



Chapter 5. TRANSPORTATION EQUITY



Chapter 5 – Transportation Equity

Introduction

Transportation and social equity, Title VI and Environmental Justice all play a key role in the quality of life in the region by shaping access to jobs, housing, services and recreational opportunities and is essential to addressing poverty, unemployment and other equal opportunity goals. **Transportation and social equity** is a civil and human rights priority and major goal for the Montachusett Region. It requires making investments that provide all residents - regardless of age, race, color, national origin, income or physical ability - with opportunities to work, shop, be healthy, and play.

Title VI was enacted as part of the landmark Civil Rights Act of 1964 and prohibits discrimination on the basis of race, color, sex and national origin in programs and activities receiving federal financial assistance. In 1994, Executive Order 12898 was issued by President Clinton. Its purpose is to focus federal attention on the environmental and human health effects of federal actions on minority and low-income populations with the goal of achieving environmental protection for all communities. The order is also intended to promote nondiscrimination in federal programs that affect human health and the environment, as well as provide minority and low-income communities' access to public information and public participation. The order also directs each agency to develop a strategy for implementing environmental justice.

The Executive Order 552 was issued on November 25th, 2014 requiring Secretariats to take action in promoting environmental justice (EJ). "**Environmental Justice** is based on the principle that all people have a right to be protected from environmental pollution, and to live in and enjoy a clean and healthful environment. Environmental justice is the equal protection and meaningful involvement of all people with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies and the equitable distribution of environmental benefits" (www.mass.gov) . In Massachusetts a community is recognized as an Environmental Justice community if any of the following are true:

- Block group whose annual median household income is equal to or less than 65 percent of the statewide median (\$62,072 in 2010); or
- 25% or more of the residents identifying as minority; or
- 25% or more of households having no one over the age of 14 who speaks English only or very well - Limited English Proficiency (LEP)

In 2000, Executive Order 13166 was issued "Improving Access to Services for Persons with Limited English Proficiency". The Executive Order requires Federal agencies to examine the services they provide, identify any need for services to those with limited English proficiency (LEP), and develop and implement a system to provide those services so LEP persons can have meaningful access to them.



Target Populations

The target populations used for the Transportation Equity Analysis include:

- a) Elderly
- b) Individuals with Disabilities
- c) Minority
- d) Foreign Born
- e) Language
- f) Low Income

Detailed information for these populations can be found in the Demographic section of this document.

Target Communities

To conduct a social equity analysis, it is necessary to identify people who are vulnerable or disadvantaged. Target communities within the Montachusett Region were communities that exceeded the regional average for any of the target populations listed below (also see the map located at the end of this chapter).

- a) Elderly (% of Total Population > 65 that is higher than the regional average of 12.58%) – Athol, Clinton, Gardner, Leominster, Lunenburg, Petersham, Sterling, and Templeton
- b) Individuals with Disabilities (% of population with a disability that is higher than the regional average of 12.12%) – Athol, Ayer, Fitchburg, Gardner, Leominster, Petersham, and Royalston
- c) Minority (% of population that is considered non-white and is higher than the regional average of 11.18%) – Ayer, Clinton, Fitchburg, Lancaster, Leominster and Shirley
- d) Foreign Born (% of population that is Foreign Born and is higher than the regional average of 8.15%) – Ayer, Clinton, Fitchburg, Gardner, Harvard, Leominster and Shirley
- e) Language (% of Population Spoken Language Other than English that is higher than the regional average of 13.70%) – Clinton, Fitchburg, Harvard, Leominster, and Shirley
- f) Low Income (% Estimated Below Poverty Level that is higher than the regional average of 10.49%) - Athol, Ayer, Fitchburg, Gardner, Shirley and Templeton

Highway - Past Projects

To conduct a review of past highway transportation projects within the region and their potential impact on the target populations and communities, projects that were listed on the most recent MPO Endorsed FFY2015-2018 Transportation Improvement Program (TIP), as well as those that were completed or under construction since 2000, were included in this analysis.



