2008 Merrimack Valley Disabled Transportation Study

November 26, 2008

Prepared by the
Merrimack Valley Planning Commission

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Acknowledgements

Introduction

Many people take for granted their ability to get around without any assistance. But what if you couldn't? What if you had to rely on others to help you get to the grocery store, because you couldn't drive and couldn't take the bus? Transportation for the disabled is more than just moving people from one place to another. It is about increasing opportunities for employment and recreation as well as providing access to medical facilities, shopping districts, government offices and more. Providing transportation for the disabled helps break down barriers and enhances people's freedom to move around.

The 2008 Merrimack Valley Disabled Transportation Study is a planning document to help public agencies and private organizations anticipate the transportation needs of the disabled and plan accordingly. The goals of the study are two-fold:

- ♦ Assess future transportation needs for the disabled population in the Merrimack Valley, and

- ♦ Provide Recommendations for short– and long-term changes to the transportation system.

The Disabled Transportation Study is considered to be an evolving document that is subject to future updates when new information becomes available. It is also the first of a coordinated two-part series to address both disabled and elderly transportation needs.

Challenges
Only 3.8% of the disabled population in the Merrimack Valley have signed up to participate in the public-sponsored ADA transportation services offered by the Merrimack Valley Transit Authority. It is likely that many people with disabilities must cobble together a variety of transportation options in order to get to

By 2030, the disabled population will rise 23% overall and 89% among those who are aged 65 and older.

where they need to go including relying on friends and family, paying for private transportation and taking advantage of public transportation options. The difficulties that they face may include:

- Cost of transportation;

- Unavailability of family and friends to help;

- Being at the mercy of other people's schedules, be it doctors, the availability of volunteer drivers, or potentially long waits for public transportation;

- Limited evening and weekend hours of operation of the public transportation system;

- Limitations of public transportation to get them where they need to go;

- Cognitive or hearing difficulties that may make it difficult to understand the transit system or to easily participate in it;

- Weather conditions, such as ice, snow, extreme heat and cold, which make it difficult to use the existing fixed bus system, and

- Lack of knowledge of transportation options.

By 2030, the number of residents in the Merrimack Valley who are disabled will rise 23%, but more importantly, the number of disabled persons aged 65 and older will increase 89%. In the following pages, you will find data on population, ridership and more, intended to inform the public about what to expect in the next 22 years.

Prioritized recommendations with corresponding timeframes and are provided as guidelines for transportation providers, public policy makers and transportation users to plan for future needs, advocate for and implement the service changes.

Highlights:

- The total disabled population ages 5 and older will be 70,169 by 2030.

- The disabled population 65 years and older will increase by 89% by 2030.

- The number of ADA-EZTrans rides provided by MVRTA in FY2008 was 36,960.

- Only 454 people took advantage of the EZTrans services in FY2008.

- The cost of providing one ADA-EZTrans ride will increase from $24.41 in 2008 to $46.77 per ride by 2030.

Available Transportation Services Today

According to the 2000 Census, there were 56,930 people who identified themselves as disabled living in the Merrimack Valley region ages five and older. That is 19.5% of the total population in the Merrimack Valley. How do these people get around?

Merrimack Valley Regional Transit Authority
The Merrimack Valley Regional Transit Authority (MVRTA) provides the bulk of the organized transportation services for the disabled in the region.

EZTrans is the MVRTA's special transportation service for the disabled and elderly in the Merrimack Region. It is provided by the MVRTA as well as Assist Medical and Andover Livery. The **ADA EZTrans** service is available to those people with disabilities, either physical or cognitive, which prevent them from using the fixed route bus system. The disability must conform to the definition outlined in the Americans with Disabilities ACT (ADA). All customers wishing to take advantage of this service must apply to be ADA-certified by the MVRTA. One-way fare is $2.00 and reservations must be made at least 24 hours in advance. The service is provided within three-quarters of a mile from any fixed bus route.

Non-ADA EZTrans service beyond the three-quarters of a mile restriction is also available to those customers who are certified as ADA and to those who are 60 years or older. Reservations must be made at least two days in advance. Rates for this service vary from $3.00 to $9.00 depending on the origin and destination points.

In addition to these special services, the MVRTA also provides transportation to customers with disabilities on its **fixed bus route system** (Figure 1). All buses are equipped with wheelchair lifts and stair lowering capacity as well as a talking bus function for those who are visually impaired. The MVRTA does not maintain data on trips provided to disabled

customers on the fixed bus route system to the disabled. At the very least, the people who are using the fixed bus route system are able to get to the bus route to flag down the bus.

The MVRTA provides year-round local fixed route bus service to the communities of Amesbury, Andover, Haverhill, Lawrence, Merrimac, Methuen, Newburyport, and North Andover. Seasonal service to Salisbury Beach and Hampton Beach is provided during July and August. The MVRTA operates its service predominantly in the cities of Lawrence and Haverhill and has one route (Route 41) that goes beyond the region between Lawrence and Lowell.

