit Authority

identification card. Such identification cards can be obtained from the Manchester Transit Authority.

Free transfers are issued to accommodate continuous travel in one general direction between points not served by one direct route. These transfers are printed for the issuing route, valid only on the date of issue for the amount of time specified. Transfers can only be used by the customer purchasing the fare.

There is no charge for using the Hannaford, Vista Foods, or Verizon Wireless Arena Shuttles, as these are funded by different means than regular transit service. The buses serving the grocery stores are funded by the stores themselves, and the arena shuttle is funded by the city of Manchester.

### **Days of Service**

There are seven holidays during which no fixed-route service is available. They are: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving, and Christmas. As a rule, this results in 52 operating Saturdays and 252 weekdays of scheduled service, equaling 304 operating days annually.

### **MTA Facilities and Equipment**

The MTA offices, maintenance facilities, and bus storage complex is located at 110 Elm Street in Manchester. This facility was completed in January 1976, and contains separate office, storage, and maintenance spaces. The office area provides space for supervisory and clerical personnel, a conference room, and an operators' lounge with locker rooms. The bus storage section consists of seven lanes with overhead doors at their ends; it contains enough space for 35 full-sized transit coaches. The maintenance area contains five bays with hydraulic lifts, a ventilated booth for spray painting and bodywork, a machine shop area, and a spare parts storage room.

An auxiliary building on the premises houses the automatic gantry-type washer used to clean the exteriors of the buses. A fueling island with diesel and gasoline pumps and an overhead canopy is situated outside the main building.

Current MTA rolling stock includes 16 transit coaches (and one spare), 4 lift-equipped StepSaver vehicles, 71 school buses, 10 mini-buses, 3 supervisory vehicles, 1 van, 1 pickup, 1 dump truck, 1 trailer, and 1 front-loader. Fourteen (14) of the transit coaches (and the spare) are lift-equipped. The other two coaches were acquired in 1974 and are not lift-equipped. A detailed inventory follows in Table 3.

Quantity	Year	Make	Model	Seating
1	2001	Gillig	Phantom	35
3	2000	International	3400/Van	20
1	1998	Gillig	Phantom	35
8	1996	Navistar/Thomas	3600/Vista	30
1	1993	Ford/Goshen	E30Y/GCII	12
4	1991	BIA Orion 1	0.1502	29
2	1974	GMC	T6H-4532A	42

Quantity	Year	Make	Model
1	2003	Chevrolet	Pickup Truck
1	2003	Chevrolet	Astro Van
1	2001	International	4700 Dump Truck
1	1999	Carson	Utility Trailer
1	1998	Ford	Crown Victoria
1	1998	Caterpillar	924F Snow Plow
1	1989	Nomanco	Portable High Pressure Trailer

Special attention must be given to the fleet's age and eventual need for replacement. Though this matter is discussed more thoroughly in the Recommendations portion of this document, the issue is raised here to give it greater credence. Thorough financial planning is necessary to successfully phase the purchasing of new vehicles as the useful life of the MTA's existing buses expires.

### **Ridership**

As a result of many factors, annual ridership has decreased over the years. Although annual ridership seemed to stabilize in the late 1990s, there has been a further drop in ridership in the past few years. Prior to 1998, transfers were counted as part of the annual ridership, but as of FY1998 this practice was discontinued to allow for a more accurate ridership number (ridership since FY 1998, then, would be higher if transfers were counted as they were previously). Among less tangible elements, ridership has decreased historically because of increased fares and decreased levels of service.

The weekday number of round trips offered by the MTA has steadily declined, decreasing from 252 in 1984 to 216 in 1992 to 150 (plus two initial one-way trips) in FY1998. Route and schedule changes in 2000, however, resulted in 156 daily round trips, constituting a slight increase. Saturday round trips offered decreased from 141 in 1984 to 66 in 1994. Other service reductions occurred on 4/30/88, 5/2/88, 4/30/90, and 3/4/91. Saturday round trips, however, increased to 90 in 2000. This increase in service frequency, then, cannot explain the continuing decline in ridership.

In addition to these service cutbacks, there was a general fare increase in 1988 (\$0.60 to \$0.75). This resulted in the senior fare increasing from \$0.30 to \$0.35 and adult 10-ride tickets increasing from \$5.75 to \$7.00. In 1989, the student (grades 1-12) 10-ride ticket rose from \$5.25 to \$5.75; in 1994 it was increased to \$6.75. In 1991, there was another general fare increase, from \$0.75 to \$0.90. There was also an increase in senior

fares from \$0.35 to \$0.45; 10-ride adult tickets from \$7.00 to \$8.50; and 10-ride senior tickets from \$3.50 to \$4.50. Though the fare increases of the 1980s were followed by sharp decreases in ridership, general fares have not increased in the past eleven years, and therefore cannot be a cause of the continuing decrease in ridership.

The impact upon ridership is reflected by statistics for FY1992-FY2002, which show the continuous decline in ridership. In the past ten years, as Table 5 displays, ridership has fallen over 42%.

<b>Table 5. MTA Yearly Fixed Route Ridership, FY 1992 – FY 2002</b>		
<b>Year</b>	<b>Ridership</b>	<b>% Change</b>
1992	588,848	0.8
1993	567,071	-3.7
1994	620,018	9.3
1995	551,313	-11.1
1996	476,883	-13.5
1997	462,720	-3.0
1998	447,325	-3.3
1999	432,635	-3.4
2000	454,612	5.1
2001	395,767	-12.9
2002	341,503	-13.7
<b>Change, 1992 to 2002:</b>		<b>-42.1</b>

The source of annual ridership statistics for FY1992 through FY2002 is the MTA Schedule & Route Yearly Ridership, conducted by the MTA. In order to increase clarity all of the data in this report is offered in Fiscal Year format (referring to the span from July to June). As a result of this, some numbers for yearly ridership and so on, may be different than reported in previous years (pre-1998). Other route-specific data provided by the MTA includes route length, service frequency, weekday bus miles, and Saturday bus miles.

Though each year has its own pattern of ridership, commonalities arise when monthly ridership statistics are compared, as evident in Figure 3 and Table 6. Since 1992, for example, the months with the highest ridership tend to be in autumn (September and October) or in the spring (April and May). Ridership was at its lowest in mid-winter (January and February) and mid-summer (June and July).

<b>Table 6. High and Low Months for MTA Fixed Route Ridership, FY 1992 – FY 2002</b>		
<b>Year</b>	<b>Highest Month and Ridership</b>	<b>Lowest Month and Ridership</b>
1992	October 54,378	June 43,715
1993	April 50,496	February 40,700
1994	March 61,540	July 47,392
1995	September 57,100	February 36,611
1996	August 43,549	June 36,211
1997	October 43,178	June 35,003
1998	October 40,835	February 39,940
1999	October 39,495	January 30,624
2000	May 40,756	January 31,953
2001	October 34,930	February 28,058
2002	May 32,796	October 24,604

The ridership projections contained in the previous plan were for the years 1999-2003. Actual ridership was quite close to the projected ridership. The projections were low for 1999 and 2000, very accurate for 2001, and high for 2002.

<b>Table 7. Projected and Actual Ridership, 1999-2002</b>		
<b>Year</b>	<b>Projected Ridership</b>	<b>Actual Ridership</b>
1999	423,667	432,635
2000	410,110	454,612
2001	398,627	395,767
2002	388,661	341,503

Between FY1994 and FY1998, cash fare revenue decreased by 20.8% from \$189,000 to \$149,682. Between FY1999 and FY2002, the amount collected in revenue from cash fares decreased by 14.08% from \$149,905 to \$128,799. Overall from 1992 to 2002, there was a 34.25% decrease in the cash fares collected. Only 19.9% of the FY2002 revenue came from the sale of 10-ride tickets. Figure 4 displays the share of different sources of revenue from 1992-2002.

Figure 5 indicates that 62.9% of transit revenue comes from cash fare, 12.5% comes from adult 10-ride tickets, 4.4% comes from senior citizen 10-ride tickets, and 2.9% comes from student 10-ride tickets. Adult monthly passes comprise 9.05% of the revenue, while discounted half price monthly passes account for 8.08% of the revenue.

MTA StepSaver ridership has fluctuated considerably over the last eight years. Although there were sizable increases in ridership until 1997, the ridership fell 23.7% between 1994 and 2002 (see Table 8). Presently, the MTA is making a concerted effort to improve its StepSaver service. The MTA has recently implemented new software to better schedule and manage system operations. It is anticipated that the MTA's paratransit service will grow considerably in the next several years because of these technical improvements and the new management's priorities.

<b>Table 8. MTA StepSaver Ridership, FY 1992 – FY 2002</b>		
<b>Year</b>	<b>Ridership</b>	<b>% Change</b>
1994	8,614	6.7
1995	8,629	0.2
1996	9,588	11.1
1997	9,582	-0.1
1998	8,862	-7.5
1999	7,427	-16.2
2001	6,822	-8.1
2002	6,573	-3.6
<b>Change, 1992 to 2002:</b>		<b>-23.7</b>

The source of annual StepSaver ridership statistics is the MTA Schedule & Route Yearly Ridership. A fleet of four lift-equipped vehicles serves StepSaver patrons. Three vans are used actively while the fourth is held in reserve for use by both the paratransit and fixed-route service. The fare charged for StepSaver service is \$1.50 for a one-way trip.

Monthly patterns for high and low StepSaver ridership are not as pronounced as for MTA fixed route service. When the high and low months for StepSaver ridership are examined over the past eight years (Table 9), it seems as if the month has little bearing on the level of ridership. This data is graphically presented in Figure 6, where the lack of a concrete ridership pattern is evident.

<b>Table 9. High and Low Months for MTA StepSaver Ridership, FY 1994 – FY 2002</b>		
<b>Year</b>	<b>Highest Month and Ridership</b>	<b>Lowest Month and Ridership</b>
1994	June: 849	February: 622
1995	March: 799	November: 656
1996	May: 922	July: 633
1997	January: 882	June: 668
1998	April: 873	July: 650
1999	March: 712	January: 521
2001	March: 654	October: 428
2002	June: 795	May: 411

## **On-Board Rider Surveys**

In order to assess the characteristics of the current riders, on-board surveys of transit users are conducted, the most recent of which was carried out in November 1999. The survey questionnaire is found in Appendix A.

Female ridership continues to make up the majority of the riders; however, for the first time in the history of this survey, female comprised less than 60% of the total ridership (54%). Consequently, male ridership was over 40% for the first time (41%). It is unknown why male ridership has continued to increase throughout the past 25 years. The number of teenage and young adult riders has continued to significantly decrease over the years, and the numbers for 1999 are similar to those from 1995 (see Table 10). This loss of ridership has resulted in a significant proportional increase in usage by the 25-44 and 45-64 year old groups. The 65-year or older group decreased from 32% of all riders in 1992 to nearly 19% in 1999. Although the percentage for the 65-year or older group has dropped from the 1995 and 1992 survey figures, it is still well above the 12-15% ridership share it comprised in the 1970s and 1980s.

The percentage of riders with no automobiles has increased sharply over the past twenty-five years. Although down from the 1995 figure of 65%, it grew from 42% in 1975 to just over 60% in 1999. Perhaps more importantly, though, automobile availability among riders increased from 19% in 1995 to 22% in 1999. Even though this number has increased slightly, it still indicates that the majority of transit riders (68%) do not have access to an automobile. Similarly, the number of transit patrons lacking a driver's license has continued to steadily climb; nearly 69% of the 1999 survey respondents do not possess licenses.

Over 70% of riders responded that they use the bus nearly every day, while another 22% ride at least 1-3 times per week. MTA riders are predominantly of low income. Over 46% of the riders have household incomes of \$20,000 or less. However, it is important to note that this figure would most likely be significantly higher, but nearly 22% of those surveyed did not give a response to this question. Most riders do not come from a nuclear family household. More than 64% of the survey respondents indicated that they live in a one or two person household. Moreover, the largest category of riders (38.58%), live alone. It was also discovered from the 1999 survey that most transit patrons live in the older neighborhoods of Manchester, which are located within two miles of the Central Business District.

The 1999 survey reaffirms patterns that have been discerned over the past twenty-five years of surveying. Transit patrons are chiefly transit-dependent (or "captive riders"). Traits such as low incomes, lack of drivers' licenses, lack of automobile availability, solitary existences, and aging force these people to rely on transit on a daily basis. Those who utilize transit in Manchester generally do so because they have no other real option.

Bus trips between home and work have continued to decline over the past twenty-five years. In 1975, they comprised 55% of all trips; in 1999, the figure was 46.76%.

However trips between home and work in 1999 are the highest they have been since 1984 (55%). Trips between home and school have been more than halved. In 1975, they comprised 20% of the trips, while they only comprised 8.06% of the trips in 1995. Home-based shopping trips have increased over the years as well. While not at the 1992 survey peak of 21%, the 1999 survey figure of 19.66% is more than double the 9% figure from the 1984 survey. Home-based medical, personal and social/recreational trips have remained fairly constant since 1979.

