





DEMOGRAPHIC PROFILE

Introduction

This chapter contains a demographic profile of the Montachusett Region including population, housing, income, employment and transportation statistics. This document relies heavily upon available data from the U.S. Census. Not all 2010 Census data has been released by the U.S. Census Bureau as of the printing of this report. The MMPO's 2016 RTP shall include all relevant 2010 Census data.. Therefore this chapter contains a combination of information - population changes, racial composition and total dwelling units are from the 2010 Census data while other census data is from the year 2000. Per capita income was derived from the American Community Survey 2005-2009 Estimates. Median Sales Prices of Homes from 2000 through 2010 was derived from the Warren Group. The section on employment activity was obtained from the MA Executive Officer of Labor and Workforce Development for the year 2010.

The purpose of the demographic data below, is to provide the reader with sufficient information for the reader to understand the makeup of those who populate the Montachusett Region. These data reveal that a majority of the population that relies upon personal vehicles (primarily), while a smaller percentage scattered throughout several urban communities rely heavily upon public transit.

Nearly one-half of the region's residents hold jobs inside the region, another one-third commute to their jobs outside the region, while the remainder commutes to jobs inside the region, but live elsewhere. Regardless of residence, commuters rely upon the transportation infrastructure and transit services to obtain employment and other goods and services. The private sector also relies heavily upon the transportation infrastructure to move goods and freight. This is especially important to those businesses that comprise the highest cluster of manufacturers in the Commonwealth.

Population Characteristics

Population Changes

Table 1 lists the population figures for the Montachusett Region from 1960 to 2010. Between 2000 and 2010 the region showed an increase of 3.7%. This exceeds the statewide increase of 3.1% during the same time period.

Within the region, population increases from 2000 to 2010 varied from a total increase of 17.9% in Templeton to a population loss of -3.0% in Townsend. The following towns all witnessed double digit percentage increases in their population making them the fastest growing Montachusett communities in 2010.



- Groton (11.5%)
- Hubbardston (12.1%)
- Shirley (13.1%)
- Templeton (17.9%)

On the opposite end of the spectrum, Gardner, Leominster and Townsend had the highest decrease in population.

- Gardner (-2.6%)
- Leominster (-1.3 %)
- Townsend (-3.0%)

The 2000-2010 population growth patterns in the region indicate that the significant growth was primarily concentrated in most rural/suburban communities while population decreased in two of the three cities in the region. This is a continuation of the trend established by the 1980-2000 population growth patterns as development pressure from the Metro-Boston area move westward. Since 2000, Metro-Boston continues to expand into the Montachusett Region, especially due to continuous development along the I-495 corridor. This growth pattern is also consistent with national patterns of sprawl, as people leave central cities and move into the suburbs.

Table 1 Population 1960-2010

Community	1960	1970	1980	1990	2000	2010	'80-90' %	'90-00'%	00-10%
							Change	Change	Change
Ashburnham	2,758	3,484	4,075	5,433	5,546	6,081	33.30%	2.10%	9.6%
Ashby	1,883	2,274	2,311	2,717	2,845	3,074	17.60%	4.70%	8.0%
Athol	11,637	11,185	10,634	11,451	11,299	11,584	7.70%	-1.30%	2.5%
Ayer	14,927	7,393	6,993	6,871	7,287	7, 427	-1.70%	6.10%	1.9%
Devens		2,462	710	620	266	N/A	N/A	N/A	N/A
Ayer		5,863	6,283	6,251	7,287	N/A	-0.50%	16.60%	N/A
Clinton	12,848	13,383	12,771	13,222	13,435	13,606	3.50%	1.60%	1.3%
Fitchburg	43,021	43,343	39,580	41,194	39,102	40,318	4.10%	-5.10%	3.1%
Gardner	19,038	19,748	17,900	20,125	20,770	20,228	12.40%	3.20%	-2.6%
Groton	3,904	5,109	6,154	7,511	9,547	10,646	22.10%	27.10%	11.5%
Harvard	2,563	12,536	12,170	12,329	5,981	6,520	1.30%	-51.50%	9.0%
Devens		9,532	8,118	7,667	751	N/A	N/A	N/A	N/A
Harvard		2,962	4,052	4,662	5,981	N/A	15.10%	28.30%	N/A
Hubbardston	1,217	1,437	1,797	2,797	3,909	4,382	55.60%	39.80%	12.1%
Lancaster	3,958	6,095	6,334	6,661	7,380	8,055	5.20%	10.80%	9.1%
Leominster	27,929	32,939	34,508	38,145	41,303	40,759	10.50%	8.30%	-1.3%
Lunenburg	6,334	7,419	8,405	9,117	9,401	10,086	8.50%	3.10%	7.3%
Petersham	890	1,015	1,024	1,131	1,180	1,234	10.40%	4.30%	4.6%
Phillipston	695	872	953	1,485	1,621	1,682	55.80%	9.20%	3.8%
Royalston	800	809	955	1,147	1,254	1,258	20.10%	9.30%	.3%
Shirley	5,202	4,909	5,124	6,118	6,373	7,211	19.40%	4.20%	13.1%
Devens		957	718	686	0	N/A	N/A	N/A	N/A

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Shirley		3,952	4,406	5,432	6,373	N/A	23.30%	17.30%	N/A
Sterling	3,193	4,247	5,440	6,481	7,257	7,808	19.10%	12.00%	7.6%
Templeton	5,371	5,863	6,070	6,438	6,799	8,013	6.10%	5.60%	17.9%
Townsend	3,650	4,281	7,201	8,496	9,198	8,926	18.00%	8.30%	-3.0%
Westminster	4,022	4,273	5,139	6,191	6,907	7,277	20.50%	11.60%	5.4%
Winchendon	6,237	6,682	7,019	8,805	9,611	10,300	25.40%	9.20%	7.2%
TOTAL	182,077	199,296	202,557	223,865	228,005	236,475	10.50%	1.80%	3.7%

Source: U.S. Census Bureau

N/A – Prior to the Devens Restructure in the 1990's, Devens military population was divided amongst the communities of Ayer, Harvard and Shirley. Devens is no longer an active military installation with any significant population.

Population Migration Patterns

The Montachusett Region consists of seven commercial/industrial centers, two smaller centers, and fifteen rural and suburban communities. The Twin Cities of Fitchburg and Leominster, which are connected to each other along Rt. 2 (over 81,000 people within both communities), and Gardner (2010 population - 20,228), are the three largest centers. In addition to the main historic centers, there also exist two smaller historic centers, Clinton (13,606) and Athol (11,584). All of these areas were hit hard by the postindustrial era. Those that have remained are mature or declining, and the past decade has seen many firms go out of business. In some cases the old industrial buildings have been converted to other uses, but this has been done only in areas that have the market demand to make this feasible. Some adaptive reuses include schools, elderly housing, and commercial uses. In an attempt to make their communities more attractive many of the communities have constructed industrial parks, in the hopes that some of the cutting edge industries will be drawn to the area.

The 1980's witnessed a boom in the housing market, as a major influx of new households entered the area. The majority of these newcomers were former Boston area residents who were out-priced by the soaring cost of housing. At the time, the prices in the Montachusett Region were more reasonable. Out of state residents were also major factors for the influx of residents during this time period, many of which had crossed the border from New Hampshire. Over the years, as people continue to move into the region, the majority of newcomers tend to locate in the eastern communities, because of its close proximity to Boston, and also in communities located along major transportation routes (Leominster). As more people came into the region, the housing prices and land values surged, forcing many long-time residents to vacate their communities. This trend occurred most often in the eastern part of the region, where individuals were driven from communities like Harvard to locations in the central portion of the region. This resulted in prices increasing in these areas, displacing people out to the western part of the region and adding more vehicles (heading to Boston for work) to the roadways.

In addition to gradual decline in housing prices, moving from the eastern portion of the region to the west, there is also a trend of having lower median housing values in the commercial/industrial centers. Out of the seven historic and secondary centers, four of them



rank at the bottom of the list for the region's median housing value. Six out of the seven had median values below \$144,100, ranking them in the bottom half of the region. Out of the group, Ayer (\$160,400) has the highest median housing value.

There has been a national trend to migrate from urban areas, into suburban areas. A notable reason for this trend has been innovations in the automobile (affordability, efficiency) and improvements to infrastructure (roadway systems). This trend has also occurred in the Montachusett Region. Most of the urban communities (Leominster, Fitchburg, Gardner, Athol, Clinton) have experienced stagnant or declining population totals.

In 1950, 68.37% (110,188) of the region's population lived in historic centers, 7.65% (12,325) lived in secondary centers, while only 23.98% (38,649) lived in the suburbs. These figures change dramatically in 2000, where 55.22% (125,909) live in historic centers, while 37.37% (85,198) live in the suburbs and rural communities. Secondary Centers remained relatively constant. (see Table 2 below)

A shifting population to the suburbs increases the volume of traffic on the roadways, since most of the jobs have remained in the commercial/industrial centers. Increased traffic volume leads to longer commute times, more accidents, further congestion, longer delays, and idling cars that contribute to more air pollution.

After large shifts in population to the suburbs in the 1950's, 1960's, and 1970's, recent years have witnessed this trend continue but at a much slower pace. Future trends may contribute to a further slowing of this growth trend. The aging baby boomer generation with needs for public transportation, as well as soaring gas prices, may encourage people back to the urban core. Also, gentrification trends, and the increased sale of condominiums in the region, could lure more people back into cities.

Table 2
Commercial/Industrial Centers and Suburbs/Rural Communities

	Historic C	enters	Secondar	y Centers	Suburbs and Rural		
	%			%		%	
1950	110,188	68.37%	12,325	7.65%	38,649	23.98%	
1960	114,473	62.87%	21,164	11.62%	46,440	25.51%	
1970	120,598	60.51%	14,075	7.06%	64,623	32.43%	
1980	115,393	56.97%	14,012	6.92%	73,152	36.11%	
1990	124,137	55.45%	15,676	7.00%	84,052	37.55%	
2000	125,909	55.22%	16,898	7.41%	85,198	37.37%	
2005	128,449	54.34%	17,332	7.33%	90,579	38.32%	

Source: U.S. Census Bureau



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Historic Centers had populations of over 10,000 in 1950, while secondary centers are functional centers, but had populations below 10,000 in 1950.