The fixed route bus service operates on a Monday through Saturday schedule, with no service provided on Sundays or on holidays. The hours of operation vary by type of route and location. Lawrence-based routes typically begin operation at 5:00 AM on weekdays with service ending at 8:00 PM. Saturday bus service in Lawrence begins at 7:00 AM and operates until 7:00 PM.

Haverhill-based routes begin operation at 5:30AM on weekdays and shut down at 6:30 PM. Saturday Service in Haverhill begins at 8:00 AM and runs until 5:00.

The frequency of service also varies by route, with all Lawrence-based routes operating every 25 minutes in peak hours on weekdays and every 45 minutes on Saturdays, and Haverhill-based routes operating every 60 minutes on the weekdays and every 80 minutes on Saturdays.

Finally, the MVRTA provides transportation to customers with disabilities through the **Ring & Ride** service. Ring & Ride is a curb-to-curb service available primarily in those Merrimack Valley communities that do not receive fixed bus route service. The service varies depending on the community and its requested needs. The cost to ride varies from free to $2.00 and customers must make a reservation at least 24 hours in advance.

Senior Centers and Councils on Aging
Every community in the Merrimack Valley has a senior center and/or Council on Aging. The transportation services provided by these agencies varies from community to community. For example, Lawrence, Haverhill and Methuen, the three largest communities, receive the most service from the fixed-bus route network and thus more ADA-EZTrans service (within three-quarter of a mile of a bus route) and therefore do not provide transportation services. Other communities, such as Amesbury, provide a significant number of rides, 786 in FY08. More rural communities, such as Rowley and Newbury, provide more limited services for their residents. These two communities have an arrangement where they share a van. Most communities provide rides to medical appointments as well as grocery shopping and limited recreational activities.

Currently, comprehensive data on the number of rides provided annually by senior centers to people with disabilities does not exist, nor is the definition of disability consistent between communities. However, these organizations provide an important service that fills the gap in transportation needs for the disabled community and the elderly community.

Figure 1

Other Transportation Providers

It is assumed that a large proportion of people with disabilities find alternative sources for transportation including taxis, volunteer programs and transportation from friends and family members. There is no data to account for this portion of the transportation trips made.

Northern Essex Elder Transport (NEET) provides transportation to the elderly by utilizing volunteer drivers, who are often elderly themselves. The program is designed for elders and may have some crossover in providing transportation to people with disabilities, however NEET does not breakdown the number of trips by customer ability (i.e. cane, walker, vision impaired). In general, their customers must be somewhat mobile in order to participate in the program.

Who Uses the Transportation Services?

Currently, demand for transportation services for the disabled can only be measured by the number of people who take advantage of known transportation programs or services and then only by those service providers that keep track of the number of trips provided. Latent demand, or potential untapped demand for services, is unknown. Anecdotally, organizations participating in the study committee have not kept track of the number of people who might use
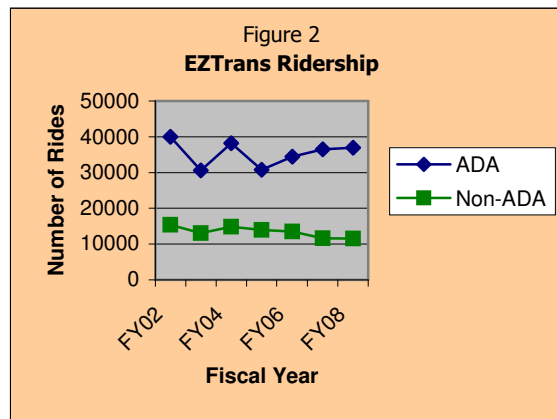
Table A
All EZTrans Service

Year	ADA	Non-ADA	Totals
FY03	30,564	15,357	43,597
FY04	38,161	13,033	53,029
FY05	30,738	14,868	44,705
FY06	34,472	13,967	47,949
FY07	36,501	13,477	48,166
FY08	36,960	11,665	48,458

a transportation service who had not previously been aware of the service.

In the Merrimack Valley region, the MVRTA is the only service provider that maintains data on the number of customers and trips provided.

Since fiscal year (July-June) 2003, the MVRTA has provided 181,680 one-way trips through the combined ADA and Non-ADA EZTrans service. In FY2008, a total of 30,897 trips were provided with 85.5% of those being ADA-qualified trips (Figure 2; Table A).

The MVRTA contracts with two private transportation providers, Assist and Andover Livery, to supplement its ADA and Non-ADA EZTrans service. The combined total of trips for all three service-providers was 48,458 trips in FY2008.