Table 5-1
2015-2018 TIP Projects within Target Communities

Community	No. of Projects	Total Project Cost
Athol	3	\$4,169,475
Ayer	3	\$13,375,000
Clinton	2	\$7,051,000
Fitchburg	6	\$16,066,698
Gardner	3	\$3,729,200
Harvard	2	\$5,246,400
Lancaster	2	\$13,218,734
Leominster	5	\$16,869,125
Lunenburg	2	\$4,691,638
Petersham	1	\$4,680,000
Royalston	0	\$0
Shirley	0	\$0
Sterling	3	\$10,178,126
Templeton	1	\$2,007,560
TOTAL	33	\$101,282,955
Percent of Region Total	67%	73%
REGION TOTAL	49	\$137,970,474

Table 5-1 shows that in the FFY 2015-2018 TIP, 33 of the 49 projects listed occur in the 14 target communities. This equals 67% of the total projects and 73% of the total project costs.

Table 5-2
Construction Projects (2000-present) within Target Communities

Community	No. of Projects	Total Project Cost
Athol	7	\$8,078,133.81
Ayer	0	\$0
Clinton	0	\$0
Fitchburg	0	\$0
Gardner	0	\$0
Harvard	1	\$410,000.00
Lancaster	2	\$1,391,322
Leominster	5	\$14,090,044.30
Lunenburg	0	\$0
Petersham	1	\$1,092,347.13
Royalston	3	\$2,864,337
Shirley	0	\$0
Sterling	0	\$0
Templeton	2	\$4,705,094.43
TOTAL	21	\$32,631,279
Percent of Region Total	84%	58%
REGION TOTAL	25	\$56,197,603

This Table 5-2 identifies 25 total projects under construction (i.e. not identified as 100% complete) in the Region since 2000 (source: MassDOT ProjectInfo website). Of these 25 projects, 21 or 84% occurred in the target communities. In terms of total dollars, this equates to 58% of the total funding allocation.

Table 5-3
Completed Projects (2000-2015) within Target Communities

Community	No. of Projects	Total Project Cost
Athol	9	\$19,695,084.67
Ayer	1	\$709,750.00
Clinton	4	\$10,285,734.70
Fitchburg	16	\$37,363,892.93
Gardner	15	\$18,503,462.07
Harvard	8	\$14,174,908.67
Lancaster	10	
Leominster	13	\$15,851,462.30
Lunenburg	3	
Petersham	2	\$3,570,669.70
Royalston	6	
Shirley	3	\$6,067,002.47
Sterling	6	
Templeton	9	\$13,772,645.70
TOTAL	105	\$177,570,767
Percent of Region Total	96%	80%
REGION TOTAL	109	\$221,381,324.85

Table 5-3 presents information on the 109 projects identified from ProjectInfo that could be classified as completed. Of these 109 projects, 105, or 96%, took place in the target communities. Dollar wise, these 105 projects make up 80% of the total project costs.

Highway - Past Projects within Target Communities and Populations

The following tables provide more detailed information for each target population. Each population is listed along with the community, number of projects and total funding amount compared to the region wide totals. This will show how the funding allocations are spent throughout the region with the focus on specific target populations and communities.

Table 5-4
Percent of Total Population > 65

Target Communities	2015-2018 Element Projects		Prior Projects Completed or Construction	
	No.	Est Cost	No.	Est Cost
Athol	3	\$4,169,475	16	\$27,773,218
Clinton	2	\$7,051,000	4	\$10,285,735
Gardner	3	\$3,729,200	15	\$18,503,462
Leominster	5	\$16,869,125	18	\$29,941,507
Lunenburg	2	\$4,691,638	3	\$5,034,820
Petersham	1	\$4,680,000	3	\$4,663,017
Sterling	3	\$10,178,126	6	\$10,297,525
Templeton	1	\$2,007,560	11	\$18,477,740
TOTAL	20	\$53,376,123	76	\$124,977,024
REGION TOTAL	49	\$137,970,474	134	\$277,578,928
% of Total	41%	39%	57%	45%

