

Pioneer Valley Planning Commission and Economic Development District

The Region's Comprehensive Economic Development Strategy (CEDS)

Analysis of Regional Economic Conditions CEDS Data Appendix Updated 2017

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Comprehensive Economic Development Strategy (CEDS) Data Appendix *

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AN ANALYSIS OF REGIONAL ECONOMIC CONDITIONS



Boulevard Machine and Gear, Inc., Springfield Photo: Ed Cohen

A Snapshot of the Pioneer Valley Region

Located in the midwestern section of Massachusetts and covering 1,179 square miles, the Pioneer Valley region and **Economic Development** District (EDD) encompasses the fourth largest metropolitan area in New England. The region is bisected by the Connecticut River and is bounded to the north by Franklin County, to the south by the state of Connecticut, to the east by the Quabbin Reservoir and Worcester County, and to the west by Berkshire County. The

Pioneer Valley region, which constitutes the 43 cities and towns within the Hampshire and Hampden county areas, is home to about 631,982 people and the urbanized areas of Springfield, Chicopee, and Holyoke.

Springfield, the third largest city in Massachusetts, is the region's cultural and economic center. Springfield is home to several of the region's largest employers, including Massachusetts Mutual Life Insurance Company, Baystate Health, Mercy Medical Center, and Solutia, Inc., a subsidiary of Eastman Chemical. Major cultural institutions include the Springfield Symphony, City Stage, the Mass Mutual Convention Center, Quadrangle Museums, the Basketball Hall of Fame, and the Dr. Seuss National Memorial Sculpture Garden.

The cities of Chicopee and Holyoke were the first planned industrial communities in the nation. Merchants built an elaborate complex of mills, workers' housing, dams, and canal systems that evolved into cities. While many of the historic mills and industries are now gone, a number of 19th and 20th century structures are maintained and improved through municipal preservation and revitalization initiatives.

Unique within the Commonwealth of Massachusetts, the Pioneer Valley region contains a diverse economic base, internationally known educational institutions, and limitless scenic beauty. Dominant physical characteristics include the broad fertile agricultural valley formed by the Connecticut River, the Holyoke Mountain range that traverses the region from Southwick to Pelham, and the foothills of the Berkshire Mountains. Prime agricultural land, significant wetlands, and scenic rivers are some of the region's premier natural resources. Choices in life-style range from contemporary downtown living to stately historic homes, characteristic suburban neighborhoods, and rural living in very small communities—a variety that contributes to the diversity and appeal of the region. The unique combination of natural

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beauty, cultural amenities, and historical character make the Pioneer Valley region an exceptional environment in which to live, work, and play.

The State of the Pioneer Valley Region

The People

Changes in Population

Between 2005 and 2015, the Pioneer Valley region's population increased by about 2.5 percent. While some of that growth occurred in the urban areas, many of the more rural or suburban towns saw the most significant proportional increases. Collectively, the population of the more urban communities of Agawam, Chicopee, Holyoke, Springfield, Westfield, and West Springfield grew just under 2 percent between 2005 and 2015, with much of this growth occurring in Chicopee and Westfield. This shows a slight resurgence from the trend that occurred during the 1990s when the region's three largest cities — Springfield, Chicopee, and Holyoke — all experienced population declines. Indeed, between 2005 and 2015, all three cities experienced either stable population or slight growth instead of decline.