The 1999 on-board survey also resulted in many recommendations on how to improve the bus service. The most common suggestions were later operating hours at night, increasing service to the Manchester Airport, and providing bus schedules on the bus with route maps and departure and arrival times. Other suggestions included the following: bus service on Sunday, extending Saturday bus service, decreasing the wait time between connecting buses, bike racks on buses, improving customer service, and building more bus shelters.

**Table 10. MTA Ridership Profile, On Board Surveys**

Question	Response	Percent by Year					
		1975	1979	1984	1992	1995	1999
Sex	Male	30%	29%	31%	32%	35%	42%
	Female	70%	71%	69%	68%	62%	54%
	No Response	-	-	-	-	2%	4%
Age	14 and under	2%	3%	3%	2%	2%	2%
	15-19	28%	28%	17%	9%	9%	8%
	20-24	12%	12%	12%	8%	6%	8%
	25-44	23%	23%	30%	29%	28%	33%
	45-64	23%	23%	23%	21%	27%	26%
	65+	12%	12%	15%	32%	26%	19%
	No response	-	-	-	-	3%	5%
Autos/Household	None	42%	39%	49%	63%	65%	60%
	1	40%	37%	29%	23%	20%	23%
	2	18%	24%	14%	11%	9%	8%
	3+	-	-	6%	3%	3%	2%
	No response	-	-	-	-	3%	6%
Auto Available For Trip	Yes	15%	17%	13%	29%	20%	22%
	No	85%	83%	87%	71%	73%	69%
	No response	-	-	-	-	8%	9%
Driver's License	Yes	37%	45%	42%	36%	32%	28%
	No	63%	55%	58%	63%	67%	69%
	No response	-	-	-	-	1%	3%
Trip Origin	Home	59%	59%	65%	64%	60%	66%
	Work	18%	18%	14%	13%	14%	14%
	School	10%	10%	10%	5%	4%	2%
	Shopping	6%	6%	5%	11%	11%	8%
	Pers. Bus.	4%	4%	3%	3%	3%	2%
	Soc./Rec.	1%	1%	1%	1%	1%	1%
	Medical	2%	2%	2%	3%	3%	1%
	Other	-	-	-	-	1%	3%
	No response	-	-	-	-	1%	3%
Trip Destination	Home	31%	31%	28%	33%	29%	26%
	Work	37%	37%	41%	25%	25%	33%
	School	10%	10%	9%	7%	7%	6%
	Shopping	9%	9%	9%	21%	18%	20%
	Pers. Bus.	8%	8%	7%	6%	7%	4%
	Soc./Rec.	3%	3%	3%	2%	3%	3%
	Medical	3%	3%	3%	5%	4%	3%
	Other	-	-	-	-	3%	3%
	No Response	-	-	-	-	2%	4%

### **Additional Comments**

Separate surveys were distributed by the MTA staff in 1997 at focus group meetings with residents from Varney Street, Mitchell Street (Ramsey Apartments), and Pine Village Estates. All of the citizens who were surveyed were above the age of 55. Nineteen recommendations were collected. The most common suggestion was Sunday bus service. The respondents felt that Sunday service would enable them to attend church services, go to the beach, and take advantage of major retail sales over the weekend. Ease of getting onto buses was also noted as a major concern. Apparently, riders have trouble negotiating the “high” steps. Other requests include color-coded bus routes; bus stops closer to residences; “better” schedules, especially those with larger print; driver courtesy; and winter travel problems such as buses stopping on ice, in snow, in puddles, or away from the sidewalks. Additional suggestions include more readable and understandable schedules, larger-print signs, and increased frequency of service. Interestingly, it was discovered that comfort in riding buses and Sunday service are of greater concern to these respondents than longer operating hours, which has been a traditional request. This can be attributed to the transit-dependent and elderly status of the respondents.

The MTA also conducted a survey of the businesses in Manchester and of the businesses along South River Road in Bedford. Respondents included 16 service organizations, 5 area colleges, 27 Manchester businesses, 8 Bedford businesses, and 3 employment placement agencies.

Service organizations requested longer service hours and better service to Manchester’s downtown and West Side, and Bedford. Other suggestions from the service organizations include easily understandable and more readable schedules and signs. It was noted that patrons of the area’s service organizations find it difficult to understand the current schedules, especially the elderly and immigrants who are apt to be reluctant to ask questions. Requests were also made for better service to the Airport, East Industrial Park, southern Manchester, the Town of Bedford, Elliott Hospital, Bedford Commons, and West Side and Inner City neighborhoods.

The main request from the business community and the area’s colleges was longer service hours, specifically during the evening and late night hours, as many retail businesses and restaurants are open until 9PM or 10PM, most of the local college’s evening classes are held until at least 10PM and manufacturing and production type businesses have employees working throughout the day and evening in shifts.

### **Load Count Data**

The MTA maintains monthly ridership data by run assignment for weekday and Saturday schedules. Such data comes directly from the daily report sheets submitted by the drivers on each run. Weekday ridership has continued to decline, as visible in Table 11. Over the past 10 years, weekday ridership has decreased by a troubling 43.6%.

<b>Table 11. MTA Average Weekday Ridership, FY 1992 – FY 2002</b>		
<b>Year</b>	<b>Ridership</b>	<b>% Change</b>
1992	2,148	0.3
1993	2,119	-1.4
1994	2,015	-4.9
1995	1,735	-13.9
1996	1,687	-2.8
1997	1,615	-4.3
1998	1,644	1.8
1999	1,523	-7.4
2000	1,579	3.7
2001	1,360	-13.9
2002	1,211	-11.0
<b>Change, 1992 to 2002:</b>		<b>-43.6%</b>

The routes having the greatest ridership have remained essentially the same. Bedford Mall, Valley/Weston, and South Beech continue to experience relatively high patronage due to their service of the Mall of New Hampshire and Bedford Mall. However, every route, with one exception, has experienced a loss in ridership since 1991. The greatest losses on individual routes between 2001 and 2002 have occurred on the Airport Route (31.5%), Bedford Mall (30.4%)<sup>1</sup>, and Front St/Hackett Hill (18.2%). Only four routes saw an increase in ridership in the same period, and these increased were relatively marginal. They were: Page-Elliot (9.2%), DW/River Road (2.4%), VA Hospital (2.3%), and Lake/Hanover (0.8%). These numbers are visible in Table 12. For detail on monthly averages by route, see Figures 8 and 9. For a slightly broader perspective, Figure 7 displays route ridership from 1998 to 2002.

<b>Table 12. Average Weekday Ridership by Route, FY 2001 – FY 2002</b>			
<b>Route</b>	<b>Passengers 2001</b>	<b>Passengers 2002</b>	<b>% Change</b>
1. Airport	54	37	-31.5
2. Lake – Hanover	127	128	0.8
3. Goffs Falls	44	36	-18.2
4. Page – Elliot	76	83	9.2
5. Pinard/Bremer	63	58	-7.9
6. Gossler/St. Anselm	78	74	-5.1
7. Veteran’s Hospital	88	90	2.3
8. South Willow	106	95	-10.4
9. DW Highway/River	85	87	2.4
10. Valley/Weston	146	145	-0.7
11. Front/Hackett Hill	83	63	-24.1
12. S. Beech/Mall NH	122	117	-4.1
13. Bedford Mall	224	156	-30.4
CCT	18	8	-55.6
<b>Totals</b>	<b>1360</b>	<b>1179</b>	<b>-13.3</b>

<sup>1</sup> The Bedford Mall route’s ridership level appears to have fallen substantially, but this is not entirely accurate. Beginning in 2002, ridership on this route was counted differently than before, resulting in more accurate, and lower, numbers. The Bedford Mall route’s decrease in ridership, then, is not as drastic as it appears in the statistics.

Saturday ridership, while low, has fared better than weekday ridership. Over the past 10 years, it has risen marginally (8.9%), as evident in Table 13.

<b>Table 13. MTA Average Saturday Ridership, FY 1992 – FY 2002</b>		
<b>Year</b>	<b>Ridership</b>	<b>% Change</b>
1992	642	-7.9
1993	689	7.3
1994	672	-2.6
1995	675	0.5
1996	626	-7.2
1997	573	-8.5
1998	560	-2.3
1999	632	12.8
2000	618	-2.1
2001	650	5.1
2002	699	7.7
Change, 1992 to 2002:		8.9%

Comparing specific route ridership numbers from 2001 and 2002, there has been an overall decrease of nearly 2%, with some routes increasing quite well. The Valley/Weston and the DW/River routes saw relatively significant increases, while the greatest losses in ridership were evident on the Front St, South Willow, and Pinard/Bremer routes. See Table 14 for details. Figures 10 and 11 display 2002 ridership by month.

<b>Table 14. Average Saturday Ridership by Route, FY 1992 – FY 2002</b>			
<b>Route</b>	<b>Passengers 2001</b>	<b>Passengers 2002</b>	<b>% Change</b>
4. Page – Elliot	74	80	9.0
5. Pinard/Bremer	29	25	-14.5
6. Gossler/St. Anselm	29	27	-9.3
7. Veteran’s Hospital	33	33	-0.4
8. South Willow	94	76	-18.4
9. DW Highway/River	43	51	18.0
10. Valley/Weston	64	93	47.0
11. Front/Hackett Hill	33	22	-33.6
12. S. Beech/Mall NH	120	116	-3.4
13. Bedford Mall	145	127	-11.9
<b>Totals</b>	<b>662</b>	<b>650</b>	<b>-1.9</b>

Ridership levels during both weekdays and Saturdays continues to reflect a preference for using transit for shopping purposes. The routes with the greatest daily ridership levels, Valley/Weston, South Beech, and Bedford Mall, serve commercial centers such as the Bedford Mall, the Mall of New Hampshire, and the South Willow retail corridor.

The MTA monitors ridership on its routes through its vehicle drivers. The drivers record the number of passengers that board on each route run. This data is then

aggregated for each individual route. Such figures were utilized to determine average weekday ridership, Saturday ridership, weekday riders per mile, and Saturday riders per mile for each route. The accuracy of this data is not entirely guaranteed; driver error has been acknowledged in the past. A more accurate system of recording ridership should be implemented, and the MTA has taken action on this matter with the programming of funds for new electronic fareboxes, which will be able to accurately record ridership. 100% load counts should be used to verify daily ridership counts, as well as provide a basis for robust system planning.

As part of the Federal Transit Administration's reporting requirements, the MTA is performing random load counts this year. Though the data may be limited in terms of practical applications, it should prove to be useful for purposes of comparison.

Average weekday and Saturday ridership data can be used to determine the revenue derived from each route. This is then compared to the cost of providing each route. That aspect of system operation is covered later in Chapter Two, where the quality of existing service is evaluated.

### **Revenues and Expenditures**

There are a variety of income sources that the MTA utilizes to provide transit service in the city of Manchester. Major sources include revenues from the farebox, from non-transportation activities, federal assistance, and local cash grants, primarily from the City of Manchester.

Auxiliary transportation revenues are derived from advertising services, charter services, school services, and StepSaver services. Non-transportation revenues are derived from the sale of maintenance services, rental of buildings and other properties, investment income, and sale of vehicles.

Financial assistance from the Federal Transit Administration (FTA) is available under the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21). The MTA is reimbursed for 50 percent of all operating expenses not covered by fare and other revenues. The financing of transit facilities and equipment are also provided for, with the federal government paying 80 percent of the total cost and the local municipalities paying the remaining 20 percent. The MTA has been able to update its fleet and make it ADA accessible using this proviso.

The city of Manchester has ridden a roller coaster of federal operating assistance over the past decade. FTA funds increased until the early 1990s then fell. Since 1999, however, FTA funds have been on a general increase. Recent FTA contributions are the highest that they have ever been, with annual amounts of \$971,014 in 2001, and \$845,046 in 2002. Table 15 displays the yearly FTA grants provided to the city of Manchester.

<b>Table 15. FTA Assistance, FY 1992 – FY 2002</b>	
<b>Year</b>	<b>Contribution (\$)</b>
1992	596,372
1993	675,832
1994	136,628
1995	539,006
1996	541,298
1997	394,973
1998	390,980
1999	577,978
2000	751,000
2001	971,014
2002	845,046

General operating assistance at the local level has been steadily declining after peaking in 1988 at \$1,621,730. Since 1992, local funding has dropped by over 44 percent. Yearly apportionments are illustrated in Table 16. This decrease in local funding is a serious cause for concern, as the utility of FTA funding is completely dependent on the availability of local matching funds.

<b>Table 16. Local Assistance, FY 1992 – FY 2002</b>	
<b>Year</b>	<b>Contribution (\$)</b>
1992	1,367,955
1993	1,339,528
1994	1,307,724
1995	937,956
1996	938,400
1997	938,400
1998	938,067
1999	938,400
2000	689,700
2001	702,930
2002	764,600

Tables 17 and 18 provide itemized breakdowns of MTA revenue sources and expenditures on a per-rider basis. Farebox revenue, local assistance, and federal assistance as percentages of per-rider revenue have slightly fluctuated and declined over the past decade. Not surprisingly, local and federal operating assistance still comprises the lion's share of income per rider. For FY2002, per rider revenue was divided as follows: farebox revenue – 9.9%, other income – 13.3%, local operating assistance – 36.6%, and federal operating assistance – 40.2%.