- Historic Centers: Athol, Clinton, Fitchburg, Gardner, Leominster
- Secondary Centers: Ayer, Winchendon
- Suburbs and Rural: Remaining Communities

In the late 2000's the nation experienced a subprime mortgage crisis. The crisis occurred due to a rise in subprime mortgage delinquencies and foreclosures which resulted in a decline of securities backing said mortgages. Nationally, housing prices started to drop moderately in 2006 and 2007. Defaults in foreclosures increased dramatically and home prices failed to go up as anticipated. By 2008 average housing prices had declined by over 20% from their mid 2006 peak. An estimated 10.8% of all homeowners (borrowers) had negative equity in their homes. Falling prices in 2010 resulted in homes being worth less than the mortgage loan. Borrowers in this situation had an incentive to default on their mortgage. Increasing foreclosure rates increased the inventory of houses offered for sale. By January 2008 the inventory of unsold new homes was 9.8 times the December 2007 sales volume. This surplus of unsold homes lowered home prices. House prices are expected to continue to decline until the inventory of unsold homes decreases to normal levels. (Information on the subprime mortgage crisis was obtained from the following sources: "Create, Sustain, Preserve and Protect the American Dream of Homeownership – Senator Dodd"; Standard and Poor's Home Price Index"; "The Roots of the Mortgage Crisis – Alan Greenspan".)

A recent report published by the Massachusetts Housing Partnership indicates that the number of housing units in distress dropped 14 percent in Massachusetts from April 1, 2010 to April 1, 2011. A housing unit in distress is a property where a foreclosure petition had been filed, an auction is scheduled, or the property is bank held. However in the Montachusett Region, the communities of Ashburnham and Winchendon experienced increases in the number of housing units in distress. Ashburnham had a 7% increase where Winchendon had a 16% increase. Statewide, Winchendon has the largest increase during that time frame.

The Massachusetts Association of Realtors reported in April 2011 that the median selling price for a single family homes in Massachusetts was \$279, 000, a decrease of 8.5 percent compared to \$305,000 in the previous year. This was the third year over year decrease in a row.



Table 3
Median Sales Price – Housing

Community	2000	2005	2010	5 year % change 2005-2010
Ashburnham	\$135,000	\$258,000	\$189,450	-26.6%
Ashby	\$153,500	\$275,000	\$186,000	-32.4%
Athol	\$82,300	\$179,900	\$99,000	-45.0%
Ayer	\$189,950	\$335,000	\$226,000	-32.6%
Clinton	\$150,000	\$272,500	\$190,000	-30.3%
Fitchburg	\$119,000	\$213,950	\$141,000	-34.1%
Gardner	\$124,000	\$219,000	\$149,900	-31.6%
Groton	\$360,000	\$472,000	\$392,000	-16.6%
Harvard	\$447,500	\$620,000	\$499,000	-19.5%
Hubbardston	\$173,700	\$256,250	\$202,500	-20.1%
Lancaster	\$210,000	\$337,456	\$270,000	-20.0%
Leominster	\$150,000	\$264,000	\$205,000	-22.4%
Lunenburg	\$195,000	\$302,000	\$230,000	-23.8%
Petersham	\$175,000	\$264,000	\$240,000	-9.1%
Phillipston	\$114,500	\$252,500	\$125,100	-50.5%
Royalston	\$110,000	\$182,950	\$134,750	-26.4%
Shirley	\$193,900	\$340,000	\$247,000	-27.4%
Sterling	\$240,000	\$329,900	\$272,800	-17.3%
Templeton	\$130,000	\$241,025	\$173,000	-28.2%
Townsend	\$179,950	\$288,950	\$224,900	-22.2%
Westminster	\$159,950	\$298,000	\$210,000	-29.5%
Winchendon	\$115,000	\$214,000	\$148,300	-30.7%

Source: The Warren Group 2000-2010

Comparing homes sales prices from 2005 to 2010, all twenty two communities of the Montachusett Region experienced declining home prices. Phillipston had the largest drop in sales prices at 50.5%, followed by Athol at 45.0%. Petersham had the smallest drop at 9.1%.

Age

Census 2010 data for age group and gender was not available at the time of this report. Therefore, these sections include data from the 2000 census.

The baby boomers represented the largest increase in population between 1990 and 2000, as there was a 48.3% boost in the number of individuals age 45-59. This continues the trend that occurred between 1980 and 1990 where the biggest increase in age was the 35-44 group. Decreases of 27.39% and 28.54% were also seen in the 18-20 and 21-34 age groups. Table 4 shows the changes within each age group by community for the 1990 and 2000 time periods.



Table 4 1990 and 2000 Population by Age Group

Community	Year	Under 5	5-17	18-20	21-34	35-44	45-59	60-64	65 & Over
Ashburnham	2000	332	1,274	203	750	1,135	1,188	172	492
7.0.1.2 0.11.1.0.1.1	1990	442	1,187	184	1,184	1.077	722	180	457
Ashby	2000	166	632	111	357	600	611	97	271
c y	1990	219	596	89	561	549	355	100	248
Athol	2000	648	2,227	412	1,752	1,881	2,022	417	1,940
7 (110)	1990	946	2,194	417	2,538	1,530	1,429	502	1,895
Ayer	2000	513	1,235	349	1,606	1,364	1,170	204	876
/ tyoi	1990	627	1,043	363	2,202	912	772	262	690
Clinton	2000	803	2,290	430	2,680	2,361	2,347	512	2,012
Ollittori	1990	1,025	1,934	519	3,736	1,748	1,641	622	1,997
Fitchburg	2000	2,637	7,467	2,040	7,908	5,841	6,199	1,297	5,713
ritoriburg	1990	3,321	6,689	2,726	10,473	5,039	4,778	1,839	6,329
Gardner	2000	1,244	3,685	670	3,862	3,666	3,595	707	3,341
Gardilei	1990	1,508	3,049	722	5,181	2,808	2,506	958	3,393
Groton	2000	837	2,280	209	1,159	2,155	1,955	284	668
Giotori	1990	618	1,453	324	1,505	1,595	1,259	182	575
Llowerd	2000	342	1,433	114	683	1,207		252	457
Harvard		3 42 1,172					1,678	252 174	
I balaba adatas	1990		2,282	1,536	3,684	1,960	1,188		333
Hubbardston	2000	293	922	106	569	863	787	98	271
	1990	243	609	87	650	562	358	89	199
Lancaster	2000	367	1238	354	1,596	1,481	1,359	252	733
	1990	401	1,142	570	1,652	1,049	936	228	683
Leominster	2000	2,929	7,612	1,224	7,876	7,229	7,328	1,472	5,633
	1990	2,979	5,900	1,514	10,296	5,630	5,181	1,675	4,970
Lunenburg	2000	554	1,873	272	1,256	1,793	2,148	376	1,129
	1990	609	1,699	320	1,805	1,646	1,571	397	1,070
Petersham	2000	60	204	19	140	211	289	52	207
	1990	68	175	39	205	216	164	64	200
Phillipston	2000	96	378	44	242	338	348	53	122
	1990	119	327	56	344	255	224	64	106
Royalston	2000	71	294	40	167	241	291	27	123
	1990	97	252	37	222	220	143	32	144
Shirley	2000	379	1,003	226	1,410	1,400	1,226	196	586
	1990	452	1,083	232	1,757	1,130	757	218	489
Sterling	2000	483	1,514	200	985	1,454	1,710	256	655
	1990	509	1,323	262	1,271	1,337	1,001	224	554
Templeton	2000	457	1,320	179	1,062	1,279	1,358	269	875
	1990	425	1,240	230	1,354	1,017	977	306	889
Townsend	2000	647	2,152	372	1,352	1,826	1,985	242	622
	1990	713	2,055	325	1,835	1,795	985	216	572
Westminster	2000	415	1,435	221	903	1,292	1,682	206	753
	1990	418	1,222	261	1,178	1,307	891	239	675
Winchendon	2000	690	2,217	343	1,556	1,809	1,644	345	1007
	1990	876	1,764	281	2,165	1,285	1,101	304	1,029
TOTAL	2000 1990	14,963 17,787	44,500 39,218	8,055	39,871 <i>55,798</i>	41,426 34,667	42,920 28,939	7,786 8,875	28,486 27,497
% Change 1990-2000		-15.88%	13.47%	-27.39%	-28.54%	19.50%	48.31%	-12.27%	3.60%

Source: U.S. Census Bureau 2000



Sex of Region's Population

Census 2010 data for age group and gender was not available at the time of this report. Therefore, these sections include data from the 2000 census.

Overall the sex of the region's 2000 population is split by approximately 50 percent male to 50 percent female, following a trend seen in population figures for 1990. Between 1990 and 2000, the communities of Groton and Hubbardston underwent a significant increase in their total population, therefore their percentage of females and males spiked as well. Figures for the town of Harvard are misleading because of the removal of the Devens population for 2000. Devens, a former military base was significantly reduced and restructured in 1994. The percentage change for the entire region indicated in Table 5 shows an increase in the male population almost double that of the female population (2.4% to 1.3%, respectively).

Table 5
Population Breakdown by Sex 1990-2000

		1990			2000		% chan	
Community	Populati	Female	Male	Populati	Female	Male	Femal	Male
	on			on			е	
A a la la	F 400	0.005	2.768	F F 40	0.700	2.817	0.4	4.0
Ashburnham Ashby	5,433 2,717	2,665 1,371	1,346	5,546 2,845	2,729 1,417	1,428	2.4 3.4	1.8 6.1
Athol	,	,	,	,	,	,	-1.4	-1.3
	11,451	5,912	5,539	11,299	5,830	5,469	-1.4 4.4	-
Ayer	6,871	3,545	3,326	7,287	3,702	3,585		7.8
Clinton	13,222	6,931	6,291	13,435	6,963	6,472	0.5	2.9
Fitchburg	41,194	21,664	19,530	39,102	20,443	18,659	-5.6	-4.5
Gardner	20,125	10,055	10,070	20,770	10,125	10,645	0.7	5.7
Groton	7,511	3,749	3,762	9,547	4,816	4,731	28.5	25.8
Harvard	12,329	5,191	7,138	5,981	2,662	3,319	-48.7	-53.5
Hubbardston	2,797	1,380	1,417	3,909	1,932	1,977	40.0	39.5
Lancaster	6,661	3,375	3,286	7,380	3,268	4,112	-3.2	25.1
Leominster	38,145	19,718	18,427	41,303	21,443	19,860	8.7	7.8
Lunenburg	9,117	4,596	4,521	9,401	4,746	4,655	3.3	3.0
Petersham	1,131	591	540	1,180	586	594	-0.8	10.0
Phillipston	1,485	722	763	1,621	806	815	11.6	6.8
Royalston	1,147	558	589	1,254	605	649	8.4	10.2
Shirley	6,118	2,886	3,232	6,373	2,680	3,693	-7.1	14.3
Sterling	6,481	3,243	3,238	7,257	3,645	3,612	12.4	11.6
Templeton	6,438	3,206	3,232	6,799	3,382	3,417	5.5	5.7
Townsend	8,496	4,286	4,210	9,198	4,637	4,561	8.2	8.3
Westminster	6,191	3,131	3,060	6,907	3,462	3,445	10.6	12.6
Winchendon	8,805	4,461	4,344	9,611	4,845	4,766	8.6	9.7
Total	223,865	113,236	110,62	,	114,724	113,28	1.3	2.4
		<u> </u>	9	228,005	·	1		
% of Population		50.6	49.4		50.3	49.7		

Source: 2000 U.S. Department of Commerce, Bureau of the Census

Racial Composition

Table 6 shows that the region's ethnic and racial mix is becoming more diverse as the number of Black, Hispanic, American Indian, Asian and other minority individuals living within the region increases. The Hispanic population is booming, as it experienced an increase of



40.5% during the 10 year period from 2000 to 2010. During the ten year period from 2000 to 2010 the number of whites in the region experienced a decrease of 4.2%. The minority population is predominately concentrated in the urban areas or their surrounding communities but is also increasing in majority of the suburban/rural areas.