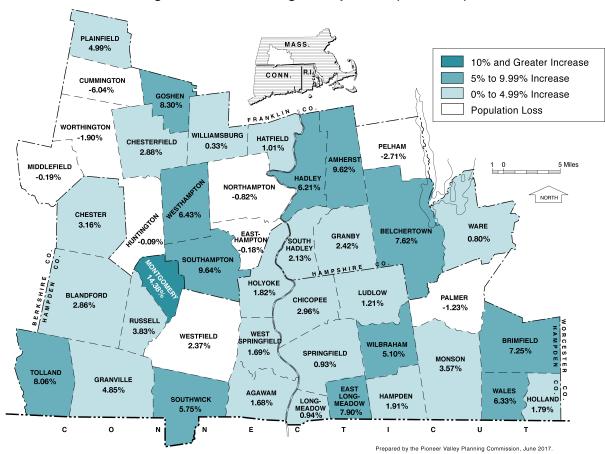


Figure 1: Percent Change in Population (2005-2015)

Data Source: U. S. Census Bureau Population Estimates Program, 2005-2015

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Table 1: Changes in Total Population of the Pioneer Valley Region (1990 - 2015)

Geography	1990	2005	2015	Avg. Annual Change 1990-2005	Avg. Annual Change 2005-2015
United States	248,709,873	295,516,599	320,896,618	18.8%	8.6%
Massachusetts	6,016,425	6,403,290	6,784,240	6.4%	5.9%
Pioneer Valley Region	602,878	616,530	631,982	2.3%	2.5%
Hampden County	456,310	461,147	470,690	1.1%	2.1%
Hampshire County	146,568	155,383	161,292	6.0%	3.8%
Agawam	27,323	28,363	28,839	3.8%	1.7%
Amherst	35,228	36,338	39,833	3.2%	9.6%
Belchertown	10,579	13,872	14,929	31.1%	7.6%
Blandford	1,187	1,224	1,259	3.1%	2.9%
Brimfield	3,001	3,488	3,741	16.2%	7.3%
Chester	1,280	1,330	1,372	3.9%	3.2%
Chesterfield	1,048	1,214	1,249	15.8%	2.9%
Chicopee	56,632	55,110	56,741	-2.7%	3.0%
Cummington	785	927	871	18.1%	-6.0%
East Longmeadow	13,367	15,026	16,213	12.4%	7.9%
Easthampton	15,537	16,059	16,030	3.4%	-0.2%
Goshen	830	988	1,070	19.0%	8.3%
Granby	5,565	6,202	6,352	11.4%	2.4%
Granville	1,403	1,547	1,622	10.3%	4.8%
Hadley	4,231	5,039	5,352	19.1%	6.2%
Hampden	4,709	5,125	5,223	8.8%	1.9%
Hatfield	3,184	3,265	3,298	2.5%	1.0%
Holland	2,185	2,462	2,506	12.7%	1.8%
Holyoke	43,704	39,958	40,684	-8.6%	1.8%
Huntington	1,987	2,183	2,181	9.9%	-0.1%
Longmeadow	15,467	15,750	15,898	1.8%	0.9%
Ludlow	18,820	21,215	21,472	12.7%	1.2%
Middlefield	392	528	527	34.7%	-0.2%
Monson	7,776	8,486	8,789	9.1%	3.6%
Montgomery	759	751	859	-1.1%	14.4%
Northampton	29,289	28,775	28,540	-1.8%	-0.8%
Palmer	12,054	12,343	12,191	2.4%	-1.2%
Pelham	1,373	1,367	1,330	-0.4%	-2.7%
Plainfield	571	621	652	8.8%	5.0%
Russell	1,594	1,721	1,787	8.0%	3.8%
South Hadley	16,685	17,373	17,743	4.1%	2.1%
Southampton	4,478	5,611	6,152	25.3%	9.6%
Southwick	7,667	9,208	9,737	20.1%	5.7%
Springfield	156,983	152,925	154,341	-2.6%	0.9%
Tolland	289	459	496	58.8%	8.1%
Wales	1,566	1,786	1,899	14.0%	6.3%
Ware	9,808	9,810	9,888	0.0%	0.8%
West Springfield	27,537	28,216	28,693	2.5%	1.7%
Westfield	38,372	40,726	41,690	6.1%	2.4%
Westhampton	1,327	1,539	1,638	16.0%	6.4%
Wilbraham	12,635	13,928	14,638	10.2%	5.1%
Williamsburg	2,515	2,461	2,469	-2.1%	0.3%
Worthington	1,156	1,211	1,188	4.8%	-1.9%