How does this translate into the number of people served? For FY2008, 2236 people were certified ADA to use the EZTrans service and 20% of those people actively utilized the service. The entire disabled population is estimated to be 58,397 for 2008. MVRTA customers comprise only 3.8% of the entire estimated disabled population. That means that the majority of the disabled fit into one or more of the following categories:

- May be disabled, but are still mobile;
- May be severely disabled and unable to participate in the MVRTA's transportation service;
- Qualify for the ADA service, but are unaware of it;
- May be able to obtain rides from friends and family, or
- Utilize other private transportation services, such as taxis.

Figure 2
EZTrans Ridership

A Look at the Future

Knowing exactly what the future holds may require a crystal ball. Just short of that, we are able to make educated estimates about the change in population over the next 20 years, a necessity in order to assess impacts on future transportation services to the disabled community.

Demographics

In order to estimate population growth, MVPC used data from the 2000 Census, the Regional Economic Model and the transportation and the travel demand forecasting model. The Merrimack Valley region will see an overall increase in the disabled population of 23% between 2000 and 2030. More dramatically, the number of disabled people who are 65 and older will increase by 89% in the same period (Figure 3; Table B). Further breaking down the age group 65 and older shows that the number of disabled people between the ages 65-74 more than doubles (Table C).

**Figure 3
Merrimack Valley Disabled Population**
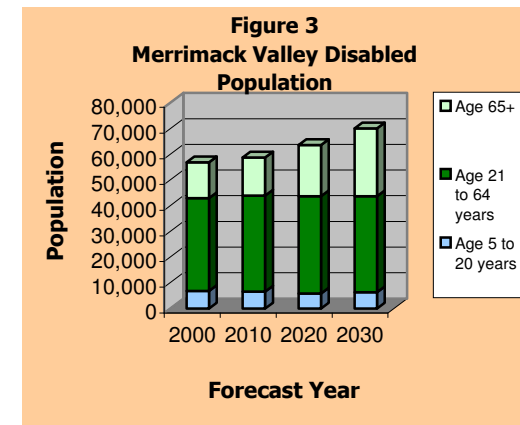
The majority of the disabled population will remain in the cities, however it is interesting to note that the smaller, more rural communities will see larger percentage increases in their disabled population (Table D).

MVPC calculated the number of disabled people who may be living in the Merrimack Valley out to 2030. However, these are

Table B
Merrimack Valley Disabled Population

	2000	2010	2020	2030	% Increase
Population 5-20 Years	74,946	71,911	64,806	70,081	
With a Disability	6,863	6,585	5,934	6,418	
Population 21-64 Years	181,499	188,342	190,112	187,526	
With a Disability	36,098	37,459	37,811	37,297	3%
Population 65 +	35,563	37,476	50,600	67,349	
With a Disability	13,969	14,721	19,876	26,455	89%
Total Population 5+ Years	292,008	297,728	305,518	324,957	
With a Disability	56,930	58,764	63,621	70,169	23%

Table C
Disabled Population Ages 65 and Older

	2000 Census	2010	2020	2030
Population 65-74	18,232	19,330	30,604	37,460
65-74 with a disability	4,977	5,287	8,866	10,512
Population 75+	17,331	18,146	9,996	29,889
75+ with a disability	8,992	9,434	11,010	15,943
Population 65+	35,563	37,476	50,600	67,349
With a disability	13,969	14,721	19,876	26,455

estimates. They are based on some assumptions and have some limitations:

- Demographic estimates are based on the 2000 Census as well as the MVPC's regional economic model and its travel demand forecasting model.

- The figures provided for population are different than those found in the Merrimack Valley Metropolitan Planning Organization's Regional Transportation Plan because population estimates gathered in the recent years show a slowing in the rate of population growth in the Valley.

- The estimates provided are based on current behavior. For example, the estimates do not take into account the number of retirees who may move out of the region to warmer climates, nor the number of baby boomers who may downsize and move to different locations. The estimates also do not take into account the potential impacts of higher gas prices over the next 22 years, which could impact the migration of people moving from the Valley closer to Boston or moving from New Hampshire

	2000	2010	2020	2030	% Increase
Amesbury					
Population 5 to 20 years	3,457	3,317	2,989	3,233	
With a disability	364	349	315	340	
Population 21 to 64 years	9,772	10,140	10,236	10,097	
With a disability	1,627	1,688	1,704	1,681	
Population 65 + years	1,792	1,888	2,550	3,394	
With a disability	771	812	1,097	1,460	
Total Amesbury Population 5+ Years	**15,021**	**15,346**	**15,775**	**16,723**	
Total Amesbury Disabled Population (5+)	**2,762**	**2,850**	**3,116**	**3,482**	**26%**
Andover					
Population 5 to 20 years	7,652	7,342	6,617	7,155	
With a disability	423	406	366	396	
Population 21 to 64 years	17,627	18,292	18,463	18,212	
With a disability	1,481	1,537	1,551	1,530	
Population 65 + years	3,604	3,798	5,128	6,825	
With a disability	1,178	1,241	1,676	2,231	
Total Andover Population 5+ Years	**28,883**	**29,432**	**30,208**	**32,193**	
Total Andover Disabled Population (5+)	**3,082**	**3,184**	**3,593**	**4,157**	**35%**
Boxford					
Population 5 to 20 years	2,174	2,086	1,880	2,033	
With a disability	88	84	76	82	
Population 21 to 64 years	4,419	4,586	4,629	4,566	
With a disability	330	342	346	341	
Population 65 + years	740	780	1,053	1,401	
With a disability	178	188	253	337	
Total Boxford Population 5+ Years	**7,333**	**7,451**	**7,561**	**8,000**	
Total Boxford Disabled Population (5+)	**596**	**614**	**675**	**760**	**28%**