Table 6 Racial Composition 1990-2010

				0-2010		American* Indian,	Some	Two or
Community	Year	Total	White	Black	Hispanic	¹ Asian & Pacific Islander	Other Race	More Races
Ashburnham	2010	6,081	5,713	53	155	15lander 79	2	79
ASHDUITHIAIH	2000	5,546	5,713 5,416	12	92	7 9 36	2	19
	1990	5,433	5,353	7	42	31		
Ashby	2010	3.074	2,954	9	57	13	2	39
Ashby	2000	2,845	2,789	8	24	16	2	39
	1990	2,717	2,676	6	27	8		
Athol	2010	11,584	10,804	95	413	100	15	157
7 (1.10)	2000	11,299	10,884	74	222	136		
	1990	11,451	11,179	51	102	119		
Ayer	2010	7,427	6,045	425	421	292	41	203
,	2000	7,287	6,261	415	342	240		
	1990	6,871	5,641	656	340	234		
Clinton	2010	13,606	10,884	341	1,844	207	129	201
	2000	13,435	11,849	346	1,558	155		
	1990	13,222	11,865	194	1,032	131		
Fitchburg	2010	40,318	27,502	1,614	8,727	1,527	89	859
=	2000	39,102	32,007	1,426	5,852	1,819		
	1990	41,194	34,936	1,186	3,957	1,115		
Gardner	2010	20,228	17,595	500	1,430	339	23	341
	2000	20,770	19,343	476	848	370		
	1990	20,125	18,993	396	558	178		
Groton	2010	10,646	9,964	45	193	301	8	135
	2000	9,547	9,282	33	109	107		
	1990	7,511	7,332	48	62	69		
Harvard	2010	6,520	5,668	259	264	221	2	106
	2000	5,981	5,484	269	364	131		
	1990	12,329	9,838	1,451	673	367		
Hubbardston	2010	4,382	4,225	21	63	22	7	44
	2000	3,909	3,846	6	52	22		
	1990	2,797	2,755	7	27	8		
Lancaster	2010	8,055	6,568	572	655	145	30	85
	2000	7,380	6,237	783	549	99		
	1990	6,661	5,758	399	409	95		
Leominster	2010	40,759	30,745	1,826	5,900	1,169	363	756
	2000	41,303	35,982	1,529	4,544	1,093		
	1990	38,145	33,545	779	3,161	660		
Lunenburg	2010	10,086	9,451	79	240	169	15	132
	2000	9,401	9,120	65	108	94		
	1990	9,117	8,900	60	88	69	_	
Petersham	2010	1,234	1,204	2	13	6	0	9
	2000	1,180	1,147	8	13	12		
Dhillin eta :	1990	1,131	1,105	7	2	17	_	00
Phillipston	2010	1,682	1,593	20	38	9	0	22
	2000	1,621	1,584	6	7	8		
Davialatan	1990	1,485	1,465	0	5	15	_	
Royalston	2010	1,258	1,203	3	33	10	0	9
	2000	1,254 1,147	1,237 1,132	1	14 7	7		
Chirley	1990	1,147		5 574		3	44	400
Shirley	2010	7,211	5,739	574	561	217	11	109
	2000	6,373	5,347	428	437	169		
Ctarling	1990	6,118	5,252	405	269	192	-	67
Sterling	2010	7,808	7,441	52	158	85	5	67
	2000	7,257	7,116	42	59	37		
	1990	6,481	6,336	40	73	32		l

Α		
4	7	

Templeton	2010	8,013	7,656	52	153	49	4	99
·	2000	6,799	6,673	24	98	34		
	1990	6,438	6,349	25	49	15		
Townsend	2010	8,926	8,506	54	163	91	8	104
	2000	9,198	8,972	67	108	44		
	1990	8,496	8,336	77	61	22		
Westminster	2010	7,277	6,868	62	193	84	7	63
	2000	6,907	6,734	32	77	89		
	1990	6,191	6,113	11	37	30		
Winchendon	2010	10,300	9,476	133	351	202	7	131
	2000	9,611	9,223	77	195	96		
	1990	8,805	8,620	19	86	80		
2010 Total		236,475	197,804	6,791	22,025	5,337	768	3,750
2000 Total		228,005	206,533	6,127	15,672	4,814		
1990 Total		223,865	203,479	5,829	11,067	3,490		
% Change								
1990-2000		1.84%	1.50%	5.11%	41.61%	37.94%		
% Change 2000-2010		3.71%	-4.2%	10.8%	40.5%	10.9%		

Sources: U.S. Department of Commerce, Bureau of the Census

Disclaimer: Please refer to Census 2000 for racial breakdown categories.

Dwelling Units

Census 2010 data was used for Table 7. As indicated before, all other tables in this section utilize 2000 Census Data. These tables summarize dwelling unit statistics for each community. In 1990, the total number of dwelling units amounted to 86,940 in the Montachusett Region. In 2000, this number increased 3.9% to 90,307. In 2010, dwelling units in the region reached 98,438. The region as a whole experienced an increase in total dwelling units of 9% between 2000 and 2010. Only one community, Harvard, experienced a decrease of dwelling units. At the local level, eleven communities underwent a 10% or more increase to their total dwelling units. An increase in dwelling units will typically correspond to an increase in vehicle trips whether they are from single family homes, condos, or apartments.

^{*} Includes Eskimos and Aleutians

²⁰⁰⁰ data1 Includes Japanese, Chinese, Filipino, Korean, Asian Indian, Vietnamese Hawaiian, Guamian and all other Asians



Table 7 Total Dwelling Units 1980-2010

		Number of Dwe	elling Units		% Change	% Change	%Change
Community	1980	1990	2000	2010	'80-'90	'90-'00	00-10
Ashburnham	1,849	2,279	2,204	2,599	23.3%	-3.3%	17.9%
Ashby	802	959	1,011	1,191	19.6%	5.4%	17.8%
Athol	4,212	4,840	4,824	5,231	14.9%	-0.3%	8.4%
Ayer	2,802	2,891	3,154	3,462	3.2%	9.1%	9.8%
Clinton	4,943	5,635	5,844	6,397	14.0%	3.7%	9.5%
Fitchburg	15,347	16,665	16,002	17,117	8.6%	-4.0%	7.0%
Gardner	7,477	8,654	8,838	9,126	15.7%	2.1%	3.3%
Groton	2,249	2,774	3,393	3,989	23.3%	22.3%	17.6%
Harvard	2,807	3,141	2,225	2,047	11.9%	-29.2%	-8.0%
Hubbardston	623	1,025	1,360	1,662	64.5%	32.7%	22.2%
Lancaster	2,010	2,095	2,141	2,614	4.2%	2.2%	22.1%
Leominster	12,988	15,533	16,976	17,873	19.6%	9.3%	5.3%
Lunenburg	3,133	3,486	3,668	4,133	11.3%	5.2%	12.7%
Petersham	364	448	474	546	23.1%	5.8%	15.2%
Phillipston	304	631	739	802	107.6%	17.1%	8.5%
Royalston	358	469	526	574	31.0%	12.2%	9.1%
Shirley	1,829	2,183	2,156	2,427	19.4%	-1.2%	12.6%
Sterling	1,793	2,308	2,637	2,965	28.7%	14.3%	12.4%
Templeton	2,082	2,276	2,597	3,139	9.3%	14.1%	20.9%
Townsend	2,404	2,894	3,184	3,385	20.4%	10.0%	6.3%
Westminster	1,982	2,405	2,694	2,960	21.3%	12.0%	9.9%
Winchendon	2,636	3,349	3,660	4,199	27.0%	9.3%	14.7%
Total	74,994	86,940	90,307	98,438	15.9%	3.9%	9.0%

Source: 1980, 1990, 2000, 2010 U.S. Department of Commerce, Bureau of the Census Note: All housing counts include all units. (vacant, seasonal and migrating units)

Source: U.S. Census Bureau 2000

Total houses owned and rented in the Region increased by 4,896 units from 80,366 in 1990 to 85,262 in 2000. Of these 85,262 houses, 66.5% were owned and 33.5% rented. The following tables show a detailed breakdown of the housing characteristics for the Montachusett Region.

Table 8
Renter Occupied

Kenter O	ccupieu
Fitchburg	48.40%
Clinton	45.90%
Gardner	45.40%
Ayer	44.30%
Leominster	42.10%

Source: U.S. Census Bureau 2000

Four communities had over 90% of the total housing stock owner occupied. Not surprisingly the larger cities had a greater percentage of renter occupied units

Table 9
Owner Occupied

Ashby	91.90%
Hubbardston	91.40%
Phillipston	90.90%
Harvard	90.50%





Table 10 Homes Ownership and Rental 2000

		Not	Total	
Community	Mortgaged	Mortgaged	Owned	Rented
Community	Mortgagea	Mortgagea	Owned	rtented
Ashburnham	1125	357	1714	215
Ashby	552	153	899	79
Athol	1783	853	3156	1331
Ayer	999	309	1661	1321
Clinton	1558	747	3028	2569
Fitchburg	3736	1850	7708	7235
Gardner	2439	1048	4520	3762
Groton	2008	357	2740	528
Harvard	1110	324	1638	171
Hubbardston	768	177	1195	113
Lancaster	1059	374	1622	427
Leominster	5465	2119	9545	6946
Lunenburg	1861	807	3085	450
Petersham	152	73	362	76
Phillipston	350	65	527	53
Royalston	181	71	393	56
Shirley	810	280	1457	610
Sterling	1471	461	2186	387
Templeton	1240	438	1996	415
Townsend	1907	355	2624	486
Westminster	1424	582	2169	360
Winchendon	1546	411	2492	955
Total	33,544	12,211	56,717	28,545
As % of Total	37.1%	13.5%	66.5%	33.5%