Table 5-5
Percent of Total Population w/ Disability

Target Communities	2015-2018 Element Projects		Prior Projects Completed or Construction	
	No.	Est Cost	No.	Est Cost
Athol	3	\$4,169,475	16	\$27,773,218
Ayer	3	\$13,375,000	1	\$709,750
Clinton	2	\$7,051,000	4	\$10,285,735
Gardner	3	\$3,729,200	15	\$18,503,462
Leominster	5	\$16,869,125	18	\$29,941,507
Petersham	1	\$4,680,000	3	\$4,663,017
Royalston	0	\$0	9	\$13,246,530
Templeton	1	\$2,007,560	11	\$18,477,740
TOTAL	18	\$51,881,360	77	\$123,600,959
REGION TOTAL	49	\$137,970,474	134	\$277,578,928
% of Total	37%	38%	57%	45%

Table 5-6
Percent Non White

Target Communities	2015-2018 Element Projects		Prior Projects Completed or Construction	
	No.	Est Cost	No.	Est Cost
Ayer	3	\$13,375,000	1	\$709,750
Clinton	2	\$7,051,000	4	\$10,285,735
Fitchburg	6	\$16,066,698	16	\$37,363,893
Lancaster	2	\$13,218,734	12	\$13,252,938
Leominster	5	\$16,869,125	18	\$29,941,507
Shirley	0	\$0	3	\$6,067,002
TOTAL	18	\$66,580,556	54	\$97,620,824
REGION TOTAL	49	\$ 137,970,474	134	\$ 277,578,928
% of Total	37%	48%	40%	35%

Table 5-7
Percent Foreign Born

Target Communities	2015-2018 Element Projects		Prior Projects Completed or Construction	
	No.	Est Cost	No.	Est Cost
Ayer	3	\$13,375,000	1	\$709,750
Clinton	2	\$7,051,000	4	\$10,285,735
Fitchburg	6	\$16,066,698	16	\$37,363,893
Gardner	3	\$3,729,200	15	\$18,503,462
Harvard	2	\$5,246,400	9	\$14,584,909
Leominster	5	\$16,869,125	18	\$29,941,507
Shirley	0	\$0	3	\$6,067,002
TOTAL	21	\$ 62,337,423	66	\$ 117,456,257
REGION TOTAL	49	\$ 137,970,474	134	\$ 277,578,928
% of Total	43%	45%	49%	42%

Table 5-8
Percent Est Below Poverty Level

Target Communities	2015-2018 Element Projects		Prior Projects Completed or Construction	
	No.	Est Cost	No.	Est Cost
Athol	3	\$4,169,475	16	\$27,773,218
Ayer	3	\$13,375,000	1	\$709,750
Fitchburg	6	\$16,066,698	16	\$37,363,893
Gardner	3	\$3,729,200	15	\$18,503,462
Shirley	0	\$0	3	\$6,067,002
Templeton	1	\$2,007,560	11	\$18,477,740
TOTAL	16	\$ 39,347,933	62	\$ 108,895,066
REGION TOTAL	49	\$ 137,970,474	134	\$ 277,578,928
% of Total	33%	29%	46%	39%

Table 5-9
Percent of Population Spoken Language Other than English

Target Communities	2015-2018 Element Projects		Prior Projects Completed or Construction	
	No.	Est Cost	No.	Est Cost
Clinton	2	\$7,051,000	4	\$10,285,735
Fitchburg	6	\$16,066,698	16	\$37,363,893
Harvard	2	\$5,246,400	9	\$14,584,909
Leominster	5	\$16,869,125	18	\$29,941,507
Shirley	0	\$0	3	\$6,067,002
TOTAL	15	\$ 45,233,222	50	\$ 98,243,046
REGION TOTAL	49	\$ 137,970,474	134	\$ 277,578,928
% of Total	31%	33%	37%	35%

Results

A review of the table numbers shows that the percent of funding spent in these target communities ranges from a low of 29% (Table 58) to a high of 48% (Table 5-6). In terms of the number of projects occurring in these communities, the range runs from 31% (Table 5-9) to 57% (Tables 5-4 and 5-5).