<b>Table 17. Transit Revenues Per Rider and Per Mile, FY 2002</b>			
<b>Revenue Source</b>	<b>Per Mile</b>	<b>Percent</b>	<b>Per Rider</b>
Passenger Revenue <sup>2</sup>	\$0.434	9.9	\$0.607
Other Revenue <sup>3</sup>	\$0.589	13.3	\$0.816
Local Assistance	\$1.623	36.6	\$2.246
Federal Assistance	\$1.782	40.2	\$2.467
<b>Totals</b>	<b>\$4.434</b>	<b>100</b>	<b>\$6.136</b>

<b>Table 18. Transit Expenditures Per Rider and Per Mile, FY 2002</b>			
<b>Expense Category</b>	<b>Per Mile</b>	<b>Percent</b>	<b>Per Rider</b>
Labor	\$1.916	40.4	\$2.655
Fringe Benefits	\$1.034	21.8	\$1.433
Services	\$0.295	6.2	\$0.408
Materials and Supplies	\$0.608	12.8	\$0.843
Utilities	\$0.071	1.5	\$0.099
Casualty and Insurance	\$0.077	1.6	\$0.107
Miscellaneous	\$0.739	15.6	\$1.024
<b>Totals</b>	<b>\$4.743</b>	<b>100</b>	<b>\$6.566</b>

### **Expenditure/Revenue Trends**

System revenues and expenditures for the years 1992 through 2002 are given in Table 19. The information contained in Table 19 is also displayed graphically in the following series of figures. Figures 12-18 show information related to transit revenues and expenses, calculated in general, and also per mile and per rider. Between 1992 and 2002, revenues, or combined farebox and “other” incomes, increased by 5.9%, from \$459,502 in 1992 to \$486,546 in 2002. Of particular note is that farebox revenue has declined by 31.8% over the same time period. Meanwhile, “other” income has risen substantially, by 78.1% over the same time period.

The cost of providing service decreased by 15.9% between 1992 and 2002, going from \$2,702,811 to \$2,273,909. This can be attributed to reductions in service: the less service provided the less it costs to pay for it. Respectively, all categories of costs have decreased (see Table 19). It should be noted, however, that the costs have once again begun to rise. If the span between 1997 and 2002 is examined instead of the 1992-2002 stretch, nearly all expenses (except for insurance, utilities, and miscellaneous) have risen by sizable margins.

<sup>2</sup> Includes cash fares and ticket revenues

<sup>3</sup> Includes income from charter, auxiliary, and non-transportation sources

<b>Table 19. Revenues and Expenditures for Transit Route Service</b>					
<b>Revenues</b>	1992	1997	2002	% Change 92-02	% Change 97-02
Fares	303664	242259	207030	-31.8%	-14.5%
Other	155838	255698	277514	78.1%	8.5%
<b>Total</b>	<b>459502</b>	<b>497957</b>	<b>486546</b>	<b>5.9%</b>	<b>-2.3%</b>
<b>Expenses</b>					
Labor	1002774	798980	919071	-8.3%	15.0%
Fringe	722936	412616	495808	-31.4%	20.2%
Service	105403	91869	141297	34.1%	53.8%
Materials	218552	167119	291906	33.6%	74.7%
Utilities	71959	57912	34243	-52.4%	-40.9%
Insurance	100593	97122	37073	-63.1%	-61.8%
Miscellaneous	480594	326299	354511	-26.2%	8.6%
<b>Total</b>	<b>2702811</b>	<b>1951917</b>	<b>2273909</b>	<b>-15.9%</b>	<b>16.5%</b>
<b>Net Loss</b>	<b>-2243309</b>	<b>-1453960</b>	<b>-1787363</b>	<b>-20.3%</b>	<b>22.9%</b>
local assist	1367955	938400	764600	-31.4%	-18.5%
federal assist	596372	394973	839182	40.7%	112.5%

The projections contained in the previous plan were for the years 1999-2003. Overall, the cost of providing service is greater than was projected. Farebox revenue is slightly greater than was predicted. Detailed information and statistics are displayed in Table 20.

<b>Table 20. Projected (from previous SRTP) and Actual Revenues and Expenses, 1999-2002</b>			
		Projected	Actual
Cost (\$)	1999	1977411	1977411
	2000	2036733	2042354
	2001	2097835	2280374
	2002	2160770	2273909
Passengers	1999	423667	423667
	2000	410110	437919
	2001	398627	379273
	2002	388661	333503
Fare Revenue	1999	221013	228906
	2000	213940	243438
	2001	207950	216671
	2002	202751	207030
Other Revenue	1999	161627	161627
	2000	165000	168527
	2001	165000	136700
	2002	165000	277514
Operating Deficit	1999	1756398	1748505
	2000	1822793	1798916
	2001	1889885	2063703
	2002	1958019	2066879
Fed. Oper. Assis.	1999	577978	57978
	2000	665000	751000
	2001	730000	985564
	2002	745000	839182
Local Funds	1999	938400	938067
	2000	690000	689700
	2001	755000	702930
	2002	770000	764600
Rev.-Exp. Ratio	1999	0.11	0.12
	2000	0.11	0.12
	2001	0.10	0.10
	2002	0.09	0.09

### **Cost Allocation Among MTA Services**

In order to distribute costs among the various services, the MTA utilizes a series of cost allocation procedures for public transit and StepSaver service, and school transportation. Public transit and StepSaver service receive operating and capital assistance funds. Tables 21 and 22 indicate the FY2002 cost allocation and income.

<b>Table 21. Cost Allocation, FY 2002</b>	
<b>Service</b>	<b>Total Cost</b>
Transit	\$1,929,351
StepSaver	\$168,228
School	\$1,613,442
<b>Totals</b>	<b>\$3,711,021</b>

<b>Table 22. Income Breakdown, FY 2002</b>	
<b>Service</b>	<b>Total Income</b>
Transit	\$484,545
StepSaver	\$9,676
Local Assistance	\$764,600
Federal Assistance	\$839,182
School	\$1,655,521
<b>Totals</b>	<b>\$3,753,524</b>

**Existing Paratransit Service (StepSaver)**

Since November 1978, the MTA has provided curb-to-curb service for the mobility-impaired who are unable to use the regular transit service. Prospective StepSaver clients complete applications administered by the Federal Transit Administration in compliance with the Americans with Disabilities Act. Upon receipt and review of the applications, individuals are then certified to use StepSaver service by the MTA’s Assistant Director. In order to use this service, the client’s disability must prevent them from using regular fixed-route transit service. Also, certification by a physician or health care agency is required to verify that an individual has at least one of the following disabilities:

- legally blind
- hearing deficiency
- speech impediment
- mobility impairment
- mental impairment

During FY2002, the MTA StepSaver Service carried 6,573 passengers, utilizing four lift-equipped vehicles. The service is provided Monday through Friday with departures between 5:25AM and 6:15 PM, and on Saturday with departures between 7:30 AM and 5:00 PM. A fare of \$1.50 is charged for each one-way trip. There are no limits relating to trip purpose, but 24-hour advance notice is required.

A fleet of four lift-equipped vehicles provides this service. Three vans are used actively while the fourth is held in reserve for use by both the paratransit and fixed-route service. As of May 2003, 489 individuals are qualified to use this service.

Prior to 1993, there were several constraints on StepSaver service. Trips were limited to four per week. Waiting lists were reserved for subscription customers only as well. Currently, there are no restrictions on trip purpose or “caps” on the number of trips provided to any individual. Additionally, next-day non-subscription service is available.

In FY2002, StepSaver vehicles traveled 16,590 miles, which is 3.4% of the total mileage operated by the system (including StepSaver and Transit miles).

Expenditures and revenues related to StepSaver Service have risen sharply over the past few years. In 1992, \$8,521 was collected while \$9,676 was collected in FY2002, a marginal increase. In the years within the above mentioned time frame, however, there was a significant increase in fare revenue, peaking in 1997 at \$14,371. Costs have jumped from \$83,578 in 1992 to \$169,513 in FY2002, an increase of over 100%. During that time period, total expenditures have fluctuated, increasing until 1996 and then falling until 2002. The chief costs for StepSaver Service have been labor, fringe benefits, and materials/supplies (see Table 23).

<b>Expense Category</b>	<b>1992</b>		<b>1997</b>		<b>2002</b>	
Labor	\$67,505	80.8%	\$91,914	63.4%	\$110,817	65.9%
Fringe Benefits	\$1,062	1.3%	\$39,818	27.5%	\$35,645	21.2%
Materials/Supplies	\$7,912	9.5%	\$11,861	8.2%	\$11,670	6.9%
Insurance	\$5,624	6.7%	\$0	0.0%	\$5,596	3.3%
Other	\$1,475	1.8%	\$1,376	0.9%	\$4,500	2.7%
<b>Totals</b>	<b>\$83,578</b>	<b>100.0%</b>	<b>\$144,969</b>	<b>100.0%</b>	<b>\$168,228</b>	<b>100.0%</b>

### **School Bus Contract Services**

Manchester School District contracts with the MTA for the daily transportation of eligible elementary and junior high school students. 71 school buses and 10 mini-buses were used during FY2002 to transport students. These buses traveled 592,593 miles; this represented 54.3% of the total system mileage.

During 1989, the MTA was contracted for \$1,026,096.47 by the city of Manchester for this purpose. In FY1997, that figure had risen by 26.1% to \$1,294,198.12; by 2002, this figure increased to \$1,395,175.90. This category has continued to increase while other sources of income within the overall system, such as transit farebox revenue, have sharply declined.

In addition to the contracted school transportation, the MTA also provides charter service to the school department, using yellow school buses. In 1997, \$196,183.30 was collected for this purpose; this rose to \$245,947.55 in 2002.

School bus contracted services have comprised the largest single element of MTA non-assistance income in the recent past. School bus services have also continued to rise as a part of total MTA income, as visible in Table 24.

<b>Table 24. School Bus Revenue</b>		
<b>Year</b>	<b>As % of MTA Non-Assistance Income</b>	<b>As % of Total MTA Income</b>
1992	74.6	36.1
1997	74.6	44.9
2002	77.2	44.1

Reduced-fare student tickets used on regular transit buses are not included as part of the contract with Manchester School District. High school students can use the student 10-ride tickets to ride on school buses.

### **Employer and Merchant Sponsored Services**

At the present time there are no employer nor merchant sponsored services.

### **Select Trips to Major Employment Centers**

The MTA provides a number of select trips to areas of major employment. Route 2, Lake/Hanover, serves East Industrial Park Drive during the weekdays. There are 5:35 a.m., 6:35 a.m., 7:35 a.m., 4:00 p.m., and 5:00 p.m. trips on this line. Trips to the Car Components Technology (CCT) plant in Bedford, an extension of the Bedford Mall route, are made at 6:25 a.m. and 2:20 p.m. Also on the Bedford Mall route, the Manchester Country Club is served at 6:25 a.m., 7:00 a.m., 2:20 p.m. and 3:00 p.m.

### **Day Trips**

During the summer and fall, the MTA operates trips to points of interest. In the summer, trips are provided to Hampton Beach.

### **Non-MTA Service**

City departments, social service agencies, non-profit organizations, and private companies offer additional transportation services in Manchester and adjacent communities.

Local planning goals have included: working towards the coordination of all such services, realizing that the benefits of reduced costs, elimination of overlap and duplication of service, as well as filling voids in existing service, would be completed through such efforts.

Since June 1982, five area agencies, working under the auspices of a Memorandum of Understanding, have coordinated in the areas of: emergency communication, bulk purchase of fuel and parts, fleet purchase and lease of vehicles, and continued cooperation.

As a part of preparing the MTA Plan for Complementary Paratransit Service, the Manchester Advisory Committee on Transportation for the Disabled was established in 1991. The Committee is comprised of representatives from human service agencies,

transportation providers, and disabled volunteers from the community at large. In addition to finalizing the paratransit plan, the Committee executed a Memorandum of Understanding with the MTA. Via the memorandum, the MTA is required to:

- have the Committee review and comment on all vehicle acquisitions and modification plans to bus and paratransit vehicles;
- make presentations regarding construction projects involving public access to transportation facilities;
- notify the Committee prior to public hearing of planning efforts to ensure that programs are responsive to the needs of persons with disabilities; and
- solicit Committee review and comment on the special efforts elements of the TIP.

The Committee is required to:

- respond to all MTA requests for advice, review, and comment in a timely manner;
- assist the MTA in soliciting consumer comments on pending federal mass transit legislation;
- keep the MTA abreast of new developments concerning the transportation of the disabled in other parts of New Hampshire and the U.S.;
- assist the MTA in developing and promoting outreach efforts and publicizing MTA services for disabled persons; and
- assist the MTA in the planning, design, implementation, development, and evaluation of MTA programs for disabled persons.