	2000	2010	2020	2030	% Increase
Georgetown					
Population 5 to 20 years	1,702	1,633	1,472	1,592	
With a disability	98	94	85	92	
Population 21 to 64 years	4,365	4,530	4,572	4,510	
With a disability	718	745	752	742	
Population 65 + years	685	722	975	1,297	
With a disability	205	216	292	388	
Total Georgetown Population 5+ Years	**6,752**	**6,884**	**7,019**	**7,399**	
Total Georgetown Disabled Population (5+)	**1,021**	**1,055**	**1,128**	**1,222**	**20%**
Groveland					
Population 5 to 20 years	1,527	1,465	1,320	1,428	
With a disability	115	110	99	108	
Population 21 to 64 years	3,441	3,571	3,604	3,555	
With a disability	536	556	561	554	
Population 65 + years	621	654	884	1,176	
With a disability	248	261	353	470	
Total Groveland Population 5+ Years	**5,589**	**5,690**	**5,808**	**6,159**	
Total Groveland Disabled Population (5+)	**899**	**928**	**1,014**	**1,131**	**26%**
Haverhill					
Population 5 to 20 years	12,622	12,111	10,914	11,803	
With a disability	1,237	1,187	1,070	1,157	
Population 21 to 64 years	34,402	35,699	36,035	35,544	
With a disability	7,225	7,497	7,568	7,465	
Population 65 + years	6,821	7,188	9,705	12,918	
With a disability	2,816	2,968	4,007	5,333	
Total Haverhill Population 5+ Years	**53,845**	**54,998**	**56,654**	**60,265**	
Total Haverhill Disabled Population (5+)	**11,278**	**11,652**	**12,644**	**13,955**	**24%**

Table D Disabled Population Projections Continued

Lawrence	2000	2010	2020	2030	% Increase
Population 5 to 20 years	20,106	19,292	17,386	18,801	
With a disability	2,649	2,542	2,291	2,477	
Population 21 to 64 years	38,412	39,860	40,235	39,688	
With a disability	13,424	13,930	14,061	13,870	
Population 65 + years	6,411	6,756	9,122	12,141	
With a disability	3,017	3,179	4,293	5,714	
Total Lawrence Population 5+ Years	**64,929**	**65,908**	**66,742**	**70,630**	
Total Lawrence Disabled Population (5+)	**19,090**	**19,651**	**20,644**	**22,060**	**16%**
Merrimac					
Population 5 to 20 years	1,429	1,371	1,236	1,336	
With a disability	46	44	40	43	
Population 21 to 64 years	3,565	3,699	3,734	3,683	
With a disability	328	340	344	339	
Population 65 + years	673	709	958	1,275	
With a disability	259	273	369	490	
Total Merrimac Population 5+ Years	**5,667**	**5,780**	**5,927**	**6,294**	
Total Merrimac Disabled Population (5+)	**633**	**657**	**752**	**872**	**38%**
Methuen					
Population 5 to 20 years	9,333	8,955	8,070	8,727	
With a disability	851	817	736	796	
Population 21 to 64 years	25,023	25,966	26,210	25,854	
With a disability	4,724	4,902	4,948	4,881	
Population 65 + years	6,414	6,759	9,126	12,147	
With a disability	2,318	2,443	3,298	4,390	
Total Methuen Population 5+ Years	**45,494**	**46,583**	**48,355**	**51,609**	
Total Methuen Disabled Population (5+)	**7,893**	**8,161**	**8,982**	**10,066**	**28%**