Source: 2000 Department of Commerce, Bureau of the Census

Table 11 Tenure 2000

	Total	Owner	As % of	Renter	As % of
Community	Occupied	Occupied	Total	Occupied	Total
		-		•	
Ashburnham	1,929	1,714	88.9	215	11.1
Ashby	978	899	91.9	79	8.1
Athol	4,487	3,156	70.3	1,331	29.7
Ayer	2,982	1661	55.7	1321	44.3
Clinton	5,597	3028	54.1	2569	45.9
Fitchburg	14,943	7708	51.6	7235	48.4
Gardner	8,282	4520	54.6	3762	45.4
Groton	3,268	2740	83.8	528	16.2
Harvard	1,809	1638	90.5	171	9.5
Hubbardston	1,308	1195	91.4	113	8.6
Lancaster	2,049	1622	79.2	427	20.8
Leominster	16491	9545	57.9	6946	42.1
Lunenburg	3535	3085	87.3	450	12.7
Petersham	438	362	82.6	76	17.4
Phillipston	580	527	90.9	53	9.1
Royalston	449	393	87.5	56	12.5
Shirley	2067	1457	70.5	610	29.5
Sterling	2573	2186	85	387	15
Templeton	2411	1996	82.8	415	17.2
Townsend	3110	2624	84.4	486	15.6
Westminster	2529	2169	85.8	360	14.12
Winchendon	3447	2492	72.3	955	27.7
Total	85,262	56,717	66.5	28,545	33.5

Source: 2000 Department of Commerce, Bureau of the Census

The communities with larger total population in the region had a greater percentage of larger household sizes. Table 12 shows that in 2000, there were 2.2 times more family households than non-family households within the region. Out of 85,313 households, 31.5% or 26,862 are 2-person households.



Table 12 2000 Number of Family Households By Household Type and Household Size

	T 4	Бу	Household						1
0	Type of	4	0		ımber in Hou		0	-	T-1-1
Community	Household	1 person	2 persons	3 persons	4 persons	5 persons	6 persons	7 +	Total
A = = =	C:		550	205	204	405	40	04	4544
Ashburnham	Family	204	550	365	391	165	49	21	1541
A - I- I	Non-family	301	75	9	2	0	1	0	388
Ashby	Family	4.40	279	181	200	81	27	15	783
A.I. I	Non-family	148	40	3	3	1	0	0	195
Athol	Family		1309	655	616	249	95	46	2970
	Non-family	1274	200	31	10	1	1	0	1517
Ayer	Family		771	462	358	129	37	16	1773
	Non-family	979	202	20	3	3	20	0	1227
Clinton	Family		1,370	861	696	319	103	51	3400
	Non-family	1850	308	271	8	2	0	2	2441
Fitchburg	Family		3774	2,216	1851	916	345	261	9363
	Non-family	4526	837	124	56	19	12	6	5580
Gardner	Family		2210	1,180	1083	425	129	59	5086
	Non-family	2687	431	44	19	10	4	1	3196
Groton	Family		826	571	741	340	67	23	2568
	Non-family	558	125	10	4	3	0	0	700
Harvard	Family		571	303	423	147	38	12	1494
	Non-family	259	51	4	3	1	0	0	318
Hubbardston	Family		390	220	279	117	41	24	1071
	Non-family	179	47	5	6	0	0	0	237
Lancaster	Family		563	372	367	165	58	27	1552
	Non-family	392	83	15	3	3	0	1	497
Leominster	Family		4418	2677	2394	991	298	124	10902
	Non-family	4604	585	90	25	65	4	2	5375
Lunenburg	Family		1079	645	602	245	71	26	2668
	Non-family	712	141	9	3	1	1	0	867
Petersham	Family		126	72	65	23	9	4	299
	Non-family	119	18	1	1	0	0	0	139
Phillipston	Family		158	101	120	49	9	6	443
•	Non-family	102	31	2	0	1	1	0	137
Royalston	Family		127	69	80	35	9	10	330
•	Non-family	92	24	2	1	0	0	0	119
Shirley	Family		551	354	350	110	50	11	1426
,	Non-family	524	104	7	5	0	1	0	641
Sterling	Family		778	482	531	205	55	18	2069
3	Non-family	394	92	13	4	1	0	0	504
Templeton	Family		710	413	436	184	49	17	1809
	Non-family	474	102	16	6	2	0	2	602
Townsend	Family		758	596	699	291	102	30	2476
	Non-family	501	112	13	5	2	1	0	634
Westminster	Family		781	461	432	213	50	17	1954
	Non-family	447	106	16	6	0	0	0	575
Winchendon	Family	-1-11	875	571	614	257	107	53	2477
VVIIIGIIGIIGOII	Non-family	767	174	16	9	237	2	0	970
Total	Family	101	22974	13827	13328	5656	1798	871	58,454
ıvlai	•	21889	3888	721	182	117	48	14	26,859
	Non-family	∠1009	3000	121	102	117	40	14	∠0,659

Source: 2000 Department of Commerce, Bureau of the Census



Table 13 Total Number of Households By Household Size

				ehold Size				1990	2000
Community	1 pers	2 pers	3 pers	4 pers	5 pers	6 pers	7 or more	Total	Total
Ashburnham	301	625	374	393	165	50	0	1,834	1,908
Ashby	148	319	184	203	82	27	15	892	978
Athol	1,274	1,509	686	626	250	96	46	4,379	4,487
Ayer	979	973	482	361	132	39	16	2,681	2,982
Clinton	1,850	1,678	888	704	321	103	53	5,320	5,597
Fitchburg	4,526	4,611	2,340	1,907	935	357	267	15,363	14,943
Gardner	2,687	2,641	1,224	1,102	435	133	60	7,979	8,282
Groton	558	951	581	745	343	67	23	2,577	3,268
Harvard	259	622	307	424	147	38	12	2,977	1,809
Hubbardston	179	437	225	285	117	41	24	954	1,308
Lancaster	392	646	387	370	168	58	28	1,910	2,049
Leominster	4,604	5,276	2,767	2,419	997	302	126	14,834	16,491
Lunenburg	712	1,220	654	605	246	72	26	3,252	3,535
Petersham	119	144	73	66	23	9	4	391	438
Phillipston	102	189	103	120	50	10	6	508	580
Royalston	92	151	71	81	35	9	10	404	449
Shirley	524	655	361	355	110	51	11	2,089	2,067
Sterling	394	870	495	535	206	55	18	2,198	2,573
Templeton	474	812	429	442	186	49	19	2,195	2,411
Townsend	501	870	609	704	293	103	30	2,761	3,110
Westminster	447	887	477	438	213	50	17	2,175	2,529
Winchendon	767	1,049	587	623	259	109	53	3,052	3,447
Total	21889	27135	14304	13508	5713	1828	864	80,725	85,241

Source: 2000 U.S. Department of Commerce, Bureau of the Census

Income Levels

In 2000, the most drastic change to occur to per capita income occurred in Harvard, as it rose from \$17,937 in 1990 to become the region's highest at \$40,867 in 2000, surpassing Groton (\$33,877) - (see Tables 14 and 15.) There were two notable reasons for the drastic change. First, Ft. Devens was included in the data for the 1990, which detracted from high income residents living within the community. Secondly, as housing prices and demand surged in areas closer to Boston, Harvard benefited by attracting high-income residents. Sterling, with a per capita income of \$28,844, ranked third highest in the region. Generally per capita income increased in virtually every community between 2000 and 2009 (see Table 14).

Athol (\$16,845) surpassed Fitchburg (\$17,256) as the community with the lowest per capita income in the region. Rounding out the bottom five communities are Royalston (\$18,297), Gardner (\$18,624), and Phillipston (\$18,706). Besides Winchendon (\$18,798), the remaining communities' per capita income ranged from \$20,000 to \$26,400.

The per capita income is a useful indicator to determine the need for public transportation. The lower the per capita income, the more difficult it is for residents to be able to afford an automobile, especially when gas prices are high. Public transportation can bridge the gap, and provide much needed access to places of employment.

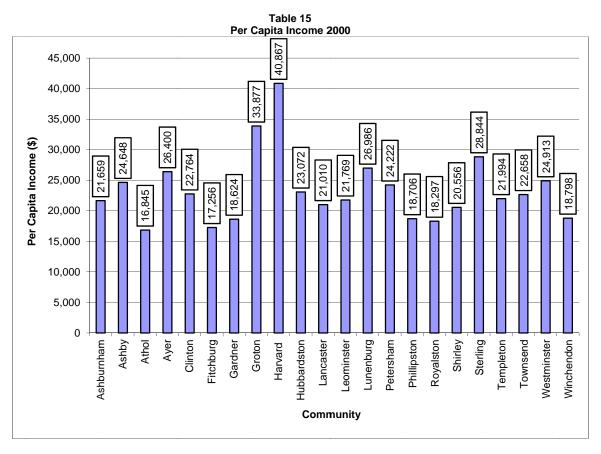


Table 14 2005-2009 Median Per Capita Income

2005-2009 Median Fer	Capita income
Ashburnham	\$30,665
Ashb y	\$28,787
Athol	\$23,357
Ayer	\$30,986
Clinton	\$29,200
Fitchburg	\$22,311
Gardner	\$23,690
Groton	\$44,756
Harvard	\$46,360
Hubbardston	\$30,329
Lancaster	\$30,151
Leominster	\$27,471
Lunenburg	\$35,717
Petersham	\$23,225
Phillipston	\$26,350
Royalston	\$29,995
Shirley	\$25,441
Sterling	\$39,701
Templeton	\$24,171
Townsend	\$29,140
Westminster	\$29,812
Winchendon	\$23,095

Source: American Community Survey 2005 – 2009 5 Year Estimates





Employment Activity

Employment statistics are used in forecasts of the transportation system. Most data is divided into two categories: employment by place of work, and labor force by place of residence. The former is used in transportation models to forecast future trends. The number of people working in a community or region affects traffic conditions and how well a transportation network can handle increased work-based trips. Labor force data by place of residence describes the workers living in each community.

The Executive Office of Labor and Workforce Development maintain labor market information for Massachusetts communities. Statistics from 2010 indicate that the unemployment rate percentage has increased to double digits in nine of the region's twenty-two communities. Fitchburg had the highest number of unemployed, followed by Athol (11.8%), Gardner (11.6%), Winchendon (11.5%) and Leominster (11%).

Statistics from 2000 show that the unemployment rate for the Montachusett Region was 2.9%, which is an increase since the year 2000.