Similarly, the Southern New Hampshire Eldercare Council (SNHEC) Transportation Committee was founded in December 1994 to identify the needs of the elderly population in the South New Hampshire area. The council is composed of more than 50 interested and concerned healthcare providers, professionals, and individuals. Its role is to work towards the improvement of easy access to a ride for any elderly citizen who needs transportation. The Council is working to improve communication between local and regional transit providers, increase funding sources for transportation and direct service providers, and to increase the number of consumers. Specific goals of the committee are:

- handicapped accessibility (including dementia);
- work to assure maximum use of current resources;
- ability to monitor services and quality, and then make referrals to appropriate resources;
- develop a network and referral process between private and public providers promoting a variety of modes of transportation based on the need of the individual; and
- identify gaps in services, and promoting the development of new services or increase funding for existing services to meet those needs.

Additionally, a similar council has recently been organized to meet the needs of people in other parts of SNHPC's constituency. The Greater Derry/Salem Regional Transportation Council was formed in 1997 by more than 20 local non-profit

organizations to begin to grapple with a perceived lack of transportation services. This Regional Transportation Council, in conjunction with the Southern New Hampshire Planning Commission, the Rockingham Planning Commission, and the Nashua Regional Planning Commission, is nearing the completion of a transit plan for the region. This plan places primary focus on the coordination of existing services, though other options, including fixed route service, are analyzed.

### **Human Service Providers**

#### **American Cancer Society**

As a volunteer agency, the American Cancer Society provides transportation to cancer patients for cancer related purposes as the need arises. Personal cars and one van (used only in Laconia) are used to provide this service. Service is offered from Monday to Friday, 9:00am to 5:00pm.

#### **Cardinal Care Transportation**

This privately owned business has one Ford 350 van that can transport up to seven passengers or three wheelchairs in the Manchester area.

#### **Caregivers, Inc.**

The Caregivers is an organization that assists the frail, elderly, and disabled. In 2001, their volunteer staff provided 5,800 rides (in their own personal automobiles) for the organization's 417 clients in Greater Manchester and Greater Nashua.

#### **Catholic Medical Center**

Catholic Medical Center provides transportation at no cost to assist patients in accessing hospital services. The service is limited to patients who have no personal transportation available, and serves communities in the greater Manchester area. The service utilizes two 8 passenger / 4 wheelchair capable vans, and operates weekdays between 8:00am and 4:00pm.

#### **Elliot Hospital**

Senior citizens aged 55 and older are transported to and from the hospital from their homes on a no-fare basis. One 8-passenger and two 12-passenger vans provide this service.

#### **Lamprey Health Care Center**

A fleet of 7 buses and one station wagon is used to provide weekly transportation for the elderly from rural towns in Rockingham County to Manchester. All of the buses are lift-equipped, and each has the capacity for two wheelchairs and from 10 to 24 passengers.

#### **Manchester Boys and Girls Club**

During the school year, three 72 passenger buses provide transportation from area schools to the Manchester Boys & Girls Club for activities. A 20 passenger mini-bus is also utilized for additional transportation as well as for team sports and field trips. Approximately 250 children are transported on the buses each day. In the summer, six

buses are used to provide transportation to the Club's day camp in Bedford. Approximately 315 children are transported each day to the summer camp.

#### **Manchester Housing and Redevelopment Authority**

The Manchester Housing and Redevelopment Authority utilizes nine (9) vehicles to transport individuals involved in its Resident Services programs. The Authority has two 15-passenger vans, two 15-passenger buses, two 16-passenger buses, two 20-passenger buses with lifts, and one 15-passenger bus with a lift.

#### **The Mental Health Center of Greater Manchester**

This public non-profit agency transports its patients to and from their residences utilizing a fleet of three 15-passenger vans, one 7-passenger mini-van, and one 21-passenger bus (none of which are lift-equipped). Approximately 24,560 patients are transported annually.

#### **New Hampshire Wheelchair Transport, Inc.**

New Hampshire Wheelchair Transport Inc. is a privately owned firm that uses three lift-equipped vans and one mini-van to provide transportation services. This agency also provides individualized service, and is a Medicaid Provider.

#### **Southern New Hampshire Services, Inc.**

Southern New Hampshire Services is an Accompanied Transportation Provider for the Divisions of Children and Youth Families in the Manchester area. Thirteen (13) vehicles, none of which are lift-equipped, are used to provide accompanied transportation services to 240 families annually. This agency also provides transports when requested by local school districts.

#### **Special Transit Service, Inc.**

Special Transit Service (STS), Inc. is a public, non-profit agency that provides transportation services to human service agencies and other organizations in the Manchester area, as well as to disabled individuals. Charges for services are negotiated with individual agencies. Current organizations having contracts with STS are the Manchester School System, the Londonderry School System, other school districts, EMS Licensed Medicaid Transportation, Optima Health Systems, the Manchester Community Health Center, Vocational Rehabilitation, Granite State Independent Living Foundation, Easter Seals, and the Manchester Housing Authority. STS does not charge fares for direct service to disabled individuals, but instead asks for donations. Their fleet consists of 20 regular vans, 23 lift-equipped vans, and 30 school buses. The majority of buses have the capacity for 16 passengers. Only three of the buses can accommodate from one to six wheelchairs. The majority of regular vans have a capacity for 7 passengers, while the lift-equipped vans can accommodate 7 passengers and one wheelchair. Any elderly or disabled person can request service from STS.

#### **Visiting Nurse Association of Manchester and Southern New Hampshire**

This agency has two community service programs which provide transportation to its clients. The Parent-Baby Adventure program runs two passenger vehicles which

transport roughly 40 families to parenting groups each week. Second is the Child Care Center which transports 30 school age children twice daily from before-school programming and to after-school programming. During off peak hours, this vehicle is used for field trips.

#### **The William J. Moore Center**

This public non-profit agency transports disabled individuals to and from job sites, and offers service free of charge. The total fleet size is 36 vehicles, consisting of eighteen wheelchair vans, ten 8-passenger vans, three 15-passenger vans, three cars, one cargo van, and one truck.

#### **YMCA/YWCA**

The YMCA/YWCA owns three (3) 15-passenger vans and two (2) school buses that are used for after school programs in Manchester and Goffstown and for special activities, day care, and summer camp. Additionally, three (3) MTA school buses are diverted daily and are used to transport children from schools in Manchester to the YMCA/YWCA for after school activities. Approximately 130 to 150 children are transported to the YMCA/YWCA everyday.

#### **Taxicab Services**

Two Manchester-based companies, comprised of approximately 22 vehicles, provide taxi services. Their fares are regulated or “set” by the city of Manchester as follows:

- first 1/6 mile = \$3
- each additional 1/6 mile = \$0.25
- each additional passenger = \$0.25
- waiting time = \$0.25 each minute

#### **Queen City Taxi**

This company will travel to any destination providing trips originate in Manchester. Shared rides and fares are allowed.

#### **Round the Clock Dispatch Inc. - Town & Country Taxi, West Side Taxi, and Radio Cab**

Operating out of the same location and under common ownership, these taxis will travel to any destination provided trips originate in Manchester. Passengers can share rides but not fares.

#### **Intercity Carriers**

##### **Concord Trailways**

This carrier provides service between Concord, New Hampshire and Boston, Massachusetts, including stops at Manchester and Londonderry. However, Manchester and Londonderry are not located on the same line. Instead, they are served by different and distinct routes. Monday through Friday, there are thirteen (13) southbound trips and eleven (11) northbound trips serving Manchester and nine (9) southbound trips and nine

(9) northbound trips serving Londonderry. On the weekends there are ten (10) southbound trips and ten (10) northbound trips serving Manchester. Londonderry has no service on the weekends.

#### **Greyhound Vermont Transit Lines**

This carrier provides daily service between Hanover, New Hampshire to Boston, Massachusetts, including stops at Manchester. There are a total of seven (7) southbound routes that stop in Manchester: four (4) of these stop at both the Manchester Transit Center and the Manchester Airport, while the remaining three (3) stop only at the Manchester Airport. There are six (6) northbound trips daily: five (5) stop at both Manchester Airport and the Manchester Transit Center, and one (1) stops only at the airport. In Hanover, many of these buses have connections to Burlington, Vermont, and Montreal, Quebec.

#### **Peter Pan Trailways**

This carrier offers somewhat limited service between Concord, New Hampshire and Worcester, Massachusetts, with stops in Manchester. One northbound and one southbound trip is provided on a daily basis.

## CHAPTER 2: QUALITY OF EXISTING SERVICE

All previously prepared SRTPs called for the monitoring of system performance in a number of ways. Monitoring has been implemented by the MTA and the SNHPC utilizing the proposed procedures or variants thereof. The MTA maintains a complaint log and investigates all complaints received in relation to transit service. In lieu of the recommended quarterly load counts, the MTA maintains monthly ridership data by run assignment for weekday and Saturday operations. By aggregating this data, individual route profiles of passenger loads can be developed for analytic purposes.

Schedule adherence checks have been performed by SNHPC, as part of the Annual Performance Review, as well as by the MTA street supervisor (the last totally documented schedule adherence check was performed in 1995). Cost-revenue projections for the MTA are updated by SNHPC utilizing the most current ridership and cost factors. The results of these monitoring activities are either incorporated into the Annual Performance Review or used as input for special studies.

### Performance Criteria

At the present time, the following five criteria are used to evaluate services provided by the MTA:

- Reliability
- Passenger loads
- Transfer coordination
- Operating speeds
- Complaints

### Evaluation of Service Performance

#### Schedule Adherence

The last totally documented schedule adherence check was conducted in late August and early September of 1995 by SNHPC staff. The criteria for on-time operation were:

#### Departures

- “on-time” - zero to four minutes behind schedule
- “late” - five or more minutes behind schedule
- “early” - one minute or more ahead of schedule

#### Arrivals

- “on-time” - less than five minutes ahead of schedule and less than three minutes behind schedule
- “late” - more than three minutes behind schedule

- “early” - more than five minutes ahead of schedule

The survey only covered downtown timepoints. The Elm Street/Wall Street bus stop and Hanover Street bus stop were chosen as observation points for time checking. Arrivals were observed at the Hanover Street bus stop while departures were observed at the bus stop at the corner of Elm and Wall Streets.

Of the 150 departure timepoints operated, 132 (88%) represented vehicles on time and 18 (12%) represented vehicles running late. There were no instances of early departures, which is very good. Of the 102 arrival timepoints operated, 16 (15.69%) represented vehicles running ahead of schedule, 68 (66.67%) represented vehicles on time, and 18 (17.65%) represented vehicles running late.

Early arrivals (five minutes or more) occurred 16 times out of 252 total observed trips, or 6.3% of the time. Early arrivals usually suggest that a trip has room for a reduction in time or for expansion. Fifteen of the sixteen early arrivals occurred during the morning. This corroborates the bus drivers’ anecdotal data, in which they claim that it is easiest to stay on schedule during the morning.

On-time arrivals (less than five minutes ahead of and less than three minutes behind schedule) and on-time departures (less than five minutes behind) occurred 200 times out of 252 total trips, or 79.4%, which is very good.

Late arrivals (three minutes or more) or late departures (five minutes before) occurred 36 times out of 252 total observed trips (14%). The late trips were evenly (16 AM and 20 PM trips) distributed throughout the day. Route 33 South Beech (7 occurrences) and Route 25A Valley via Taylor (8 occurrences) had disproportionate amounts of the late trips when compared to the other routes. Both of these routes serve the Mall of New Hampshire, located on South Willow Street. In total, 41% of the late trips occur on the runs that service the Mall of New Hampshire. Past anecdotal data from the bus drivers has indicated that traffic from the Mall of New Hampshire and congestion on South Willow Street cause the most schedule adherence problems throughout the system. The survey appears to bolster the drivers’ claims. A new schedule adherence check should be conducted soon, as the routes and schedules have changed considerably since the last check. The route changes implemented in 1998 resulted in a centralized transfer point in downtown Manchester. In theory, this approach better enables transfers, though the traffic delays cited above by the drivers in 1995 still seems to be somewhat of an issue in terms of arriving on time to coordinate transfers.

In the past, the MTA has utilized a street supervisor to conduct its on-street schedule adherence checks, though this position is presently vacant. MTA management considers as acceptable a deviation of 0 to 3 minutes late for departure. The street supervisor monitors Central Business District departures and arrivals, as well as at intermediate points.

## Complaint Log

The MTA currently maintains a customer complaint/commendation log. In FY 02, approximately 100 complaints were filed regarding such operating issues as schedule adherence, unsafe driving, and passing up passengers. This log allows the MTA to track the types of complaints, the individual drivers or specific routes involved, and any action that needs to be taken, such as calling the complainant back or disciplining the employee.

This log also allows the MTA to track commendations by the public for the employees. Such commendations refer to courteousness, on time performance, or the comfort of a ride. In FY 02 approximately 4 commendations were filed.

MTA supervisors have taken a proactive approach in order to reduce the amount of complaints. Street monitoring is performed weekly, and any issues that arise are addressed immediately.