Newbury	2000	2010	2020	2030	% Increase
Population 5 to 20 years	1,473	1,413	1,274	1,377	
With a disability	70	67	61	65	
Population 21 to 64 years	4,043	4,195	4,235	4,177	
With a disability	511	530	535	528	
Population 65 + years	716	755	1,019	1,356	
With a disability	268	282	381	508	
Total Newbury Population (5+ Years)	**6,232**	**6,363**	**6,527**	**6,911**	
Total Newbury Disabled Population (5+)	**849**	**880**	**977%**	**1101**	**30%**
Newburyport					
Population 5 to 20 years	2,980	2,859	2,577	2,787	
With a disability	155	149	134	145	
Population 21 to 64 years	10,883	11,293	11,399	11,244	
With a disability	1,787	1,854	1,872	1,846	
Population 65 + years	2,128	2,242	3,028	4,030	
With a disability	902	951	1,283	1,708	
Total Newburyport Population (5+ Years)	**15,991**	**16,395**	**17,004**	**18,061**	
Total Newburyport Disabled Population (5+)	**2,844**	**2,954**	**3,289**	**3,699**	**30%**
North Andover					
Population 5 to 20 years	6,613	6,345	5,718	6,184	
With a disability	534	512	462	499	
Population 21 to 64 years	15,013	15,579	15,725	15,512	
With a disability	1,843	1,912	1,930	1,904	
Population 65 + years	3,194	3,366	4,545	6,049	
With a disability	1,037	1,093	1,475	1,964	
Total North Andover Population (5+ Years)	**24,820**	**25,290**	**25,988**	**27,744**	
Total North Andover Disabled Population (5+)	**3,414**	**3,518**	**3,868**	**4,367**	**29%**

Table D Disabled Population Projections Continued

	2000	2010	2020	2030	% Increase
Rowley					
Population 5 to 20 years	1,307	1,254	1,130	1,222	
With a disability	64	61	55	60	
Population 21 to 64 years	3,246	3,368	3,400	3,354	
With a disability	362	376	379	374	
Population 65 + years	483	509	687	915	
With a disability	186	196	265	352	
Total Rowley Population 5+ Years	**5,036**	**5,131**	**5,217**	**5,491**	
Total Rowley Disabled Population (5+)	612	633	699	786	**28%**
Salisbury					
Population 5 to 20 years	1,556	1,493	1,345	1,455	
With a disability	147	141	127	137	
Population 21 to 64 years	4,818	5,000	5,047	4,978	
With a disability	956	992	1,001	988	
Population 65 + years	912	961	1,298	1,727	
With a disability	421	444	599	797	
Total Salisbury Population 5+ Years)	**7,286**	**7,454**	**7,690**	**8,160**	
Total Salisbury Disabled Population 5+)	**1524**	**1577**	**1727**	**1922**	**26%**
West Newbury					
Population 5 to 20 years	1,015	974	878	949	
With a disability	22	21	19	21	
Population 21 to 64 years	2,470	2,563	2,587	2,552	
With a disability	246	255	258	254	
Population 65 + years	369	389	525	699	
With a disability	165	174	235	312	
Total West Newbury Population 5+ Years	**3,854**	**3,926**	**3,990**	**4,200**	
Total West Newbury Disabled Population (5+)	**433**	**450**	**511**	**587**	**36%**

Forecasting Transportation Demand

Not everyone who is disabled uses the MVRTA's services. In 2008, there were an estimated 58,397 disabled people living in the Merrimack Valley. Of those, only 454 people or .8% participated in the MVRTA's ADA program. However, for the purpose of this study, the focus remained on demand for MVRTA ADA services because, first, it is the largest organized provider of transportation services and, second, it is the only source of quantifiable data about number of rides and customers. Latent demand, or potential demand, is very difficult to predict. Annual ride demand was calculated using the actual number of rides provided in the years 2000 and 2008. The annual demand per capita of .66 was chosen as the midpoint between 2000 and 2008 and then applied to the years 2010, 2020 and 2030 (Table E).

Table E
Annual Ridership

	2000	2008	2010	2020	2030
Disabled Population	56,930	58,397	58,764	63,621	70,169
Annual Ride Demand	39,951	36,960	38,784	41,990	46,312
Annual Demand per Capita	.70	.63	.66	.66	.66

In addition to ridership demand, MVPC projected the number of people who would potentially participate in the MVRTA's EZTrans program. From the actual 2008 numbers, it is known that the number of ADA-Certified individuals was 2236 people or 3.8% of the population. Of those, 20% (454 customers) actively used the ADA-EZTrans services.

Table F
Certified Users of EZTrans

	2008	2010	2020	2030
Certified ADA	2236	2250	2436	2687
Active Users of ADA-EZTrans	454	457	495	546

Fleet Level Projections

The study committee looked at the capacity for the MVRTA to provide current services to the growing disabled population outlined above. Both the fleet size and productivity level were taken into account when forecasting the number of vans that the MVRTA would need to have available in order to provide service to a larger number of customers at the same productivity level and covering the same geographic area.

Recall in the previous section that ridership demand was calculated for both overall demand as well as under the current service arrangement, in which the MVRTA provides 85.5% of the total demand. The first of the following two tables (Table G) forecasts average fleet size if the current service arrangement were to remain in place.