Table 16
2010 Labor Force Characteristics

Community	Persons in Labor Force 2010	Employed 2010	Unemployed 2010	Unemployment Rate 2010 (Percentage)
Ashburnham	3,127	2,817	310	9.9
Ashby	1,655	1,495	160	9.7
Athol	5,411	4,770	641	11.8
Ayer	4,485	4,112	373	8.3
Clinton	7,644	6,861	783	10.2
Fitchburg	19,247	16,954	2,293	11.9
Gardner	9,839	8,700	1,139	11.6
Groton	5,645	5,289	356	6.3
Hubbardston	2,492	2,278	214	8.6
Lancaster	3,139	2,834	305	9.7
Leominster	20,831	18,547	2,284	11.0
Lunenburg	5,301	4,812	489	9.2
Petersham	696	636	60	8.6
Phillipston	944	850	94	10.0
Royalston	646	580	66	10.2
Shirley	3,793	3,491	302	8.0
Sterling	4,409	4,054	355	8.1
Templeton	3,871	3,448	423	10.9
Townsend	5,399	4,968	431	8.0
Westminster	3,821	3,460	361	9.4
Winchendon	4,913	4,348	565	11.5
TOTALS	117,309	105,305	12,004	10.2%

Source: MA Executive Office of Labor and Workforce Development

Table 17
2000 Labor Force Characteristics

Community	Persons in Labor Force 2000	Employed 2000	Unemployed 2000	Unemployment Rate 2000 (Percentage)
Ashburnham	3,022	2,940	82	2.7
Ashby	1,593	1,552	41	2.6
Athol	5,409	5,239	170	3.1
Ayer	4,189	4,090	99	2.4
Clinton	7,266	7,072	194	2.7
Fitchburg	18,548	17,890	658	3.5
Gardner	10,145	9,815	330	3.3
Groton	5,155	5,050	105	2.0
Hubbardston	2,236	2,177	59	2.6
Lancaster	2,888	2,807	81	2.8
Leominster	21,281	20,630	651	3.1
Lunenburg	5,233	5,089	144	2.8
Petersham	631	615	16	2.5
Phillipston	906	877	29	3.2
Royalston	630	614	16	2.5
Shirley	3,600	3,517	83	2.3
Sterling	4,210	4,123	87	2.1
Templeton	3,488	3,363	125	3.6
Townsend	5,127	5,007	120	2.3
Westminster	3,757	3,649	108	2.9
Winchendon	4,765	4,620	145	3.0
TOTALS	114,079	110,736	3,343	2.9%

Source: MA Executive Office of Labor and Workforce Development





Figure 1 illustrates region-wide employment by industry type in 1990 and 2000. The Montachusett Region has followed regional trends, in shifting towards the service sector, while manufacturing jobs continue to decline. The service industry, which includes professional, scientific, management, entertainment, food etc., has continued to boom throughout the 1990's. In 1990, 36,160 people were employed in the services, only 5,241 more jobs than in manufacturing. By 2000, that gap expanded to 22,795, as services rose (49,004) and manufacturing fell further (26,209). Despite the decline, manufacturing still remains one of the largest employing sectors in the region, along with services and wholesale/retail trade. The reduction in manufacturing reduces the amount of outside monetary flows into the region, and it also makes the region less economically diverse, two significant risks to the regional economy.

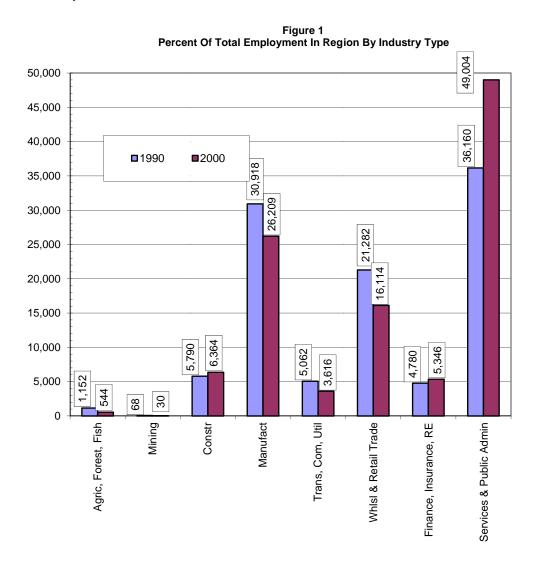




Table 18 breaks down industry sector jobs by community in 1990 and 2000. Almost 50% of the region's employment is concentrated in the historic commercial/industrial centers of Fitchburg, Leominster, Gardner, Clinton, and Athol. Overall, only 2,015 jobs were added to the Region from 1990.

Over the years, some employment has migrated from the traditional urban centers of the region such as Athol, Clinton and Fitchburg to suburban communities such as Lancaster, Groton and Ayer, which are strategically located near important transportation corridors. Many of these new employment centers are less centralized, dispersing traffic to new areas and also creating problems for non-auto transportation.

Table 18
Employment by Industry and Place of Work 1990-2000

Community	Year	Agric, Forest, Fish	Mining	Constr	Manufact	Trans, Com, Util	Whlsl & Retail Trade	Finance, Insurance, RE	Services & Public Admin	*Total	% of total
Ashburnham	1990	25	0	124	766	96	508	210	994	2,723	2.59%
Ashbumlam	2000	8	7	216	601	46	343	113		2,840	
Ashby	1990	37	0	155	408	73	290	22	440	1,425	1.35%
Ashby	2000	23	0	123	269	79	265	30	671	1,460	1.36%
Athol	1990	64	0	252	1,609	222	906	187	1,561	4,801	4.56%
Atrioi	2000	8	0	230	1,626	164	702	246	2,037	5,013	4.68%
Avor	1990	10	0	132	905	238	675	142	1,232	3,334	3.17%
Ayer	2000	14	0	192	951	172	584	181	1,725	3,819	3.56%
Clinton	1990	70	16	515	2,345	304	1,208	290	2,147	6,895	6.55%
Cilition	2000	22	0	349	1,723	237	926	404	2,959	6,620	6.17%
Eitobburg	1990	130	6	1,029	4,821	852	3,973	766	6,371	17,948	17.06%
Fitchburg	2000	26	0	758	4,086	534	2,899	763	7,911	16,977	15.83%
Gardner	1990	21	0	325	2,801	422	1,758	339	3,098	8,764	8.33%
Gardilei	2000	6	16	475	2,571	292	1,338	430	4,221	9,349	8.72%
Croton	1990	125	0	180	1,229	112	658	166	1,560	4,030	3.83%
Groton	2000	8	0	225	887	174	660	242	2,424	4,620	4.31%
Horword	1990	67	0	146	776	96	619	200	1,694	3,598	3.42%
Harvard	2000	65	0	70	498	20	313	184	1,416	2,566	2.39%
Hubbardston	1990	61	5	138	396	62	208	57	495	1,422	1.35%
Tubbaruston	2000	21	0	182	472	76	224	117	932	2,024	1.89%
Longostor	1990	77	0	172	754	115	608	101	1,566	3,393	3.22%
Lancaster	2000	5	0	250	674	91	382	153	1,511	3,066	2.86%
Loominator	1990	115	15	948	6,065	863	4,476	1,061	5,990	19,533	18.57%
Leominster	2000	91	0	1,045	5,148	619	2,993	999	8,685	19,580	18.26%
Lunanhura	1990	83	21	314	1,245	352	1,089	189	1,567	4,860	4.62%
Lunenburg	2000	21	7	375	817	254	686	315	2,184	4,659	4.34%
Petersham	1990	15	0	57	81	41	103	22	247	566	0.54%
retersham	2000	17	0	33	73	9	56	21	374	583	0.54%
Phillipston	1990	21	0	54	181	58	140	33	230	717	0.68%
Phillipsion	2000	22	0	67	200	15	150	21	357	832	0.78%
Povoleton	1990	9	0	30	170	22	100	15	167	513	0.49%
Royalston	2000	20	0	52	142	21	64	18	259	576	0.54%
Chirloy	1990	0	5	167	976	140	424	169	899	2,780	2.64%
Shirley	2000	4	0	205	609	131	351	143	1,260	2,703	2.52%
Ctarling	1990	34	0	225	880	204	648	281	1,024	3,296	3.13%
Sterling	2000	29	0	271	838	124	516	211	1,872	3,861	3.60%

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Tampleton	1990	54	0	187	874	216	608	96	1,032	3,067	2.92%
Templeton	2000	21	0	203	702	126	850	171	1,437	3,510	3.27%
Townsond	1990	57	0	209	1,517	172	898	198	1,322	4,373	4.16%
Townsend	2000	23	0	456	1,108	110	719	238	2,051	4,705	4.39%
Mantoinatar	1990	45	0	190	824	237	726	91	1,047	3,160	3.00%
Westminster	2000	70	0	193	872	206	494	200	1,452	3,487	3.25%
Winchendon	1990	32	0	241	1,295	165	659	145	1,477	4,014	3.82%
vvinchendon	2000	20	0	394	1,342	116	599	146	1,760	4,377	4.08%
Total	1990	1,152	68	5,790	30,918	5,062	21,282	4,780	36,160	105,212	
i Olai	2000	E 1 1	20	6 264	26.200	2616	16 111	E 246	40.004	407 227	

Source: U.S. Census 1990 and 2000

Services include: business & repair, personal, entertainment & recreation, health, educational and other professional

Urban Areas

The Department of Commerce's Census Bureau uses the term Urban Area (UA) to refer collectively to the Urbanized Areas (UZA) and Urban Clusters (UC) designated by the Census Bureau for the 2000 decennial Census.

Urbanized Area (UA) - An Urbanized Area is a statistical geographic entity designated by the Census Bureau, consisting of a central core and adjacent densely settled territory that together contain at least 50,000 people, generally with an overall population density of at least 1,000 people per square mile.

For the 2000 Census, the US Census Bureau has almost completely revised the criteria that define an Urbanized Area (UA). One revision has been a change in the type of census geography that ultimately determines the UA. To provide better delineation between urban and rural areas in the vicinity of large, densely populated Places (Incorporated Places and Census Designated Places), the Census now uses contiguous and densely populated Census Block Groups and Census Blocks. This revision, combined with several other revisions, has severely changed the shape and increased the population of the Leominster-Fitchburg, MA UA as many areas that were classified as urbanized in the 1990 Census are now rural and many areas that were classified as rural are now urbanized. A UA must still encompass a population of at least 50,000 people.

Urban Cluster (UC) - An Urban Cluster is a new statistical geographic entity designated by the Census Bureau for the 2000 Census, consisting of a central core and adjacent densely settled territory that together contains between 2,500 and 49,999 people. Typically, the overall population density is at least 1,000 people per square mile.

Changes in the Urban Area - Change in the name of the Fitchburg-Leominster, MA UA. The name was changed from Fitchburg-Leominster, MA UA to Leominster-Fitchburg, MA UA because the population of Leominster is now higher than the population of Fitchburg. The



populations of Fitchburg and Leominster in 1990 were 41,194 and 38,145 respectively. In 2000 their populations were 39,102 and 41,303 respectively.