The SNHPC includes an analysis of complaints in the Annual Performance Review. An important aspect of complaint analysis involves “problem” area identification and resolution. Complaints received by the MTA are categorized in one of the following areas:

- Operations
- MTA policy
- Personnel perception

Past trends indicated most complaints dealt with operations, personnel, and policy in descending order.

## Operating Speeds

The average speed for individual routes was calculated on weekday revenue miles and service hours. The overall average speed for the total system has fluctuated over time. In 1993, it was 13.3 mph; in FY1998, it was 15.65 mph, and in FY2002, it was 13.39 mph. Routes having the highest speeds were similar to those identified in 1984 and 1993, though some changes are notable. The CCT and Airport routes, while still relatively fast, have a lower operating speed than in earlier studies. The majority of the routes average between 10 mph and 13 mph. The routes with the fastest average speed were Front St/Hackett Hill, CCT, Lake-Hanover, South Beech, and Airport. The routes with the lowest operating speeds were Bedford Mall, Page-Elliott, Pinard/Bremer, and South Willow. See the Table 25 and Figure 19 for more detailed analysis.

	<b>Weekday Miles</b>	<b>Weekday Operating Hours</b>	<b>Average Speed (mph)</b>
1. Airport	63.2	3.92	16.14
2. Lake – Hanover	169	10.83	15.60
3. Goffs Falls	141.7	10.83	13.08
4. Page – Elliot	102	9.00	11.33
5. Pinard/Bremer	111.8	9.67	11.57
6. Gossler/St. Anselm	117	9.67	12.10
7. Veteran’s Hospital	117	9.67	12.10
8. South Willow	114.4	9.75	11.73
9. DW Highway/River	135.6	10.00	13.56
10. Valley/Weston	163.2	12.00	13.60
11. Front/Hackett Hill	152.4	7.92	19.25
12. S. Beech/Mall NH	156	10.33	15.10
13. Bedford Mall	116.6	11.00	10.60
CCT	32.4	1.83	17.70
<b>Total</b>	<b>1692.30</b>	<b>126.41</b>	<b>13.39</b>

### **Passenger Revenue Versus Operating Cost**

None of the routes on the MTA system produce revenues that equal or exceed the cost of operating service. The net deficit of an individual route basis is based on the difference between revenue and cost on both a weekday and Saturday basis. Revenue is determined by the product of average \ ridership and an average fare of \$0.601. Expenditures were determined by multiplying revenue miles, either weekday or Saturday, by the marginal cost of providing service on a per mile basis, \$4.743. Both of these figures were calculated earlier in Chapter 1 (see Tables 19 and 20). Tables 26 and 27 and Figures 20 and 21 indicate operating losses on an individual route basis for both weekday and Saturday service. The routes are ranked in order of lowest to highest cost-revenue ratio.

<b>Route</b>	<b>Cost – Revenue Ratio</b>
3. Goffs Falls	.031
CCT	.035
11. Front St	.053
5. Pinard/Bremer	.064
1. Airport	.074
6. Gossler/St. Anselm	.079
9. DW Highway/River	.081
12. So. Beech	.095
7. V.A. Hospital	.098
2. Lake/Hanover	.096
10. Valley/Weston	.112
4. Page/Elliot	.104
8. S. Willow St	.105
13. Bedford Mall	.169

**Table 27. Saturday Revenues and Costs, FY 2002**

Route	Cost – Revenue Ratio
11. Front St	0.027
5. Pinard/Bremer	0.041
6. Gossler/St. Anselm	0.047
7. V.A. Hospital	0.051
9. DW Hwy/River Rd	0.063
10. Valley/Weston	0.087
12. So. Beech	0.122
8. S. Willow St	0.122
4. Page/Elliot	0.133
13. Bedford Mall	0.169

Weekday routes having the greatest daily operating losses in FY2002 were Lake-Hanover (\$724.76), Valley/Weston (\$686.73), Front Street (\$684.69), and South Beech (\$669.41). Weekday routes exhibiting the lowest operating losses were CCT (\$148.30), Airport (\$277.36), and Page/Elliot Hospital (\$433.61). The order of the results is very similar to the 1993 and 1998 study findings; the main difference between those previous years and FY2002 is that the operating losses are greater for every route.

System-wide, weekday operating costs were \$8026.58. Receipts from revenues totaled \$512.07. This results in a daily operating deficit of \$7,514.51.

Saturday routes having the greatest operating losses were Valley/Weston (\$588.94), South Beech (\$499.71), and Front Street (\$468.83). These results were very similar in ranking to the 1993 and 1998 study findings. Routes having the lowest operating losses were Page/Elliot (\$314.54), Gossler/St. Anselm (\$325.43), and South Willow (\$329.80).

The total cost of providing Saturday service was \$4,462.21 (a marked increase from 1998). Receipts from revenues total \$390.65. This results in a daily operating deficit of \$4071.56.

When compared with the 1993 and 1984 study results, the revenue, costs, and operating deficit trends have changed, sometimes in dramatic fashion. Weekday revenues dropped by 23.6% while Saturday revenues fell by 14.6 percent. Weekday costs increased by 28% and Saturday costs fell by 26% between 1984 and 1993. However, the trend somewhat reversed itself between 1993 and FY1998. Weekday costs decreased by 0.5% while Saturday costs rose by 28.3 percent. Between 1984 and 1993, weekday operating deficits increased by 104% while Saturday operating costs declined by 9 percent. Again, the trend reversed from 1993 to 1998. Between 1993 and FY 1998, the weekday-operating deficit had grown only by 3.9% while the Saturday deficit rose by 36.1 percent.

Between 1998 and 2002, revenue has decreased and costs have increased for both weekday and Saturday service. Weekday revenues decreased nearly 40%, and costs rose

over 16%; the daily operating deficit rose nearly 24%. Saturday service revenues decreased, but not as extremely, falling less than 4%. Costs, however, rose almost 60%, with the deficit reaching a nearly 65% increase. See Tables 28 and 29 for details on FY2002 revenues and costs per route.

Figure 22 indicates deficits on a per passenger basis for all weekday routes. They are higher than the figures from the 1999 SRTP. Weekday routes having the greatest deficit per passenger were Goffs Falls (\$18.24), CCT (\$16.77), and Front Street (\$10.96). These three routes also ranked worst in terms of deficit per passenger in the 1999 SRTP, though the actual deficits were lower. Weekday routes exhibiting the lowest operating losses per passenger were Bedford Mall (\$3.10), and Valley/Weston (\$4.89), and South Willow (\$5.26). These results were somewhat similar to the 1999 study findings.

Figure 23 indicates deficits on a per passenger basis for Saturday service. Saturday routes having the greatest deficit per passenger were Front Street (\$21.74), Pinard/Bremer (\$14.14), and Gossler/St. Anselm (\$12.34). These results were similar to the 1993 study findings; however, the deficit size has increased markedly. Routes having the lowest deficit per passenger were Bedford Mall (\$3.12), Page/Elliot (\$4.08), and South Beech and South Willow, both at \$4.49. These results were somewhat similar to those from the 1999 study, except that the deficit is higher now, though it has increased at a lesser rate than weekday deficits.

Figure 24 and 25 indicate deficits on a per mile basis for weekday and Saturday routes. The per mile deficit for all routes during weekday service is within the \$3.00 range. The range is much wider, however, for Saturday service. The routes having the greatest weekday deficit per mile were Goffs Falls (\$4.63), CCT (\$4.62), Front Street (\$4.56), and Pinard (\$4.52). It is to be noted that these routes are the longest in length, mileage wise, of the weekday bus lines; logically it follows that the longer the line, the greater the deficit will be. The routes having the lowest weekday deficits were Bedford Mall (\$4.16) and Valley/Weston (\$4.36). The routes having the greatest Saturday deficit per mile were Front Street (\$4.65) and Pinard/Bremer (\$4.60). The routes having the lowest Saturday deficit per mile were Bedford Mall (\$4.16) and Page/Elliot (\$4.29).

Tables 28 and 29 indicate revenue per mile for weekday and Saturday routes. This is a measure of route productivity. On weekdays, Bedford Mall (\$0.81) and Valley/Weston (\$0.54) produced the greatest revenue per mile, while Goffs Falls and CCT produced the lowest revenue per mile (at \$0.15 and \$0.17 per mile, respectively). The ordering is similar to the 1998 figures, though the deficits are much greater; the deficit increased for every route. On Saturdays, Bedford Mall produced the greatest revenue per mile (\$0.80) followed by Page - Elliot (\$0.63), while Front/Hackett Hill produced the lowest revenue per mile (\$0.13). These results are similar to the 1993 figures.

**Table 28. Weekday Revenue per Mile, FY1998-FY2002**

Route	1998	2002	% Change 1998-2002
6. Gossler/St. Anselm	\$1.00	\$0.38	-164.07
3. Goffs Falls	\$0.29	\$0.15	-89.95
CCT	\$0.29	\$0.17	-74.98
11. Front/Hackett Hill	\$0.36	\$0.25	-43.85
12. S. Beech/Mall NH	\$0.63	\$0.45	-39.41
8. South Willow	\$0.69	\$0.50	-37.72
4. Page – Elliot	\$0.65	\$0.49	-32.13
5. Pinard/Bremer	\$0.40	\$0.31	-28.95
9. DW Highway/River	\$0.47	\$0.39	-21.89
13. Bedford Mall	\$0.94	\$0.81	-16.65
2. Lake – Hanover	\$0.52	\$0.45	-14.41
7. Veteran’s Hospital	\$0.53	\$0.46	-14.37
1. Airport	\$0.40	\$0.35	-12.87
10. Valley/Weston	\$0.48	\$0.54	10.3
<b>Route Average</b>	<b>\$0.55</b>	<b>\$0.41</b>	<b>-34.18</b>

**Table 29. Saturday Revenue per Mile, FY1998-FY2002**

Route	1998	2002	% Change 1998-2002
7. Veteran’s Hospital	\$0.53	\$0.24	-119.14
5. Pinard/Bremer	\$0.40	\$0.20	-104.48
6. Gossler/St. Anselm	\$0.40	\$0.22	-79.27
11. Front/Hackett Hill	\$0.15	\$0.13	-16.69
10. Valley/Weston	\$0.48	\$0.41	-16.34
8. South Willow	\$0.61	\$0.58	-5.37
9. DW Highway/River	\$0.31	\$0.30	-3.4
13. Bedford Mall	\$0.82	\$0.80	-2.17
12. S. Beech/Mall NH	\$0.56	\$0.58	3.24
4. Page – Elliot	\$0.43	\$0.63	31.93
<b>Route Average</b>	<b>\$0.47</b>	<b>\$0.41</b>	<b>-14.57</b>

## **CHAPTER 3: PUBLIC TRANSPORTATION NEEDS**

The needs assessment study for public transportation in Manchester is composed of six parts:

### **Service Coverage**

The geographic areas of Manchester in excess of one quarter (1/4) mile from existing transit service are identified, including the number of dwelling units and population within these areas, using Census 2000 data, broken down to the Census Block level; this is the most detailed spatial data available.

### **Service in Relation to Transit Dependent Populations**

Geographic areas in Manchester having significant numbers of elderly residents, low income populations, low rates of automobile ownership, and high housing density are identified and a comparative analysis with MTA routes is made.

### **Service Comparison to Major Trip Attractors/Development Factors**

Existing MTA routes are analyzed in relation to factors related to demand for transit service. In an effort to determine the adequacy of general accessibility to transit service, each traffic zone in Manchester is compared with current routes.

### **Transit Surveys**

Results from two surveys are analyzed. A 1997 telephone household survey and a 1999 on-board rider survey were conducted to elicit marketing and socio-economic information. The results are summarized in terms of: profiles of the user/non-user, estimates of latent demand, destination choices, fare analyses, and actions that might encourage increased transit usage.

### **MTA Plan for Complementary Paratransit Service**

The SRTP is discussed in terms of: the requirements of the Americans with Disabilities Act, categories of disability in relation to ability to use transit service, current and future demands for service, planned modifications to fixed-route service, and planned modifications to StepSaver service.

### **Employer Survey**

The results of a study of major employers in the Manchester area are discussed in relation to: employees' use of public transportation, transportation allowances on behalf of employers to employees using public transit, and contracts for route extensions between employers and the MTA.

### **Service Coverage**

Corridors for transit service are considered to extend one-quarter mile from each established route, thereby limiting a resident's walk to four blocks, or approximately between five (5) and eight (8) minutes. Upon visual inspection of the MTA routes, it was

been calculated that approximately eighty-five (85) percent of Manchester's population lies within one-quarter mile of MTA service. Thus, MTA routes are accessible, on foot, to approximately eighty-five (85) percent of the population. Some areas of the city do lie beyond existing transit service; they are located in the northwest, northeast, and southeast fringe areas of Manchester. These areas are indicated in Figure 26.