Highway - Plan Projects within Target Communities and Populations

The same type of analysis was undertaken to assess any impacts to the target populations and communities for those projects and recommendations contained in this RTP. Ninety-seven projects ranging from road safety audits, intersection and corridor improvements to trail construction were identified. A listing of the recommended projects can be found in the Challenges and Recommendations Summary chapter 16.

Table 5-10
Percent of Total Population > 65

Target Communities	RTP Projects	
	No.	Est Cost
Athol	3	\$63,000,000
Clinton	4	\$4,000,000
Gardner	17	\$31,000,000
Leominster	23	\$35,487,838
Lunenburg	2	\$2,000,000
Petersham	0	\$0
Sterling	5	\$11,900,000
Templeton	1	\$1,000,000
TOTAL	55	\$148,387,838
REGION TOTAL	97	\$209,785,675
% of Total	57%	71%

Table 5-11
Percent of Total Population w/Disability

Target Communities	RTP Projects	
	No.	Est Cost
Athol	3	\$63,000,000
Ayer	2	\$2,160,000
Clinton	4	\$4,000,000
Gardner	17	\$31,000,000
Leominster	23	\$35,487,838
Petersham	0	\$0
Royalston	0	\$0
Templeton	1	\$1,000,000
TOTAL	50	\$136,647,838
REGION TOTAL	97	\$209,785,675
% of Total	52%	65%

Table 5-12
Percent Non White

Target Communities	RTP Projects	
	No.	Est Cost
Ayer	2	\$2,160,000
Clinton	4	\$4,000,000
Fitchburg	32	\$50,237,838
Lancaster	3	\$3,750,000
Leominster	23	\$35,487,838
Shirley	4	\$4,000,000
TOTAL	68	\$99,635,676
REGION TOTAL	97	\$209,785,675
% of Total	70%	47%

Table 5-13
Percent Foreign Born

Target Communities	RTP Projects	
	No.	Est Cost
Ayer	2	\$2,160,000
Clinton	4	\$4,000,000
Fitchburg	32	\$50,237,838
Gardner	17	\$31,000,000
Harvard	1	\$1,250,000
Leominster	23	\$35,487,838
Shirley	4	\$4,000,000
TOTAL	83	\$128,135,676
REGION TOTAL	97	\$209,785,675
% of Total	86%	61%

Table 5-14
Percent Est Below Poverty Level

Target Communities	RTP Projects	
	No.	Est Cost
Athol	3	\$63,000,000
Ayer	2	\$2,160,000
Fitchburg	32	\$50,237,838
Gardner	17	\$31,000,000
Shirley	4	\$4,000,000
Templeton	1	\$1,000,000
TOTAL	59	\$ 151,397,838
REGION TOTAL	97	\$209,785,675
% of Total	61%	72%

Table 5-15
Percent of Population Spoken Language Other than English

Target Communities	RTP Projects	
	No.	Est Cost
Clinton	4	\$4,000,000
Fitchburg	32	\$50,237,838
Harvard	1	\$1,250,000
Leominster	23	\$35,487,838
Shirley	4	\$4,000,000
TOTAL	64	\$ 94,975,676
REGION TOTAL	97	\$209,785,675
% of Total	66%	45%

Results

Table numbers shows that the percent of project costs estimated for the 97 RTP projects is \$209,785,675. Based upon the target populations and communities, anywhere from 45%, Table 5-15 to 72%, Table 5-14, are estimated to be spent in the 14 identified communities to 57% (Tables 5-4 and 5-5).