The number and size of the urban areas has increased. The 1990 Fitchburg-Leominster, MA UA had an urban area in the MRPC cities of Fitchburg and Leominster and small sections of Lunenburg and Westminster. The 2000 Leominster-Fitchburg, MA UA now has an urban area that extends into sections of the MRPC communities of Gardner (city), Groton, Lancaster, Shirley, Templeton, Townsend, Winchendon, and the non MRPC community of Pepperell. The urban areas have changed in the MRPC communities of Westminster and Lunenburg.

The MRPC region now includes sections of other UAs. The Boston, MA--NH--RI UA has urban areas in the MRPC communities of Ayer, Groton, Harvard, Lancaster, and Shirley. The Worcester, MA--CT UA has urban areas in the MRPC communities of Clinton, Lancaster, and Sterling. (The non MRPC communities are listed in Table 19.)

There are now three UCs in the MRPC region - the Athol, MA UC, Pepperell, MA UC, and the Winchendon, MA UC. The Athol, MA UC has urban areas in the MRPC communities of Athol and the non MRPC communities of Orange and Wendell. The Pepperell, MA UC has urban areas in the MRPC community of Groton and the non MRPC community of Pepperell. The Winchendon, MA UC has urban areas in the MRPC community of Winchendon and in New Hampshire.

The population of the urban areas has increased. In the 1990 Census, the only MRPC urban area was the Fitchburg-Leominster, MA UA with a population of 82,249. But due to the revisions in the urban area criteria (see above), and a net increase in population, the population of Leominster-Fitchburg, MA UA within the MRPC region has increased to 112,617. The net increase in the population of this MRPC urban area was 30,368. This is 36.9% increase over 1990 Fitchburg-Leominster, MA UA.

The total population of Boston, MA--NH--RI UA (16,742) and Worcester, MA--CT UA (20,225) within the MRPC region is 36,967.

The total population of the Athol, MA UC (7,633), Pepperell, MA UC (658), and the Winchendon, MA UC (5,507) within the MRPC region is 13,798.

When these 2000 Census urban area populations are combined, the total urban area population of the MRPC region is 163,382. With a total regional population of 228,005, this places 71.7% of the region's population into urban areas. As described above, the 1990 urban population was 82,249 or 36.7% of the 223,865 total population. The 2000 Census shows a 98.6% increase in the urban area population over 1990 primarily due to the new urban area criteria.

Not including Fitchburg and Leominster, the following communities now have at least 50% of their population in urban areas: Athol - 67.6% (7,633 of 11,299), Ayer - 94.9% (6,913 of 7,287), Clinton - 99.5% (13,363 of 13,435), Gardner - 93.9% (19,508 of 20,770), Groton -

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62.5% (5,969 of 9,547), Lancaster - 68.9% (5,082 of 7,380), Lunenburg - 64.1% (6,023 of 9,401), Shirley - 58.8% (3,749 of 6,373), and Winchendon - 59.1% (5,682 of 9,611).

The population of the MRPC urban areas contain the following percentages of the urban area population they fall in (within Massachusetts): 60.4% of the Athol, MA UC, 0.4% of the Boston, MA--NH--RI UA, 99.7% of the Leominster-Fitchburg, MA UA, 8.3% of the Pepperell, MA UC, 100% of the Winchendon, MA UC, and 4.8% of the Worcester, MA--CT UA.

Table 19 below contains the data described in this section.



Table 19 Urban Area Population

Urbanized Area (UA) or Urban Cluster (UC) Designation	Total UA/UC Population (Pop.)	MRPC Communities within UA/UC	City (X)	NON MRPC Community	Community UA/UC Pop.
A+bal MA /IIC)**	12,634	Within Greece		Community	. op.
Athol, MA (UC)**	12,034	Athol			7,633
MRPC Communities Share of Total UC Population		Attioi			7,633
Boston, MANHRI (UA)**	3,935,254				7,000
BOSIOII, IVIAINI IRI (OA)	3,933,234	Ayer			6,913
		Groton*			5,035
		Harvard			72
		Lancaster*			998
		Shirley*			3,724
MRPC Communities Share of Total UA Population		Sililey			16,742
Leominster-Fitchburg, MA (UA)	112,943	T			10,742
Leoninster-Fitchburg, WA (OA)	112,343	Fitchburg	X		36,951
		Gardner	X		19,508
		Gardner Groton*	^		276
		Lancaster*			17
		Leominster	Х		40,140
		Lunenburg	^		6,023
		Lunenburg		Pepperell*	326
		Shirley*		repperen	25
		Templeton			2,942
		Townsend			4,198
		Westminster			2,362
		Winchendon*			175
MRPC Communities Share of Total UA Population		WillChendon			112,617
Pepperell, MA (UC)**	7,904				112,017
r eppereii, iviA (OC)	7,304	Groton*			658
MRPC Communities Share of Total UC Population		Gioton			658
Winchendon, MANH (UC)**	5,507				030
WILLOUGHACH, WIA THE (OC)	3,301	Winchendon*			
, , ,					5 507
		Willeliaoli			5,507 5,507
MRPC Communities Share of Total UC Population	418 631	Willendon			
	418,631				5,507
MRPC Communities Share of Total UC Population	418,631	Clinton			5,507 13,363
MRPC Communities Share of Total UC Population	418,631	Clinton Lancaster*			5,507 13,363 4,067
MRPC Communities Share of Total UC Population Worcester, MACT (UA)**	418,631	Clinton			5,507 13,363 4,067 2,795
MRPC Communities Share of Total UC Population Worcester, MACT (UA)** MRPC Communities Share of Total UA Population	418,631	Clinton Lancaster*			5,507 13,363 4,067
MRPC Communities Share of Total UC Population Worcester, MACT (UA)**	418,631	Clinton Lancaster* Sterling	otal 200	00 Population	5,507 13,363 4,067 2,795 20,225
MRPC Communities Share of Total UC Population Worcester, MACT (UA)** MRPC Communities Share of Total UA Population	418,631	Clinton Lancaster* Sterling MRPC To		00 Population	5,507 13,363 4,067 2,795 20,225 228,005
MRPC Communities Share of Total UC Population Worcester, MACT (UA)** MRPC Communities Share of Total UA Population	418,631	Clinton Lancaster* Sterling MRPC To	0 UA/U	C Population	5,507 13,363 4,067 2,795 20,225 228,005 163,382
MRPC Communities Share of Total UC Population Worcester, MACT (UA)** MRPC Communities Share of Total UA Population		Clinton Lancaster* Sterling MRPC Total 200 MRPC Total 200	0 UA/U 00 Rur	C Population al Population	5,507 13,363 4,067 2,795 20,225 228,005 163,382 64,623
MRPC Communities Share of Total UC Population Worcester, MACT (UA)** MRPC Communities Share of Total UA Population		Clinton Lancaster* Sterling MRPC Total 200 MRPC Total 200 MRPC Total 200 % of MRPC 2000 F	0 UA/U 00 Rur Populat	C Population al Population in UA/UC	5,507 13,363 4,067 2,795 20,225 228,005 163,382 64,623 71.7%
MRPC Communities Share of Total UC Population Worcester, MACT (UA)** MRPC Communities Share of Total UA Population Summary (totals and percentages)	% of	Clinton Lancaster* Sterling MRPC Total 200 MRPC Total 200	0 UA/U 00 Rur Populat	C Population al Population in UA/UC	5,507 13,363 4,067 2,795 20,225 228,005 163,382 64,623 71.7%
MRPC Communities Share of Total UC Population Worcester, MACT (UA)** MRPC Communities Share of Total UA Population Summary (totals and percentages) MRPC UA/UC Population Comparison Between 19	% of 90 & 2000	Clinton Lancaster* Sterling MRPC Total 200 MRPC Total 200 MRPC Total 200 MRPC 2000 F	0 UA/U 00 Rur Populat ation ir	C Population ral Population ion in UA/UC n Rural Areas	5,507 13,363 4,067 2,795 20,225 228,005 163,382 64,623 71.7% 28.3%
MRPC Communities Share of Total UC Population Worcester, MACT (UA)** MRPC Communities Share of Total UA Population Summary (totals and percentages)	% of 1990 Pop Total MRPC UA	Clinton Lancaster* Sterling MRPC Total 200 MRPC Total 200 MRPC Total 200 MRPC 2000 F	0 UA/U 00 Rur Populat lation ir	C Population al Population in UA/UC	5,507 13,363 4,067 2,795 20,225 228,005 163,382 64,623 71.7% 28.3%
MRPC Communities Share of Total UC Population Worcester, MACT (UA)** MRPC Communities Share of Total UA Population Summary (totals and percentages) MRPC UA/UC Population Comparison Between 19 1990 Fitchburg-Leominster, MA (UA)	% of 1990 & 2000 1990 Pop	Clinton Lancaster* Sterling MRPC To MRPC Total 200 MRPC Total 200 % of MRPC 2000 Population	0 UA/U 00 Rur Populat lation ir	C Population ral Population ion in UA/UC n Rural Areas	5,507 13,363 4,067 2,795 20,225 228,005 163,382 64,623 71.7% 28.3% 0. Change



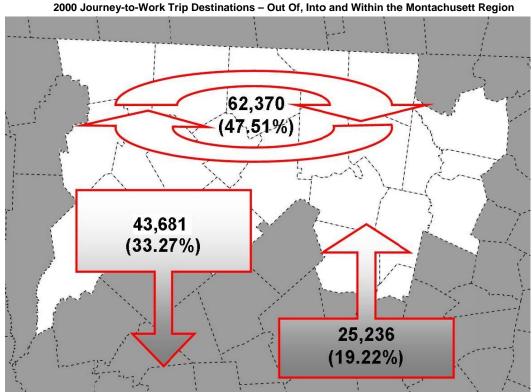
Transportation

Regional Work Travel Flows and Journey to Work

The 2000 U.S. Census Journey-to-Work data shows that there were 131,287 one-way (home to work) work trips to and from the Montachusett Region.

- 62,370 (47.51%) trips originated and were destined for jobs within the MRPC region
- 25,236 (19.22%) trips originated outside and were destined for jobs in the MRPC
- 43,681 (33.27%) trips originated in and were destined for jobs outside the MRPC region

This shows that approximately 67% of one-way trips to work are within the Montachusett Region which can put a strain on the transportation system.



Out of all 106,051 workers in the region, 28.10% (29,802) worked in their respective hometown.

A significant portion of the population worked in the Montachusett Region's largest commercial/industrial centers:



- 13.40% (14,211) worked in Leominster;
- 12.53% (13,285) in Fitchburg;
- 7.07% (7,503) in Gardner.