In an effort to more accurately measure the community not served by current MTA fixed-route service (lying more than  $\frac{1}{4}$  mile from bus routes), population and dwelling unit estimates for traffic zones not well served by transit were developed. Traffic analysis zones 54, 55, and 119 are not served by transit at all. Using the geographic scale of US Census Blocks, greater detail and accuracy was attainable than by using other, larger, spatial areas as had been done previously (such as Traffic Analysis Zones and Census Tracts). Each Census Block was examined, and the proportion of its development within one quarter ( $\frac{1}{4}$ ) mile of transit was estimated in terms of a percentage. Portions of the eastern, northeastern, northwestern, and southern areas of Manchester are not well served by transit. It is estimated that 15.8% of Manchester's population, and 14.2% of its housing units, are unserved by transit.

Figure 27 illustrates the Census Blocks that have significant amounts (i.e. greater than 100 persons) of their population unserved. This maps displays where the unserved population is concentrated spatially.

When compared with the figures from the 1993 and 1999 SRTPs, the percent of Manchester's population unserved by fixed-route service is somewhat higher. The 1993 SRTP estimated that 9.3% of Manchester's population and 9.2% of its dwelling units were unserved. However, the figures from the 1993 SRTP were determined from 1990 Census tracts while the 1999 plan used data arranged by smaller traffic analysis zones, not by census tracts. Using the 1997 SNHPC socioeconomic data, the 1999 plan found that 12.4% of the population and 12.3% of the dwelling units in 1990 were unserved by transit. Analysis by traffic zones, comprising smaller geographic units, provides a more detailed and segmented methodology than analysis by the geographically larger census tracts. For this plan, a still smaller spatial area, the census block, was used along with data from the 2000 US Census. As such, the estimates of 15.8% of the population and 14.2% of housing units being unserved can be seen as quite reliable.

The census block analysis performed above provides a detailed estimation of unserved population. In projecting unserved transit populations, the data available does not allow for such precision. Using the SNHPC's 1997 report *Socio-Economic Data for the Southern New Hampshire Planning Commission Region*, the estimates are made for future percentages of the non-transit served population. This projected population change is done by traffic analysis zone (see Figure 28 for the spatial extent of the zones). Keep in mind that the numbers below were calculated with slightly dated data; their accuracy may not be what it could be.

<b>Table 30. Projection of Manchester's Population and Housing Units Unserviced by Transit</b>								
TAZ	2000		2005		2010		2015	
	Pop	HU	Pop	HU	Pop	HU	Pop	HU
1	1699	785	1820	874	1922	963	2007	1006
2	503	162	516	169	527	176	537	183
8	777	292	820	317	857	343	886	369
39	629	226	639	232	647	238	654	244
40	725	258	768	282	804	307	834	331
52	836	485	1466	508	1500	530	1528	553
54	349	180	456	253	547	326	621	399
55	1784	789	1936	894	2063	999	2169	1105
115	189	63	198	68	205	73	211	78
117	631	236	663	256	690	275	712	294
119	1274	488	1393	560	1494	631	1577	702
120	695	455	696	256	697	256	698	257
Total	10089	4419	11369	4667	11951	5115	12431	5520
City Total	106137	44008	108889	45843	111204	47678	113119	49513
% Unserviced	9.51	10.04	10.71	10.18	10.75	10.73	10.99	11.15

As visible in Table 30, the population growth is projected to occur at a relatively high rate in the outer areas of the city. The projections are lower than the estimate made earlier in this chapter because of differences in the data, but the trends are clear: projected over time, the percentage of Manchester's population and housing units that are unserved by transit increases. Though this level of increase is not dramatic, it is relevant. The rate of growth in Manchester's outer areas is greater than in other parts of the city.

A fair amount of recent residential growth has been occurring in some of these outlying areas. Expansion of MTA service has occurred to the northeast section of Manchester due to the relocation of the Lahey Hitchcock Clinic in the area. Until such time as density of development increases in other areas of Manchester, it is not economically feasible to extend existing transit routes to them.

## **Service in Relation to Transit Dependent Populations**

### **Service in Relation to Elderly Concentrations**

The 2000 U.S. Census reported that 12.9% (13,825 persons) of Manchester's population are aged 65 years or older. Figure 29 indicates by 2000 Census Tracts the proportion of the elderly population. Below, this data is displayed in text:

1.02	15.36%
2.01	15.83%
2.02	15.54%
6	16.02%
7	17.87%

8	18.24%
11	17.07%
12	22.10%
22	18.16%
25	19.32%

Collectively, these aforementioned tracts contain 38.69% of Manchester’s population aged 65 years or older.

The Census Tracts with concentrations of elderly population generally border the downtown area or are on the West Side; both of these areas tend to be well served by MTA routes. Access to shopping centers, recreational facilities, parks, cultural centers, hospitals, and other medical facilities is excellent. Some of the tracts contain public housing sites for the elderly, which are managed and operated by the Manchester Housing Authority. Five such high-rise developments are discussed in the following paragraphs.

The Kalivas and O’Malley buildings are located on Chestnut Street, between Central and Spruce Streets (Census Tract 14). These buildings contain 200 units with approximately 250 residents. Access to all MTA routes is readily available on Elm Street, which is two blocks west of these buildings; these buildings are served directly by the South Willow route.

The Pariseau Building is located at 55 Amory Street (Census Tract 3). It has 100 units and approximately 130 residents. This building is directly on the Gossler/Amory route. Weekday service is provided on an hourly basis. Saturday service is provided on an hourly basis starting at 8:35 AM.

The Reverend Burns high-rise apartment complex is located at Granite Square, which is the intersection of Granite and Main Streets (Census Tract 20). The building contains 120 units and has approximately 150 residents. The Pinard, Gossler/Amory, and Bedford Mall/Boynton Street routes directly serve the complex.

The Governor Hugh J. Gallen apartments are located at 200 Hanover Street (Census Tract 14). They consist of 94 units and have approximately 120 residents. The Lake via Hanover Street route provides direct service to the site. Access to all other MTA routes is readily available on Elm Street, which lies two blocks to the west.

The travel needs of the elderly have been documented in other studies and are discussed later during the non-user survey and the Plan for Complementary Paratransit Service sections of this needs assessment survey. Factors that play a significant role in the use and non-use of transit by the elderly population include income level, automobile availability, and physical ability. Seniors generally tend to use the bus for shopping purposes as well as for other personal business (medical appointments, etc.). Senior citizens tend to be more dependent on public transportation due to economics (low incomes) and physical impairments, both of which make owning and operating an

automobile more difficult. The marital status (widow, widower, etc.) also factors into this transit-dependency for senior citizens.

Reduced fares on the fixed-route service (\$0.45 per ride normally and \$0.35 per ride on Wednesday) are available every day to seniors who possess an approved MTA identification card. MTA fixed-route service is completely accessible, i.e. lift-equipped. StepSaver service is available for mobility-impaired persons who are unable to use the regular fixed-route service.

This service is available Monday through Friday with departures between 5:25AM and 6:15 PM, and on Saturday with departures between 7:30 AM and 5:00 PM. A fare of \$1.50 is charged for each one-way StepSaver trip.

### **Service in Relation to Low Income Populations**

Previous rider surveys have concluded that the average MTA rider is of relatively low income. Upon an examination of 2000 census tracts, it is evident that Manchester's census tracts which exhibit high poverty rates and low per capita income are relatively well served by transit. These areas tend to be concentrated close to downtown (see Figures 30 and 31).

### **Service in Relation to Housing Density**

Transit service is most viable when it serves areas of high population density. Manchester's most dense neighborhoods (i.e. those with relatively high numbers of housing units per acre) are close to downtown, and also on the West Side. Those areas in the downtown are well served, while those on the West Side have a slightly lesser level of service (see Figure 32).

### **Service in Relation to Vehicle Ownership**

Again, the central neighborhoods are lower than the norm in terms of vehicles per household and vehicles per person (see Figures 33 and 34). All of these analyses exhibit the importance of properly and adequately serving the downtown population.

## **Service Comparison to Major Trip Attractors/Development Factors**

Available fixed-route service was analyzed to determine the extent to which it meets current demands created by the following:

- major shopping facilities
- government facilities
- major employers (200 or more employees)
- population density
- employment density
- social and medical services

In order to identify unmet needs, each of Manchester's 68 traffic zones was studied to determine the existence of the above trip generators and/or attractors and access to public transit. A detailed tabulation is contained in Appendix B. Figure 35 displays the Traffic Analysis Zones (TAZs) in relation to the coverage of the existing transit service.

Overall, Manchester's main origin and destination points are well covered by existing fixed-route transit service. A small number of Traffic Analysis Zones were completely unserved (TAZs 54, 55, 119), and these are relatively remote, with low employment and population densities.

Apart from the fully served and fully unserved TAZs, there are several areas which are only partially served, with their transit access being ranked either fair or poor. These TAZs are as follows: 1, 2, 39, 40, 52, 53, 56, 63, 117, and 120; these zones' deficiencies are noted as follows:

Traffic zone 1 is served by Route 7-Veterans Hospital, but only along Wellington Road and Edward J. Roy Drive. Transit service is inconvenient for most of the residences in this zone, which are not located along Edward J. Roy Drive or Wellington Road; this includes some new, relatively dense development. Nonetheless, there are no major zone attractors that are unserved.

Traffic zone 2 is served by Route 7-Veterans Hospital and Route 9-DW Highway/River Road. There are residences in the northern end of the zone behind the VA Hospital where transit access is somewhat inconvenient; this area is not too densely settled, however. There are no major zone attractors that are unserved.

Traffic zones 39 (served by Route 7-Veterans Hospital, 2-Lake Ave/Hanover St, and 4-Page St/Elliot Hospital) and 40 (served by Route 2-Lake Ave/Hanover St). Due to the location of the service corridor, the prime beneficiaries of service are residents in the southerly portions of these zones. Access is somewhat inconvenient for residents in the northernmost areas of these zones. There are no unserved major trip attractors in either zone.

Traffic zone 52 is served by Route 4-Page St/Elliot Hospital and Route 10-Valley St/Weston St. These lines run along the western and northern limits of the traffic zone. There are relatively low-density residences in the central and eastern areas of the zone where transit access is inconvenient. There are no major zone attractors that are unserved.

Traffic zone 53 is served by Route 2-Lake Ave/Hanover St. Though the area is well served on the map, the infrequency of the trips made down East Industrial Park Drive make the level of service slightly less than "good". The main zone attractors are all served.

Traffic zone 56 is served by Routes 1-Airport and 10-Valley St/Weston St. There is an underserved residential pocket in the northwest of the zone. No major zone attractors are unserved.

Traffic zone 63 is served by Route 3-Goffs Falls. The southern portion of the zone is completely underserved, though population and employment are quite widely dispersed. There are no major zones attractors that are unserved.

Traffic zone 117 is served by Route 9-DW Highway/River Rd. There are residences in the northern end of the zone, between Arah Street and River Road, and in the central area of the zone, along Campbell Street, where transit access is somewhat inconvenient. There are no major zone attractors that are unserved.

Traffic zone 120 is served by Routes 1-Airport and 3-Goffs Falls. Some of the residents in the easterly part of the zone experience inconvenient access to transit along Brown Avenue. Goffs Falls Rd is unserved, leaving a major employer (USPS Office) without transit service.

## **T R A N S I T   S U R V E Y S**

### **Household Survey**

The Manchester Police Department conducted a survey regarding transit service in Manchester in 1997. Telephone surveys were administered on a ward-by-ward basis to 1,632 persons. The intents of the survey were to obtain a socioeconomic profile of persons not currently using transit, to identify latent demand for transit, and to identify actions that might encourage increased usage of the bus system.

Only about 8% (130) of the respondents listed the bus as their primary mode of transportation. The mode of choice for the overwhelming majority of persons (1,278) was by automobile, followed by walking (67), bicycling (26), and taxi (18). No response to this question was received from 113 people.

### **Socioeconomic Profiles and Transit Observations**

The two primary transit-dependent demographic groups have traditionally been the elderly and young adults. It was discovered that the number of respondents from the over 55-age group from every single one of Manchester's wards was at least thirty percent. These similar distributions cannot be adequately used to make inferences. On the other hand, only 4 wards (1, 5, 6, and 9) had at least 10 percent of their respondents in the 18 or younger age group. Wards 3 and 4 ranked first and second among the wards in terms of transit usage, while Wards 5 and 9 ranked third and fourth highest. Contrary to this, wards 1 and 6 were among the city's least transit-dependent wards (see Figure 36 for Political Ward and MTA bus routes map).

From the surveys, it appears that the presence of bus lines suggests an increase in transit usage. The greatest percentage of respondents using transit occurred in Ward 3, which is the ward with the highest concentration of transit routes. A transit mode share greater than 10 percent was also reported in Wards 4 and 5, in which 4 bus lines are found. The next highest ridership figure is found in Ward 9, in which 4 bus routes are present. However, ridership is not as high as expected in Wards 7 and 8, in which respectively 4 and 5 bus lines are found. Transit usage greater than 6 percent was found in Wards 1, 10, 11, and 12 despite the presence of less than 4 routes.