Table G
**Fleet Level Projections
Based on Current Service Arrangements**

Passengers Served per Vehicle	2008 Actual	2010	2020	2030
	Projected Number of Vans in Use/Week			
1,700 Passengers		20	21	23
2,032 Passengers	13	16	18	19
3,000 Passengers		11	12	13
	Projected Fleet Size Estimates			
1,700 Passengers		22	24	26
2,032 Passengers	15	18	20	22
3,000 Passengers		12	14	15

In FY2008, at peak capacity, which occurs on weekdays, typically 12-13 vans were used, and six on Saturdays. MVRTA had a total fleet size of 15 vans. The total annual number of passengers served by the MVRTA in 2008 was 26,417. Therefore, the number of passengers served per vehicle was 2,032. That number was used as a midline base for the projections for fleet size, both total and in use/week. Fleet size was calculated for 1,700 passengers, 2,032 passengers and 3,000 passengers per year. For example, if the MVRTA were to maintain the current service at the current level of productivity, providing 2,032 trips per van per year, they would need a total van fleet of 18 vehicles in 2010, 20 in 2020 and 22 in 2030.

Table H shows what the fleet size would need to be to accommodate the entire ride demand if there were no additional service providers (i.e. Assist Medical or Andover Livery). The fleet size under the current productivity of 2,032 passengers served per van is highlighted in both tables showing the difference in fleet size that the MVRTA would need under the two conditions. For example, only 22 vans will be needed in 2030 under the current service arrangement. However, if the MVRTA were to provide all rides, they would need 26 vans to maintain their current productivity levels.

Table H
**Fleet Level Projections
Total Demand**

Passengers Served per Vehicle	2010	2020	2030
	Projected Number of Vans in Use/Week		
1,700 Passengers	23	25	27
2,032 Passengers	19	21	23
3,000 Passengers	13	14	15
	Projected Fleet Size Estimates		
1,700 Passengers	26	28	31
2,032 Passengers	22	23	26
3,000 Passengers	15	16	17

Additional productivity levels were examined to demonstrate the number of passengers that would need to be served per hour

under the three scenarios of passengers served per vehicle (Table I). Currently, the MVRTA provides 1.27 rides per hour. If they were to increase the number of passengers served to 3,000 per vehicle, then they would need to increase their productivity to provide 1.88 rides per hour. This information is useful for anticipating scheduling issues as well as anticipating potential fleet increases to accommodate an increasing ridership.

Table I
**Productivity Levels
Rides per Hour**

Passengers/ Vehicle	Rides/Hour
1,700	1.09
2,032	1.27
3,000	1.88

Service Cost Projections

What does all this add up to? In order to provide a general idea of what type of monetary investment will need to be made, MVPC examined the cost of these services. The average gross cost of EZTrans trips – including maintenance, insurance, fuel, etc. – was increased for each time frame using a 3% inflation rate. Three percent was chosen, because it is the rate used in forecasting the increase of transit capital costs in the 2007 Regional Transportation Plan, which is a little more than the 2.75% used by the Executive Office of Transportation and Public Works for operating costs. This was then applied to the number of projected trips to show potential costs associated with providing these trips. The total cost nearly triples by 2030 (Table J). Note that these are estimates and operating costs may fluctuate in the future depending on a variety of factors, such as large increases in fuel costs.

Table J
Projected Costs

	Actual	Projections		
	2008	**2010**	**2020**	**2030**
ALL ADA TRIPS				
Annual Number of trips (all ADA)	36,960	38,784	41,990	46,312
Average Gross Cost Per Trip (STS only; 3% inflation)	24.41	25.89	34.8	46.77
Total Cost	**$902,194**	**$1,004,124**	**$1,461,247**	**$ 2,165,991**
MVRTA ADA TRIPS				
MVRTA Share of Trips	26,417	27,721	30,012	33,101
Average Gross Cost Per Trip (3% inflation)	24.41	25.89	34.8	46.77
Total Cost	**$644,839**	**$ 717,694**	**$1,044,421**	**$ 1,548,133**

Transportation Gaps and Recommendations

In order to provide recommendations for changes in services or new services, the study committee first looked at current gaps in service and potential needs for the future. Recommendations were then drafted with corresponding implementation time-frames.

The committee first looked to the gaps in service identified during the public process in 2007 to create the Coordinated Public Transit-Human Services Transportation Plan. The Coordinated Plan was created to identify the transportation needs for persons eligible to receive transit services under the Job Access/Reverse Commute and New Freedoms federal grant programs and to establish the project selection processes for proposals. The objective is to improve the quality of transportation for the elderly, disabled persons, welfare recipients, low-income persons and people doing reverse commutes by assessing their transportation needs, minimizing the duplication of services and achieving cost efficiencies. The list of needs/gaps in service came from surveys, written comments and verbal comments provided during the process of developing that plan.