Travel to Worcester accounted for 5.94% (6,300) of the region's population and 1.93% (2,045) of workers in the Montachusett Region traveled to Boston. Out of all the communities, Harvard (6.78%), Groton (5.14%), and Shirley (4.31%) had the largest percentage of residents traveling to Boston for work.

Residence to Workplace Flows for MRPC Communities 2000													
Resid	Workplace												
		Hom	etown	Gar	dner	Fitch	nburg	Leom	inster	Word	ester	Bos	ston
Community	# of Workers	Amount	Percent										
Ashburnham	2,739	343	12.52%	266	9.71%	599	21.87%	286	10.44%	122	4.45%	49	1.79%
Ashby	1,408	228	16.19%	38	2.70%	280	19.89%	83	5.89%	39	2.77%	24	1.70%
Athol	4,964	1,915	38.58%	403	8.12%	235	4.73%	151	3.04%	193	3.89%	83	1.67%
Ayer	3,735	798	21.37%	10	0.27%	82	2.20%	20	0.54%	46	1.23%	132	3.53%
Clinton	6,630	1,653	24.93%	29	0.44%	130	1.96%	180	2.71%	550	8.30%	114	1.72%
Fitchburg	16,922	6,242	36.89%	419	2.48%	6,242	36.89%	2,933	17.33%	720	4.25%	135	0.80%
Gardner	9,326	3,612	38.73%	3,612	38.73%	746	8.00%	715	7.67%	611	6.55%	52	0.56%
Groton	4,438	997	22.47%	9	0.20%	24	0.54%	35	0.79%	26	0.59%	228	5.14%
Harvard	2,654	471	17.75%	6	0.23%	56	2.11%	28	1.06%	70	2.64%	180	6.78%
Hubbardston	2,039	267	13.09%	284	13.93%	123	6.03%	156	7.65%	276	13.54%	21	1.03%
Lancaster	3,039	720	23.69%	6	0.20%	133	4.38%	178	5.86%	230	7.57%	34	1.12%
Leominster	19,651	7,167	36.47%	252	1.28%	2,016	10.26%	7,167	36.47%	1,312	6.68%	404	2.06%
Lunenburg	4,865	923	18.97%	105	2.16%	833	17.12%	689	14.16%	291	5.98%	96	1.97%
Petersham	586	179	30.55%	29	4.95%	7	1.19%	9	1.54%	35	5.97%	10	1.71%
Phillipston	840	78	9.29%	178	21.19%	37	4.40%	45	5.36%	53	6.31%	5	0.60%
Royalston	560	87	15.54%	65	11.61%	30	5.36%	12	2.14%	34	6.07%	1	0.18%
Shirley	2,735	351	12.83%	0	0.00%	73	2.67%	106	3.88%	68	2.49%	118	4.31%
Sterling	3,897	515	13.22%	73	1.87%	219	5.62%	232	5.95%	894	22.94%	79	2.03%
Templeton	3,176	713	22.45%	810	25.50%	191	6.01%	235	7.40%	235	7.40%	14	0.44%
Townsend	4,443	800	18.01%	17	0.38%	315	7.09%	205	4.61%	73	1.64%	130	2.93%
Westminster	3,425	648	18.92%	329	9.61%	521	15.21%	422	12.32%	271	7.91%	97	2.83%
Winchendon	3,979	1,095	27.52%	563	14.15%	393	9.88%	324	8.14%	151	3.79%	39	0.98%
Regional Totals	106,051	29.802	28.10%	7.503	7.07%	13.285	12.53%	14.211	13.40%	6.300	5.94%	2.045	1.93%

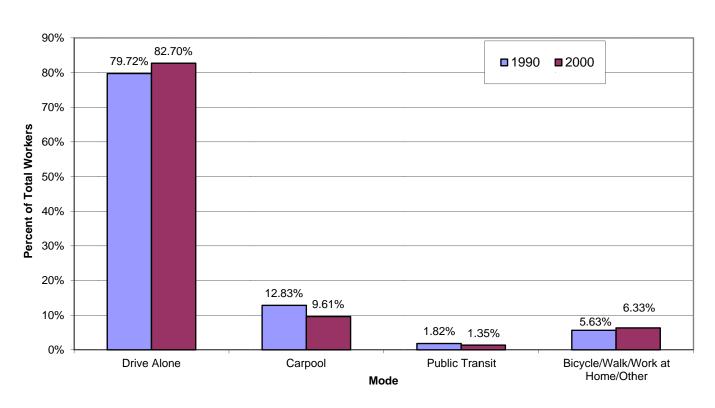


Method of Travel to Work

The percentage of drivers traveling alone has continued to increase in the region, and is the method used by the vast majority of the population. The amount of people carpooling and using public transportation has continued to decline. Meanwhile the number of people working at home, and walking to work has experienced an increase in 2000.

Mode to Work 1990 2000 Montachusett Montachusett MA Region Region Drive Alone 79.72% 82.70% 76.36% Carpool 12.83% 9.61% 9.36% Public Transit 1.82% 1.35% 8.70% Bicycle/Walk/Work at Home 5.63% 6.33% 5.58%

Mode of Travel to Work 1990 vs 2000



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Transportation Mode to Work

		1	1				ı raı	nspor	tatio	n IVIO	de to	Wor	K	1			1		T		1	1	
City/Town	Year	Workers 16 and over	Car, truck, or van	Drove alone	Carpooled	In 2-person carpool	In 3-person carpool	In 4 person carpool	In 5 or 6 person carpool	In 7 or-more person carpool	Public transportation	Bus or trolley bus	Streetcar or trolley car	Subway or elevated	Railroad	Ferryboat	Taxicab	Motorcycle	Bike/Walk/Other	Bicycle	Walked	Other means	Worked at home
Ashburnham	2000	2,820	2,716	2,490	226	205	7	6	0	8	23	7	0	0	16	0	0	0	25	0	17	8	56
	1990	2,635	2,470	2,192	278	261	17	0	0	0	58	7	0	11	18	0	22	8	99	0	81	18	
Ashby	2000	1,507	1,415	1,327	88	72	13	3	0	0	6	3	0	0	3	0	0	0	10	0	10	0	76
	1990	1,346	1,300	1,139	161	112	49	0	0	0	0	0	0	0	0	0	0	0	46	0	40	6	
Athol	2000	5,004	4,547	3,811	736	640	81	0	0	15	57	24	20	6	0	7	0	0	325	16	266	43	75
	1990	4,685	4,283	3,510	773	696	59	12	0	6	15	7	0	0	8	0	0	7	380	23	323	34	
Ayer	2000	3,861	3,587	3,248	339	306	33	0	0	0	78	0	0	6	72	0	0	14	125	8	98	19	57
	1990	3,609	3,414	2,884	530	464	66	0	0	0	49	0	0	0	36	0	13	14	132	17	106	9	
Clinton	2000	6,726	6,248	5,512	736	611	96	0	0	29	38	10	0	0	19	0	9	20	285	8	221	56	135
	1990	6,625	6,196	5,243	953	796	106	26	19	6	36	3	0	0	0	0	33	7	387	5	341	41	
Fitchburg	2000		15,431	13,151	2,280	1,859	232	60	93	36	378	168	0	0	72	0	138	19	940	9	681	250	361
	1990		15,990	13,322	2,668	2,182	327	95	32	32	331	230	0	0	54	0	47	8	1,011	42	852	117	
Gardner	2000	9,481	8,748	7,559	1,189	962	109	82	29	7	173	122	0	6	0	0	45	0	363	0	322	41	197
	1990	8,415	7,786	6,481	1,305	1,099	125	34	7	40	98	13	0	0	14	0	71	6	525	13	495	17	
Groton	2000	4,759	4,245	3,997	248	210	38	0	0	0	100	0	0	16	84	0	0	0	176	28	142	6	238
	1990	3,825	3,615	3,306	309	258	35	16	0	0	21	0	0	9	12	0	0	0	189	6	171	12	
Harvard	2000	2,752	2,427	2,315	112	87	13	0	12	0	89	0	0	0	89	0	0	0	63	10	32	21	173
	1990	7,113	5,103	4,094	1,009	720	151	56	22	60	948	876	6	0	59	0	7	7	1,055	76	846	133	
Hubbardston	2000	2,074	1,957	1,775	182	171	0	5	6	0	0	0	0	0	0	0	0	0	25	0	12	13	92
	1990	1,337	1,292	1,112	180	146	25	5	2	2	3	1	0	0	2	0	0	9	33	2	24	7	
Lancaster	2000	3,087	2,661	2,442	219	182	24	13	0	0	10	0	0	0	10	0	0	14	234	0	224	10	168
	1990	3,255	2,878	2,520	358	291	37	30	0	0	0	0	0	0	0	0	0	6	371	21	329	21	
Leominster	2000	19,854	18,538	16,740	1,798	1,515	159	98	14	12	343	93	0	24	98	0	128	22	506	19	339	148	445
	1990	19,089	18,140		2,267	1,816	291	119	33	8	230	99	0	0	40	0	91	0	719	21	539	159	
Lunenburg	2000	4,953	4,614	4,338	276	229	32	0	15	0	28	0	0	0	28	0	0	0	84	0	47	37	227
	1990		4,576	4,066	510	457	42	0	11	0	30	0	0	5	25	0	0	0	103	9	85	9	
Petersham	2000	591	464	405	59	53	6	0	0	0	3	0	0	2	1	0	0	0	77	0	70	7	47
	1990	523	447	376	71	66	5	0	0	0	7	5	0	2	0	0	0	0	69	0	54	15	
Phillipston	2000	850	803	745	58	52	6	0	0	0	2	2	0	0	0	0	0	2	8	0	6	2	35
	1990	668	638	539	99	86	11	0	0	2	0	0	0	0	0	0	0	0	30	0	21	9	
Royalston	2000	577	516	448	68	54	14	0	0	0	2	2	0	0	0	0	0	0	20	5	13	2	39
	1990	482	469	380	89	83	6	0	0	0	2	2	0	0	0	0	0	0	12	0	12	0	
Shirley	2000	2,791	2,647	2,427	220	207	13	0	0	0	30	0	0	0	23	0	7	0	42	39	3	0	72
	1990	3,006	2,875	2,541	334	307	27	0	0	0	51	0	0	0	51	0	0	0	80	8	51	21	
Sterling	2000	3,941	3,733	3,494	239	224	8	7	0	0	27	0	0	0	27	0	0	0	33	0	26	7	148
	1990	3,139	2,978	2,718	260	212	40	0	8	0	9	9	0	0	0	0	0	0	152	8	100	44	



City/Town	Year	Workers 16 and over	Car, truck, or van	Drove alone	Carpooled	In 2-person carpool	In 3-person carpool	In 4 person carpool	In 5 or 6 person carpool	In 7 or-more person carpool	Public transportation	Bus or trolley bus	Streetcar or trolley car	Subway or elevated	Railroad	Ferryboat	Taxicab	Motorcycle	Bike/Walk/Other	Bicycle	Walked	Other means	Worked at home
Templeton	2000	3,219	3,009	2,723	286	232	54	0	0	0	0	0	0	0	0	0	0	0	84	0	50	34	126
	1990	2,898	2,809	2,471	338	251	71	7	9	0	5	0	0	0	5	0	0	0	84	0	66	18	
Townsend	2000	4,786	4,532	4,202	330	264	46	0	20	0	23	8	0	0	15	0	0	6	43	7	26	10	182
	1990	4,308	4,168	3,793	375	319	48	0	8	0	10	0	0	10	0	0	0	9	121	7	114	0	
Westminster	2000	3,493	3,312	3,059	253	202	29	22	0	0	24	0	0	0	24	0	0	6	28	0	28	0	123
	1990	3,016	2,942	2,714	228	208	11	0	0	9	8	8	0	0	0	0	0	7	59	0	49	10	
Winchendon	2000	4,429	4,185	3,678	507	421	55	18	13	0	30	24	0	0	6	0	0	0	111	21	51	39	103
	1990	3,894	3,656	3,163	493	454	31	8	0	0	14	0	0	0	7	0	7	0	224	11	184	29	

Mean Travel Time to Work

Traditionally housing prices in the Montachusett Region have been below the average sales price in the metro Boston area. This has contributed to an increase in the number of people who have relocated from the east into the region. As a result, these additional residents commute longer distances thus average travel times have increased decade to decade.