Low income is one of the factors that increases the level of transit ridership, so the distribution of transit use with the lowest income group was examined. The survey indicates that there is a direct relationship between transit users and low income. Transit usage among individuals earning between \$5-7 an hour almost directly parallels the percentage of those persons found in each city ward.

The percentage of respondents in wards 3, 6, and 9 earning \$5-7 an hour was nearly the same (approximately 26%). However, transit mode shares in these wards differ greatly. In Ward 3, it is 17%, in Ward 6, it is 4%, and in Ward 9 it is 9%. A possible explanation for this variation is the presence of bus routes in each ward. Thirteen bus lines run through Ward 3, 4 bus lines run through Ward 9, while only 2 bus lines run through Ward 6. Moreover, only the northern portion of Ward 6 is served by transit. Consequently, greater transit dependence is observed in Wards 3 and 9 than in Ward 6, despite similar levels of the population earning \$5-7 an hour.

Transit ridership seems to be a function of the presence of a low income, transit accessibility, and the number of bus lines available.

Overall potential transit usage is low. In fact, the percentages of respondents are inversely proportional to the number of their expected trips by transit; the less the frequency of transit usage, the greater the number of respondents. When pressed, nearly 63% of the respondents indicated that if they were to use transit, it would only be between 1 and 3 times a week. Twenty-one (21) percent said they would use transit between 4 and 6 times a week, 7% said they would use buses 7 to 10 times weekly, while only 6% planned on using transit more than 10 times per week. One reason for this phenomenon is the fact that elderly citizens (who are the population segment most likely to use transit) tend to make fewer trips on average than do the rest of the population.

### **Travel Preferences**

Shopping appears to be the greatest single potential transit trip purpose suggested by the survey. Of the 645 respondents who listed a single trip purpose, 1/3 (215) indicated that they used the bus to go shopping. Following this was: a) work - 30% (194), b) school – 13.5% (87), c) social – 13.5% (87), and d) medical appointments 9.6% (62). This is further substantiated by the top destination choices of the respondents, visible in Table 31. South Willow Street, Hanover Street, Bedford Mall, and Downtown are the destinations most chosen by the survey respondents. These four destinations comprise nearly 2/3 of the total destination responses.

<b>Table 31. Travel Destination Preferences</b>	
<b>Destination</b>	<b>Percentage</b>
South Willow St.	29.4
Hanover St./Stop n Shop	15.6
Bedford Mall/Wal-Mart/Shop n Save	10.6
Downtown and Millyard	10.5
West Side/Front St./Pinardville	8.5
Brown Ave./Industrial Park/Airport	6.1
DW Highway/Shop n Save	5.7
Wellington Rd./Bodwell Rd.	4.9
North River Rd.	3.7
No Response	5.0

### **Estimate of Latent Demand**

873 persons indicated that they would use the bus for more than one reason or purpose if it were available and readily accessible. Hence, 53.5% of the respondents are current or potential riders. Once current primary riders (130) are factored out of this figure, it is determined that 45.3% (740) of the respondents are potential riders.

Improved transit service may also capture another market. Alternate modes of taxi, walking, and biking comprise nearly 7% of the modes chose. This population segment, dependent on alternate modes, may choose to utilize transit for some of their trips if better service was available.

### **On-Board Survey**

The most recent on-board transit ridership survey was performed by SNHPC staff during 1999 (see Appendix A for survey). The total number of riders surveyed was 819.

Riders were asked how they got to the bus on which they were riding. The vast majority (87.30%) replied that they walked, while 9.52% responded that they transferred from another bus. Persons were also asked how long it took for them to walk to the bus stop. Most popular amongst the answers was less than 5 minutes (56.90%). Nearly 17% of the riders indicated that their walking time was between 5 and 10 minutes. The overall average estimate of walking time was 6.9 minutes. It is widely accepted in the transit industry that very few people will walk farther than a quarter mile to catch a bus. A quarter-mile walk is roughly equivalent to 5-8 minutes. A little more than 9% of the riders had greater than 10 minute walks to the bus stops. Hence, the data seems to support the assertion that most people will walk no more than ¼ mile to a bus stop. Ridership may grow if transit coverage is increased, thus bringing more people into the ¼ mile radius surrounding transit corridors.

Riders were asked how they paid for their fare. Most (50.92%) paid in cash, while slightly less than ¼ (21.86%) used a 10-ride ticket, and even less (17.58%) used a monthly pass. Discounted fares (10-ride tickets and monthly passes) are not as heavily

used as they could be. Such a trend has continued up to the present time. In FY1998, approximately 64% of riders paid cash for their fare, about 23% used a 10-ride ticket, and only about 13% used a month pass to pay. Regular fare is 90 cents. An adult 10-ride ticket costs \$8.50, a savings of only five cents per ride. Senior citizens and disabled passengers do not receive any discount if they use an elderly/handicapped 10-ride ticket. A student 10-ride ticket costs \$6.75, which is a savings of 22.5 cents per ride. Monthly passes require 34 trips before the user (adult or senior) derives any financial benefit. One approach to fare pricing is to develop a system in which committed regular riders are rewarded for prepaying fares and occasional riders who pay cash are penalized.

According to the on-board survey, 578 of the 819 people surveyed (70.57%) ride the bus 4-6 days a week. Monthly passes, 10-ride tickets, or transfers were used by 350 riders (42.7%). At least 228 frequent users and most of the 214 less frequent riders did not take advantage of fare discounts. This may be linked to the socioeconomic status of the riders. Out of the 819 riders surveyed, 63.86% indicated that they came from households with an annual income of less than \$30,000; while 22.4% of the overall riders stated that their annual household income was less than \$10,000. In addition to supporting the assertion that most MTA riders are transit dependent, the low income of the majority of riders possibly indicates that the prepayment of fares (monthly passes or 10-ride tickets) is too great of a financial burden to bear. Those riders who appear to be on low fixed incomes are not taking advantage of the current fare discounts. A marketing study is perhaps in order to determine why reduced fares are not utilized. Discounts need to be made more attractive to present and potential transit patrons. A way of enabling low-income persons to take advantage of the current and potential savings inherent in prepaid fares needs to be discovered.

## **MTA Plan for Complementary Paratransit Service**

This plan was prepared to comply with requirements of the Americans with Disabilities Act of 1990 that calls for the provision of comparable paratransit to individuals with disabilities who are unable to use fixed-route service. To use the paratransit service, individuals must fall under one or more of the following three categories:

Category 1: Persons who are unable to board, ride, or disembark from a vehicle even if they are able to get to the stop and even if the vehicle is accessible.

Category 2: Persons who cannot use vehicles without lifts or other accommodations. These persons are eligible for paratransit service if accessible fixed-route vehicles are not available on the route on which they need to travel when they need to travel.

Category 3: Persons with specific impairment-related conditions who cannot travel to a boarding location or from a disembarking location to their final destination.

### **Current and Future Demand**

According to the MTA, as of May 2003, there were 489 individuals registered to use StepSaver service. In the 1992 MTA Plan for Complementary Paratransit Service, a monthly trip-making rate of 4.45 trips was estimated for paratransit patrons.

Population estimates and projections developed by SNHPC for the city of Manchester were utilized to determine the estimated ADA paratransit population. Two distinct demographic categories, citizens under the age of 65 and citizens age 65 or older, exhibit different paratransit trip making patterns. Elderly persons have a much higher incidence of transportation disability than the rest of the population; therefore, a higher percentage of senior citizens are eligible for paratransit service. The 1990 split for these two demographic categories was retained throughout the analysis since no other reliable figures were available.

Nationally, it has been estimated that 1.5% of the total US population is ADA paratransit eligible in Categories 1 and 3 and 1.0% of the total population is paratransit eligible in Category 2. These rates were made using estimates by James F. Hickling Management Consultants as part of the Preliminary Regulatory Impact Analysis of Transportation Accessibility Requirements for the Americans with Disabilities Act together with KETRON Inc.'s survey of New York City and with information contained in The 1978 National Survey of Transportation Handicapped People. The percentage of persons in the United States and Hillsborough County reporting mobility limitation (transportation disability) for both the population under age 65 and the population age 65 and over, were taken from tables in the 2000 US Census entitled Sex By Age Mobility Limitation Status by Employment Status. The information follows in Table 32.

Using this approach, it is estimated that there are 1,184 individuals in categories 1 and 3 and 789 individuals in category 2 in 2003. Using the average monthly trip rate of 4.45, this respectively results in 63,228 trips and 42,132 trips. By 2012, it is projected that there will be 1,229 persons in categories 1 and 3 and 819 persons in category 2. This results in a projected demand of 63,816 trips and 42,504 trips, respectively.

Year	Manchester Population	US Estimates		Hills County		Manchester Total	Monthly Ride Rate	ADA 1&3		ADA 2	
		ADA 1&3	ADA 2	ADA 1&3	ADA 2			Monthly	Annual	Monthly	Annual
2003	107892	1618	1079	1184	789	1973	4.45	5269	63226	3511	42133
2004	108530	1628	1085	1191	794	1985	4.45	5300	63599	3533	42400
2005	108889	1633	1089	1195	796	1991	4.45	5318	63813	3542	42506
2006	109352	1640	1094	1200	800	2000	4.45	5340	64082	3559	42704
2007	109815	1647	1098	1205	803	2008	4.45	5363	64353	3574	42884
2008	110278	1654	1103	1210	806	2017	4.45	5385	64624	3589	43065
2009	110741	1661	1107	1215	810	2025	4.45	5408	64896	3604	43246
2010	111204	1668	1112	1220	813	2034	4.45	5431	65167	3619	43427
2011	111587	1674	1116	1225	816	2041	4.45	5449	65391	3631	43576
2012	111970	1680	1120	1229	819	2048	4.45	5468	65616	3644	43726

The upgrade of MTA fixed-route vehicles to ADA accessibility standards has removed persons in category 2 from consideration for paratransit; hence only citizens in categories 1 and 3 need to be regarded for analysis (however, MTA has indicated that they still give paratransit service to those in category 2). In the 1993 SRTP, it was projected that the MTA StepSaver service would provide 10,123 annual passenger trips by 1997 to meet the demand of individuals in categories 1 and 3. However, annual ridership did not reach this figure; StepSaver ridership was 9,582 for FY1997 and 8,862 for FY1998; this fell to 6,573 in 2002.

StepSaver ridership is projected to decrease over the next several years. The numbers are as follows:

Year	Projected Ridership
2004	5,709
2005	5,326
2006	4,942
2007	4,559
2008	4,177

It should be noted that these projected numbers are based on a simple linear regression of existing trends, and do not incorporate the effects of any proposed improvements to StepSaver service or external influences; therefore, the projected ridership is likely low. Given the uncertainty with the funding streams for Medicaid transportation (see details below), it is with hesitation that these numbers are used, as they illustrate a projected ridership level based on all factors being equal (which is an unlikely proposition).

Presently, the federal transportation bill is being reviewed, and several changes are anticipated, if not certain. Of many proposed changes, one would remove the eligibility of Medicaid funding for non-emergency trips; if this proposed change is enacted, human service transportation providers would be largely unable to continue their service for a number of their clients, and the demand for MTA's paratransit service would increase exponentially. If such a situation occurs, the increased demand and MTA's legal obligations to meet the demand may result in a major crisis. It is recommended that great attention be paid to this matter as it unfolds.

### **Planned Modifications to Fixed-Route Service**

The overwhelming majority of MTA fixed-route vehicles are lift-equipped and have the required information systems installed. Hence, nearly all MTA fixed-route vehicles are ADA accessible, specifically to individuals in ADA category 2.

### **Employer Survey**

In 1997, the SNHPC conducted a mail-out survey to major employers throughout Manchester and the surrounding towns. The survey sought to ascertain the present and projected transportation needs, habits, travel patterns, and attitudes of employers, employees, and potential clients. Nearly sixty of these firms responded to the survey. One of the reasons for conducting the survey was the determination by the Environmental Protection Agency (EPA) that much of the Manchester area contains sub-standard air quality pursuant to federal standards as defined in the Clean Air Act Amendment of 1990. EPA data indicated that over 60% of the pollution is caused by reducing emissions and maintaining certain acceptable standards in future years.

In terms of service organizations, the survey demonstrated that nearly 69% (11 out of 16) of these establishments cater to transit-dependent groups. Hence, an increase in transit service near these organizations might result in an increase in ridership. In terms of improvements, almost 39% of the service organizations asked for longer bus operating hours and about 19% asked for more easily understood bus schedules and information.

The five area colleges were surveyed to determine their transit attitudes. Only New Hampshire College (now Southern New Hampshire University) felt adequately served. A request for longer operating hours came from St. Anselm's College and a request for packet ride services came from the New Hampshire Institute of Art. Notre Dame and St. Anselm's Colleges both stated that they have a parking shortage, which transit usage might help to alleviate. These two colleges also indicated that they would be willing to supplement bus pass packages for students. Notre Dame College has since ceased operation.