Needs/Gaps in Service

- Broaden geographic service area
- Expanded commuter rail schedules
- Evening and weekend hours
- Expansion of Ring & Ride in rural areas

- Debit system similar to MBTA's RIDE
- Accessible/affordable taxi ridership program
- More training of service providers
- Clearer information about services

- On-line scheduling

- Information Technology to help providers know what type of service is needed (i.e. hard of hearing)

- New voucher program

- Improved employment transportation program

Recommendations

Recommendations, shown in the table on the next page, were developed through the discussion regarding needs and gaps in service. Study Committee members requested that both short-term and long-term recommendations be included and span the entire 22 years covered by the study. The time frames included are guidelines only and reflect the desire by the committee to see these changes made either in the short- or long-term. An effort was also made to take into account potential costs associated with the recommendations. In addition, some recommendations span more than one time frame simply to demonstrate the idea that it could take a longer period of time to complete the task. Fleet size increases were included in all time frames from 3-5 years to 10-20 years to reflect the ongoing need to increase the fleet as the disabled population increases. Recommendations are paired with the need that was being addressed. The order of the recommendations indicates the general priority assigned to each recommendation by the majority of members of the study committee.

Of the fifteen recommendations, the top priority was the need to increase marketing of the current ADA bus transit services. The general feeling of the members of the study committee was that many people do not know these services exist or how to use them. The information contained on the MVRTA's web site is difficult to understand, though this should be remedied soon as the agency is currently upgrading its web site. Specific examples of marketing included providing a system map to organizations that work with the disabled both in a brochure and in a format to display.

The second priority, providing MVRTA-run ADA transit service to medical facilities in Boston, echoed many comments received during the creation of the Coordinated Public Transit—Human Services Transportation Plan in 2007. This is a service requested by both disabled and non-disabled people.

Looking forward, the study committee discussed possible new data that could be collected and added to the study. Study committee members encouraged senior centers to track the number of rides that they provide to people with disabilities. In order to compare data, it would be useful if the definition of disabled somehow resembled the MVRTA's guidelines used for certifying customers as ADA, Non-ADA, Temporary ADA and Conditional ADA. Further, it would be useful if organizations who work with members of the disabled community kept track of the number of people they advise on use of the current transportation system, who otherwise have not known about these services.

Finally, MVPC will also look into the possibility of conducting a survey of the disabled community to collect data on the larger population, which could help round out the information provided by the MVRTA and other organizations on what types of transportation people use and how often they use it.

2008 Transportation Plan for the Disabled Population

Service Change Recommendations

Priority	Recommendation	Need Addressed	Timeframe			
			1-2 Year	3-5 Years	5-10 Years	10-20 Years
1	Increase marketing of ADA and non-ADA transit service to potential users. For example, provide a system map both for display and as a brochure to organizations that work with the disabled and who can then easily promote the transportation services.	Clearer information about services.	X	X		
2	Provide MVRTA ADA transit service to medical facilities in Boston. (This would require an increase in fleet size.)	Broaden geographic service		X		
3	Create Free Pass Incentive program for ADA qualified transit users who switch to use the fixed bus system. A travel training program would need to accompany this program.		X	X		
4	Travel Training (statewide program)		X			
5	Create Transportation Information Coordinator/mobility manager position/service to be a one-stop-shop for information on all transportation services for the disabled.	Improved employment transporta-tion program.		X		
6	Work with MBTA to create a more seamless system of getting people to medical facilities in Boston region (coordination between both ADA transit services).	Broaden geographic service		X	X	

Priority	Recommendation	Need Addressed	Timeframe			
			1-2 Years	3-5 Years	5-10 Years	10-20 Years
7	Reassess Ring and Ride service with each community to see how those services can be improved.	Increase Ring and Ride Service	X			
8	Study possible changes/ enhancements to bus routes to extend to new areas for employment.	Improved employment transportation program.		X		
9	Increase, through a marketing program, general public awareness of rights of ADA transit users on bus system.		X	X		
10	Provide funding to organizations to offer transportation services outside the MVRTA regular service (I.e. Sundays, evenings, geographic area). Could also provide funding to taxis.	Extend transit hours and geographic area.			X	
11	MVRTA partner with disabled community to provide driver training for ADA service and fixed bus service.	Driver training.	X			
12	Increase Fleet Size to accommodate growing disabled population			X	X	X
13	Study feasibility of placing additional route markers, in lieu of bus stops, throughout the MVRTA service area.	Clearer information about services.	X			
14	Implement recommendations of route marker feasibility study.	Clearer information about services.			X	
15	Improve commuter rail schedule (double tracking from Reading to Andover)					X

Comments

Comments received from Peter Doyle, MassRehab:

1. Recommendation #10 would be useful for their clients. Many of their clients work late hours, so extending transit hours for the disabled would be very beneficial. At one time, Arlington had a program in which vouchers were provided for people to use taxis after the transit operating hours.
2. Recommendation #6 would be very beneficial, since many of their dental providers are only in Boston.
3. Currently, they don't know how to connect between the EZ-Trans system and the MBTA's Ride system to help their clients get to appointments and jobs in the Boston area. Better coordination and ease of use between systems would be very helpful.