The mean travel time to work by total means of transportation increased in every community in the Montachusett Region from 1990 to 2000. Harvard nearly doubled its mean travel time, as it experienced an increase of 16 minutes. This can be attributed to the closure of Ft. Devens in the mid 1990's. Groton (8.9 minute increase), Ayer (8.5 min), Royalston (8.0 min), Winchendon (7.4 min), and Townsend (7.1) all witnessed travel times increases over 7 minutes. The remaining communities saw mean travel times increases by less than 7 minutes.

Townsend (36.4 minutes), Hubbardston (35.5 minutes) and Royalston (35.1 minutes), had the longest commute times in the region. Fitchburg (23.2 minutes), Clinton (24.0 minutes) and Gardner (24.1 minutes) have the shortest mean travel times to work. With an increase in housing units, as described earlier, it can be assumed that more people are moving further away from the cities where a majority of the jobs are, and heading into the more rural areas to the west where the housing prices are lower.



Mean Travel Time to Work in Minutes Total, Means of Transportation 1990 vs. 2000

	1990	2000	Increase 1990 to 2000	% Change 1990 to 2000
Ashburnham	26.8	31.4	4.6	17.2%
Ashby	28.1	31.4	3.3	11.7%
Athol	19.3	24.6	5.3	27.5%
Ayer	19.8	28.3	8.5	42.9%
Clinton	21.6	24.0	2.4	11.1%
Fitchburg	19.8	23.2	3.4	17.2%
Gardner	19.9	24.1	4.2	21.1%
Groton	24.6	33.5	8.9	36.2%
Harvard	16.2	32.2	16.0	98.8%
Hubbardston	30.9	35.5	4.6	14.9%
Lancaster	20.3	26.2	5.9	29.1%
Leominster	20.6	25.5	4.9	23.8%
Lunenburg	23.8	26.0	2.2	9.2%
Petersham	25.0	29.5	4.5	18.0%
Phillipston	24.9	29.4	4.5	18.1%
Royalston	27.1	35.1	8.0	29.5%
Shirley	24.0	30.9	6.9	28.8%
Sterling	23.9	28.8	4.9	20.5%
Templeton	23.3	25.2	1.9	8.2%
Townsend	29.3	36.4	7.1	24.2%
Westminster	24.0	28.7	4.7	19.6%
Winchendon	22.1	29.5	7.4	33.5%



Environmental Justice

Environmental Justice can be thought of as "...fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. EPA has this goal for all communities and persons across this Nation. It will be achieved when everyone enjoys the same degree of protection from environmental and health hazards and equal access to the decision-making process to have a healthy environment in which to live, learn, and work." (Environmental Protection Agency)

According to the Federal Highway Administration (FHWA), there are three fundamental environmental justice principles:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
- 2. To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- 3. To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

Due to Title VI of the Civil Rights Act of 1964 that states "No person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance", The Montachusett Regional Planning Commission (MRPC) strives to make Environmental Justice part of its mission by continuously encouraging individuals from all types of backgrounds and income levels to participate in the transportation planning process by attending our monthly Joint Transportation Committee meetings as well as outreach through local meetings, papers and our MRPC or RTP websites. By running an effective public involvement program, proper transportation systems and services will properly meet the needs of all types of individuals, including minority and low-income areas.

The FHWA encourages the Metropolitan Planning Organizations (MPO's) to:

- Enhance their analytical capabilities to ensure that the long-range transportation plan and the transportation improvement program (TIP) comply with Title VI.
- Identify residential, employment, and transportation patterns of low-income and minority populations so that their needs can be identified and addressed, and the benefits and burdens of transportation investments can be fairly distributed.
- Evaluate and, where necessary, improve their public improvement process to eliminate participation barriers and engage minority and low-income populations in transportation decision making.



Environmental Justice Areas

The Montachusett Region's ethnic and racial mix is becoming more diverse as the number of Black, Hispanic, American Indian, Asian and other minority individuals living within the area increases. The region saw a 3.71% increase in population from 2000 to 2010 reaching a total population of 236,475. Of this population, there was a 4.2% decrease in Whites, 10.8% increase in Blacks, 40.5% increase in Hispanics and 10.9% in American Indian, Asian & Pacific Islanders. Table 6 earlier in the chapter shows the racial composition breakdown.

The minority population is predominately concentrated in the urban areas or their surrounding communities but has also increased in a majority of the suburban/rural areas. The Montachusett Area Regional Transit Authority (MART) is very active in addressing the needs of those areas with high numbers of minorities and low income households. The transit authority has a variety of ways that information can be gathered regarding where transit service is needed and how they can better serve the public. On a regular basis as part of their Transit Development Plans (TDP), the transit authority conducts a commuter rail and a fixed bus route survey on each train/bus where each and every rider can express their thoughts, concerns and ideas to the transit authority regarding service. The TDP regularly results in changes and modifications to the existing service in order to better serve the needs of the area riders. Those populations most commonly identified with Environmental Justice policies are a major part of that review and analysis.

Projects Located On Environmental Justice Areas

Using the MassGIS database for environmental justice populations, the following method was used to determine EJ populations:

- Minority populations greater than 25%
- Median Household income that was less than 65% of the statewide average (\$46,947)
- English Speaking less than or equal to 75% of the population
- Foreign Born 25% or more of the population

Please refer to the maps at the end of the chapter that illustrate by block group, Environmental Justice areas in the Montachusett Region.



Short Range Projects

In order to assess the potential impact of transportation/transit projects on identified Environmental Justice areas in the Montachusett Region, a review of the Short Range projects currently scheduled on the Transportation Improvement Program (TIP) with the region's minority population (by census block group) was conducted.

From the Short Range Element, all 20 highway/transit projects were mapped in the Montachusett Region. These projects were categorized into two groups: those projects that are essentially improvement projects on existing roadways or bridges; and those projects that would result in new construction or significant expansion. The following tables summarize the short range projects.

Improvement Projects

Community	Project
Athol	Bridge Replacements – BR# A-15-009 Chestnut Hill Avenue (Route 32) Over The Miller's River & A-15-012 Over the B&M RR
Athol/Petersham	Resurfacing & Related Work on Route 32, From 1 mile north of Route 101 to Route 2
Fitchburg	Resurfacing Of Route 31 (Ashby State Road), From John Fitch Highway Northerly To Scripture Road, Includes F-04-023
Lancaster	Reconstruction On Route 70 (Lunenburg Road) At Old Union Turnpike
Lancaster	Intersection Improvements @ Five Corners: Route 110 (Bolton Road, High Street Extension), Center Bridge Road, Old Common Road
Leominster	Bridge Replacement, L-08-014, Whitney Street Over The Monoosnoc Brook
Leominster	Bridge Reconstruction, L-08-024, Route 12 Over Route 2 (Eb & Wb)
Leominster	Intersection & Signal Improvements At Merriam Avenue And Lindell Avenue
Leominster	Reconstruction On Route 13, From Hawes Street To Prospect Street
Leominster	Superstructure Replacement, L-08-028, Hamilton Street Over Route 2
Royalston	Bridge Replacement, R-12-004, Northeast Fitzwilliam Road Over The Lawrence Brook
Royalston	Bridge Replacement, R-12-006, North Fitzwilliam Road Over Lawrence Brook
Sterling	I-190
Templeton	Reconstruction Of Baldwinville Road, From Route 202/68 To Patriots Road (Approx. 3 Miles)
Westminster	Bridge Replacement, W-28-017, Route 12 (Ashburnham Road) Over Phillips Brook
Winchendon	Multi-Use Trail Construction (North Central Pathway - Phase V) Includes W-39-023, W-39-024 & W-39-028

New Construction

Community	Project
Fitchburg	Wachusett Station
Leominster	North Leominster MBTA Garage
Winchendon	North Central Pathway Phase 5 - Construction of trail segment



These projects were then mapped against the MassGIS Environmental Justice Populations data layer. This layer represents neighborhoods across the state with high minority, non-English speaking, low-income, and foreign-born populations. Data in this layer were derived from Summary File 3 at the block group level (Summary Level 150) from 2000 U.S. Census data).

The following projects were identified as lying within Environmental Justice populations:

Community	Project
Athol	Bridge Replacements – BR# A-15-009 Chestnut Hill Avenue (Route 32) Over The Miller's River & A-15-012 Over the B&M RR
Lancaster	Reconstruction On Route 70 (Lunenburg Road) At Old Union Turnpike
Leominster	Bridge Replacement, L-08-014, Whitney Street Over The Monoosnoc Brook
Leominster	Bridge Reconstruction, L-08-024, Route 12 Over Route 2 (Eb & Wb)
Leominster	Reconstruction On Route 13, From Hawes Street To Prospect Street
Leominster	Superstructure Replacement, L-08-028, Hamilton Street Over Route 2

All of the above projects are considered improvement projects that lie within the existing roadway structure and will assist with improving the safety in these areas while having a minimal negative impact during the construction process. Any impacts from these projects were considered during the Transportation Evaluation Criteria (TEC) scoring, which is done for all Transportation Improvement Projects. These scores are then reviewed by the Montachusett Joint Transportation Committee where recommendations to the MPO were made.