Businesses in both Manchester and Bedford were surveyed. Questions on the survey included: name, address, telephone number, and a contact person at the business; business hours; shifts; number of employees; employees' current modes of transportation; parking problems; expected transit usage among the employees if better service is provided; willingness to supplement employee transportation costs; and recommendations and/or suggestions for better serving them. Every one of the 27 responding businesses reported that automobiles are at least one of the modes of transportation used by their employees. However, only 10 of these businesses indicated that their employees use a mode other than automobiles to commute to and from work. Transit bus usage is the most popular alternative mode. Seventy percent of the businesses that reported alternate mode usage indicated bus utilization. Nearly 26% of all

businesses report that their employees utilize transit. Other alternative modes that were received as answers were: walking, bicycling, and carpooling.

Manufacturing and production type businesses, when compared with the other types of businesses, seem to have the highest rate of transit usage among their employees. These industries are situated mainly in the industrial parks – Brown Avenue Industrial Park, East Industrial Park, and industrial parks on Harvey Road in Manchester and on South River Road in Bedford. Also, all of the three businesses that reported constant parking problems are located in these industrial parks. Moreover, transit usage among employees in industrial parks is still higher even when there are no reported parking problems. This indicates that more service to these areas might improve transit ridership.

Employment agencies in Manchester were also surveyed. Questions on the survey included: name, address, telephone number, and telephone number of the company; business hours; number of employees placed annually; employees' modes of transportation to assignments; location of clients' businesses; residence of the majority of applicant/employees; expected transit usage among the employees if better service is provided; willingness to supplement employee transportation costs; and recommendations and/or suggestions for MTA assistance. Three employment agencies responded to the survey. All of these firms reported that their employees utilize their own vehicles to travel to their assignments. The agencies suggest that transit usage may improve among their employees with improved transit service. One agency, Labor World, even suggested promoting rentals by the MTA.

The MTA held meetings and corresponded with representatives from 10 area businesses and service organizations. Reports from meeting with local college officials expressed a need for increased accessibility to their campus. It was felt that both commuting and residential students would benefit from this service. Meetings with employment placement agencies and regional employers indicated a need for public transportation to and from manufacturing type businesses in the area. This would alleviate the transportation problems that most workers experience from unreliable private vehicles, carpools, and expensive options such as paid parking, taxis, and private company-owned van transportation. Reports from meetings with service organizations show that there is a need for improvement in transit service and in the schedules. Specifically, easily understood user-friendly schedules are needed for transit-dependent patrons.

## CHAPTER 4: COST AND REVENUE PROJECTIONS

### Current Level of Service

An aspect of the SNHPC's review of local transit operations includes the preparation of revised cost/revenue projections for the MTA under the assumption that service, in terms of total service mileage, will continue at its present level. Operating costs, ridership, and revenues have been projected for a five-year period, and the impact upon the operating deficit and the revenue-to-expense ratio is shown. The variables considered when generating this latest projection includes the latest complete base year data (2002) and assumptions regarding increases or decreases in annual operating costs, revenues (including farebox and other), fares, and the level of federal and local operating assistance. Elasticity factors used in the projection are industry norms and reflect the impact (upon ridership) of actions taken in terms of increasing fares, elimination of routes, changes in headways, or a combination thereof.

TEA-21 has brought some changes regarding transit funding. Under ISTEA, available FTA funds were divided into capital and operating assistance. Capital assistance, comprising the larger percentage of funding, could only be used for capital expenses and operating assistance could only be utilized for attempts to rectify operating deficits. However, under TEA-21, the MTA can expend the entire FTA annual grant either for operating OR for capital purchases. The only requirements that the MTA must adhere to are: (1) while using the funds for the operating subsidy, it must provide at least a minimum 50% local match; (2) while using the funds for capital purchases, it must provide a local match of 20%. It is unclear what changes will emerge from the imminent reauthorization of the transportation bill. The MTA has a backlog of previously granted, but unused, FTA funds. Because the issue of fleet replacement is becoming critical, it is a good time to tap into these unused resources, especially before they lapse.

The projected costs and revenues are shown in Table 34. Costs have fluctuated tremendously in the recent past as evidenced by Figure 37. They have increased by as much as 24.8% between 1991 and 1992 and have decreased by as much as 19.3% between FY1994-1995. An assumption has been made that costs will increase at the annual rate of 3.0%, after an initial substantial increase in FY 2004 due to large increases in insurance costs and benefits payments.

Throughout the projection period (FY2004 to FY2008), the cost of providing the current level of service is anticipated to increase by \$562,448, a jump of nearly 22%. The costs will rise from \$2,609,890 in FY2004 to \$3,172,338 in FY2008.

Between FY2004 and FY2008, the operating deficit is projected to increase by \$569,532 or 27%. To meet this projected deficit, Federal Operating Assistance is expected to increase by \$234,766 or 25%. Local funding is anticipated to increase at the same rate as the Federal Operating Assistance contribution.

The needs assessment in Chapter Three has indicated that the existing level of service is adequate in terms of coverage, service to elderly concentrations, and service to major trip attractors. Although comments regarding extended geographical coverage, operating hours, days of service, and frequency of service were received as part of the needs assessment, it is unlikely that they can be implemented in the light of existing and projected financial constraints. What needs to be addressed by the policy makers is the means of maintaining the current level of service, either through alternative funding sources or the recently implemented marketing campaign.

## **CHAPTER 5: RECOMMENDATIONS AND THE FIVE-YEAR PROGRAM**

Transportation system management recommendations and the FY1999-2003 capital improvement and operating cost summary are presented in this chapter. System management recommendations cover the following categories

- Marketing
- Monitor System Performance
- Service Adjustments
- Operating Procedures
- Rolling Stock
- Support Facilities
- Personnel
- System Amenities

### **A) Marketing**

**Develop a comprehensive, aggressive marketing program with the intention of increasing the ridership of current “light users” and attracting new riders.**

- Create and distribute widely an updated system map, as well as easily-legible individual route maps. Accompany these maps with route and schedule information. Ensure that these materials are kept current.
- Publicize the MTA’s website, and keep its content current.
- Conduct a public awareness program consisting of: mail-outs (particularly to new residents); posting of advertising materials in public locations having significant “walk-in” trade; expansion and advertisement of ticket and pass distribution locations, including alternative ticket purchasing options such as via mail and internet; adequate marketing materials located on-board MTA vehicles; make greater use of low-cost and no-cost advertising.
- Focus efforts on groups where there is a real potential for ridership growth, such as students and educational institutions, single-automobile households, the elderly, and new arrivals to Manchester.

### **B) Monitoring System Performance**

**The MTA should continue to generate monthly ridership statistics by run and route, and tabulate the daily ridership as initiated in 1992.**

Along with more detailed, periodic study (i.e. 100% load counts, to provide the data inputs necessary for constructing individual route profiles and assessing ridership on a trip-by-trip basis for individual routes), this data is essential for regular system monitoring and evaluation.

**Schedule adherence checks should be performed on a continuing basis during the year as a means of measuring the reliability of service.**

Schedule adherence checks have been performed by SNHPC, as part of the Annual Performance Review, as well as by the MTA street supervisor.

**The MTA Complaint Log should continue to be updated on a daily basis.**

The MTA Complaint Log should continue to be maintained on a daily basis. The reason for so doing is to have a document of the complaint's date; type of incident; name, address, and telephone number of complainant; nature of complaint; and action taken by the MTA management. In such manner, incidents can be better managed, citizen input regarding service can be collected, and good public relations for the MTA can result.

**As part of the SNHPC Annual Performance Review, each MTA route should be analyzed in terms of its productivity, utilizing the inputs gathered in the on-off surveys, the daily passengers tabulations, schedule adherence checks, and monthly ridership statistics by run/route.**

Each MTA route should be analyzed in terms of productivity to identify those trips having very low ridership. Recommendations for service modifications should be made based on this analysis. The review should also include a cost-revenue analysis of each individual MTA route.

### **C) Service Adjustments**

**Actively elicit input from a wide variety of parties to identify system deficiencies and make changes.**

The MTA's recently formed Customer Service Committee has performed substantial work in suggesting route changes and other system improvements. This Committee's work, and the recommendations that emerge from it, should continue. Continue to encourage and consider driver input on routing and scheduling. Encourage suggestions from the general public regarding routing and scheduling. Regularly meet with City of Manchester staff to identify new developments that could support transit.

**Extend service to the main U.S. Post Office, located on Goffs Falls Road, on a by-request basis.**

The main US Post Office is the only major trip destination in the city of Manchester that is not served by transit. Several routes run relatively close to the Post Office before turning on to Auto Center Drive.

## **D) Operating Procedures**

**Monitor the effects of the imminent fare increase.**

The MTA's fares are expected to increase around the time of this document's publication. Fares had previously not changed for years. As such, a continuing examination of the fare increase's impact on ridership is warranted.

**The Request Log for StepSaver Service should be maintained in order to document unserved needs.**

The Request Log indicating those callers who did not receive service when requested needs to be maintained in order to determine how well the MTA is meeting community needs. If possible, the Request Log should contain data on origins and destinations.

## **E) Rolling Stock**

**The MTA should keep pace with the recommended capital purchases schedule.**

Capital purchases are quite aggressive over the next several years. This is programmed in order to keep pace with the necessary replacement of the MTA's aging fleet. After several years of aggressive capital purchases, a return to more regular replacement schedule will occur.

**Ensure that all buses are well maintained (mechanically and cosmetically), safe, clean, and comfortable.**

The proper appearance and function of the MTA's fleet is vital.

## **F) Personnel**

**The MTA should continue its management contract with First Transit.**

In February 2001, the City of Manchester contracted with First Transit to manage the MTA for a period of one year. In February 2003, the contract was extended for five years. Recently, First Transit established a new position of Operations Planning Manager at the MTA.

**The MTA should provide employee training for safety and customer service.**

Where appropriate and possible, the MTA should provide comprehensive training to their employees in order to best serve the needs of the clients.

## G) System Amenities

**Bus route name(s) and number(s) should be present on signs at several key stops, preferably where multiple routes pass. Additionally, individual route maps and schedules for the route(s) should be posted close to these bus signs.**

Responses from surveys have indicated that potential patrons of transit have stayed away from usage due to a perception that the current schedules and routes are very complex. Transit information is not readily available at bus stops for riders to view and interpret. Posting of specific route information would greatly enhance understanding of the routes and schedules. The more user-friendly the system is, the greater the likelihood of increased ridership.

**The MTA should replace its non-permanent bus stop signs with the standard multi-colored permanent bus stop signs. Additionally, the standard signs should be replaced on an “as needed” basis. The MTA should ensure that its bus stop signs are large and highly visible.**

This project has been programmed for FY2004. To maintain a positive image of the MTA and to ensure visibility of the transit system, as well as clearly signify its presence in the community, any missing or damaged signs at MTA-designated bus stops should be replaced on a continuous basis.

**The MTA should continue to erect bus shelters at new locations and continue to maintain existing shelters.**

At the present time, there are more than 30 shelters throughout the city of Manchester. They are washed on a weekly basis and have snow removed from them as required. It is recommended that shelters be erected at selected bus stops currently lacking them. In terms of attractiveness to riders, bus shelters have been among the top choices concerning desired improvements during public surveys. The MTA contracted with Culver Amherst, an advertising company, to replace old shelters with new shelters and manage the advertising that the shelters house, as well as their maintenance. MTA's relationship with Culver Amherst is an attempt to enhance the comfort and convenience levels of the riders.

**Table 35. Five-Year Capital Improvement Program Summary**

<b>Year</b>	<b>Project Description</b>	<b>Total Cost</b>	<b>Remarks</b>
<b>2004</b>	Operating Assistance for Fixed Route Service	\$1.925 million	50:50 Match
	Preventative Maintenance of MTA Fleet	\$250,000	80:20 Match
	Office Equipment	\$25,000	80:20 Match
	Parking Area Paving and Repair	\$100,000	80:20 Match
	Replacement Buses	\$305,000	80:20 Match
<b>2005</b>	Operating Assistance for Fixed Route Service	\$2.120 million	50:50 Match
	Preventative Maintenance of MTA Fleet	\$275,000	80:20 Match
	Replacement of Radio System	\$250,000	80:20 Match
	Paratransit Scheduling Software	\$50,000	80:20 Match
	Replacement Buses	\$1.075 million	80:20 Match
<b>2006</b>	Operating Assistance for Fixed Route Service	\$2.330 million	50:50 Match
	Preventative Maintenance of MTA Fleet	\$300,000	80:20 Match
	Maintenance of Management Software	\$50,000	80:20 Match
	Replacement Buses	\$1.115 million	80:20 Match
<b>2007</b>	Operating Assistance for Fixed Route Service	\$2.570 million	50:50 Match
	Preventative Maintenance of MTA Fleet	\$325,000	80:20 Match
	Replacement Buses	\$840,000	80:20 Match
<b>2008</b>	Operating Assistance for Fixed Route Service	\$2.670 million	50:50 Match
	Preventative Maintenance of MTA Fleet	\$340,000	80:20 Match
	Capital Purchases	\$500,000	80:20 Match