Response: Mr. Doyle's comments echo those that were heard during the creation of the Coordinated Public Transit—Human Services Transportation Plan and this study, thus reinforcing their importance. It remains a priority for users in the region. The first two comments would be addressed if recommendations #6 and 10 are implemented. The third comment could potentially be addressed through recommendations #5 and 6.

Comments received from Joe Costanzo, MVRTA:

1. Page 6, left side: Ring and Ride costs range from free to $2.

Response: Change was made.

2. Page 15, bottom left: The increasing cost of fuel should be recognized as a variable and factored into projected service costs.

Response: These numbers are estimates and can change in the future depending on a variety of factors. Since fuel costs can fluctuate greatly and are therefore difficult to predict, it was not factored into the equation separately. According to the Regional Transportation Plan (RTP), the Executive Office of Transportation and Public Works estimates a 2.75% increase in transit operating costs per year from FY2009-2030. Three percent interest is the inflation rate used for transit capital costs in the RTP and was chosen for this study to address some of the concerns about escalating costs.

3. Page 8 and 13: The 96% correlation needs to be revised; 475 distinct people were certified to use the transportation service in FY08 alone; There are currently 1,143 ADA registered users; the percent of this total that use the service can be provided.

Response: The numbers for certified to use ADA services during FY08 and those who actually used the service have been updated with information provided by MVRTA.

4. Page 14: If the weekly ridership estimate used to calculate fleet size includes Saturday then the fleet size is on the low side due to lower ridership on Saturday. Weekday fleet needs range from 11-14 vehicles. The fleet estimate should be separated into Weekday and Saturday needs.

Response: Saturday van use was eliminated from the equation, since peak capacity is weekday use. Thirteen vans was used as the baseline for FY2008 vans in use for figuring estimates for fleet size.

5. Page 15, top left: Due to the size of the MVRTA service area, additional vehicles would need to be placed into service to address increasing productivity.

Response: This has been noted in the text found on page 15.

6. Page 18: Recommendation #1 is unclear. From the narrative it appears that the ADA safety net van service would be marketed to the exclusion of the accessible fixed route bus service. This is not in keeping with the philosophy of the ADA. The recommendation should be clear that the fixed route bus accessible service should be recommended and encouraged at all times. The ADA safety net van service would be for those individuals who, after being certified, would be eligible to use the service since having a disability in and of itself does not mean automatic availability of the van service.

Response: The recommendation was changed to "Increase marketing of ADA and non-ADA transit service to potential users."

7. Page 18, Recommendation #2: Any service outside the present MVRTA service area will require an increase to the fleet size and additional operating funds.

Response: This recommendation was changed to "Provide MVRTA ADA transit service to medical facilities in Boston. (This would require an increase in fleet size.)"

8. An overall comment relates to the coordination of this study with the update of the Elderly Transportation Study that is part of this year's UPWP. Both studies need to be viewed together particularly when addressing the over 65 age group and how this will effect services. The Disabled Transportation Study should be considered part 1 of a 2 part effort. Recommendation #14 should be deleted and this coordination effort inserted in its place and ranked #1 but no lower than #2 in a revised recommendation table.

Response: The recommendations that came from this study are for service changes. To address this comment, the following sentence was included in the introduction: "The Disabled Transportation Study is considered to be the first of a coordinated two-part series to address both disabled and elderly transportation needs."

9. Recommendation #14 is beyond the scope of the study. Double tracking has been on the MBTA capital plan since 1980, therefore, unless there is going to be a massive push to do this project in the next 5 years it should be deleted and the coordination recommendation substituted.

Response: The recommendations were chosen by the study committee, and therefore we are reluctant to eliminate any. While the 2008 Merrimack Valley Disabled Transportation Study focuses primarily on MVRTA's ADA EZTrans service, the title of the study reflects a broader view of disability. Improved commuter rail service would provide better transportation access for people of a broader range of disabilities so that they could more easily access the Boston area. For example, a blind person, who cannot drive, could take the train to Boston and then catch the medical shuttle at North Station. This person may or may not qualify for ADA EZTrans service as defined by the MVRTA. The estimated timeframe for this project was changed to 10-20 years.

Comments received from Karen Sawyer, City of Methuen:

1. Perhaps providing an incentive for people who bring buddies on EZTrans would be cost effective and help encourage people to use the system.

Response: The MVRTA currently does not provide an incentive per se for clients to bring companions on EZTrans with them. However, clients may bring companions on the vans for the same cost that the client pays. According to the MVRTA, the policy for bringing a companions on the van with a client is just to let the MVRTA know at the time of booking that they will be there. In FY08, 476 people took 765 companions with them on the EZTrans vans. A companion is not considered a personal care assistant (PCA). PCAs ride (with their clients) the EZTrans for free.