Transit Equity

The Montachusett Regional Transit Authority (MART) operates the fixed route transit system in the region. Fixed route service is concentrated within the urban cities of Fitchburg, Leominster and Gardner. Over the years, service has expanded slowly into neighboring communities based upon need, local requests and area attractions. Within calendar year 2015 alone, MART has implemented or planned extension of applicable routes into Lunenburg, a target community, and Westminster. Additionally, on a regular basis, the MRPC conducts Transit Demand Plan (TDP) for the fixed route communities that involve a review of demographics, attractions and local public outreach to identify issues and needs for the system. From these studies, adjustments are made to better serve the population.

In January 2015, the Montachusett MPO endorsed a “Coordinated Public Transit–Human Services Transportation Plan (CPT-HST)” that documents the region’s unmet human-service transportation needs of individuals with disabilities, low-income individuals (or persons below the poverty level) and the elderly. The target populations for the CPT-HST align with the Title VI and EJ target populations.

The CPT-HST Plan was developed as a tool to help local transportation providers and communities improve transportation services, increase efficiency of service delivery, and expand outreach to meet growing needs. It also seeks to provide a framework to guide the investment of existing transportation resources and the acquisition of future funds. A series of priorities

and recommendations are included in the CPT-HST to address transit equity issues and are incorporated in this RTP within the Transit chapter.

Conclusion

Based on the analysis above, the following conclusions can be made –

- The projects located within the target communities that are in the current TIP or were past projects identified through the MassDOT website ProjectInfo have exceeded 37% of the total number of recognized projects. In terms of project costs, 29% of the total project amounts, approximately \$138,000,000 were spent in these identified communities.
- The prior highway projects located within the target populations on average, account for at least 1/3 of the total projects and funding spent within the region.
- For projects and recommendations identified in the RTP, on average over 50% are located within the target communities with associated funding of over \$95,000,000.
- Transit equity issues are addressed on a continuing basis through regular Transit Development Plans. In addition, the majority of transit operating funds are spent in the three cities which are identified target communities.

After analyzing the types of projects being implemented, it seems that the majority of highway projects consists of improvements to already existing infrastructure (ex. roadway resurfacing and rehabilitation, and bridge repair) as opposed to building new facilities and therefore do not bear an undue burden or benefit as compared to the rest of the region. These types of projects allow for smoother navigation through these areas (by personal vehicle, bicycling, walking or public transit) and provide improved access for commuting.

The MRPC complies with these requirements through their Public Participation Plan, Limited English Proficiency Plan, and its submittals to MassDOT and the Federal transportation agencies through the Title VI. For this planning document there was extensive outreach to the EJ and Title VI populations by both daytime and evening meetings with locations along the public transportation routes, contacted public service agencies, online surveys in English and Spanish, and were included as meeting topics during other agency meetings.

Challenges

- How can the region continue to monitor and maintain an equitable transportation program as it relates to highway and transit projects and services?

Moving Forward – Addressing the Challenges

- Improve the monitoring process to examine communities on a smaller basis, i.e. block groups, census tract, etc. in order to further refine analysis procedures.



- Continue to coordinate with local communities/organizations/advocates to monitor and address issues as they relate to identified target populations.

Action Items

Action	Next Steps	Outcome
Maintain demographic data at a level to conduct equity analysis	Include analysis task in UPWP	Better GIS and mapping analytics
Conduct fixed route TDP's	Include in UPWP Updates to the Coordinated Public transit – Human Services Plan	Revised and adjusted fixed route services
Improve outreach to Title VI and EJ populations, groups and organization to improve input, services and programs	Update Region's Public Participation Program Monitor and solicit participation by advocates to Joint Transportation Committee	Improved dissemination of information to targeted populations