Source: U. S. Decennial Census, 1990-2015

Table 2: Hispanic or Latino	Population in the Pioneer	Valley Region 2000-2015
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	Hispan	ersons	% of Total Population			
	2000	2015	% Change	2000	2015	% Change
Pioneer Valley						
Region	74,409	121,630	63.5%	12.2%	19.2%	7.0%
Hampden County	69,197	112,859	63.1%	15.2%	24.0%	8.8%
Hampshire County	5,212	8,771	68.3%	3.4%	5.4%	2.0%
Massachusetts	428729	757,948	76.8%	6.8%	11.2%	4.4%
United States	35,305,818	56,496,122	60.0%	12.5%	18%	5.0%

Sources: U. S. Census Bureau, 2000 Decennial Census and 2015 ACS 1-Year Estimates

Table 3: Population by Race 2015

	White	African American	Native American	Asian	Pacific Islander	Other Races
Pioneer Valley Region	81.3%	7.0%	0.3%	2.8%	0.0%	8.6%
Hampden County	78.4%	8.6%	0.3%	2.2%	0.0%	10.5%
Hampshire County	89.8%	2.6%	0.1%	4.4%	0.2%	2.9%
Massachusetts	80.1%	7.1%	0.2%	5.7%	0.0%	6.8%
United States	73.9%	12.6%	0.8%	5.0%	0.2%	7.5%

Source: U.S. Census Bureau, 2015 1-Year County Population Estimates.

Percentages add up to more than 100% because of ability to report more than one racial category. Because the U.S. Census Bureau considers Hispanic/Latino an ethnic category rather than a race category, all race categories include some people who are Hispanic or Latino and some who are not.

While the population in Springfield remained stable in the past decade, there has been more steady growth in other urban communities. Specifically, Agawam, Chicopee, Holyoke, Westfield, and West Springfield, all grew between 1.7% and 3% between 2005 and 2015. The suburban and rural communities experienced steady growth, as well. Figure 1 depicts the pattern of population growth and decline between 2005 and 2015. Although there has been steady growth in urbanized cities, the areas of greatest proportional growth are generally outside the most urbanized, and even suburban, parts of the region. Rural communities, such as Montgomery, Goshen, Tolland, Belchertown, and Brimfield experienced significant population growth in that time period.

Throughout the early 2000s, the northern urban areas of Northampton and Amherst climbed back to well beyond their 1990 levels. Although Amherst continued this trend, with a population increase of 9.6% between 2005 and 2015, the population of Northampton remained stable. The general pattern of large proportional increases happening in smaller towns also occurred in communities around these northern urban areas, with Hadley growing by 6.2 percent.

In a fifteen year time frame (2000-2015), the region's Hispanic and Latino population grew by 63.5%, a rate of growth that was significant, though slightly lower than that of both the state and nation (see Table 2). While the rate of growth in the Hispanic and Latino population has been slightly slower than that of the state, at approximately 19% of the total population, the Hispanic and Latino population is actually slightly higher than that of the nation. In this sense, the Pioneer Valley region looks less like the rest of the state as a whole and more like nation-wide demographics. Conversely, the proportion of the Pioneer Valley region population identifying exclusively as White (83.1%) is closer to that of the state (79.1%) than to the nation (73.1 percent). (See Table 3.)

While the proportion of people who identify as White in the Pioneer Valley region is now slightly higher than that of Massachusetts as a whole, the breakdown of people who identified as races other than White were varied somewhat. The Pioneer Valley region was nearly identical to the state in the proportion of people who identify as African Americans, Native Americans, or Pacific Islander,3.3% lower in the proportion of people who identify as an Asian race and 1.8% higher in the proportion of people who consider themselves a race other than the main five classifications recognized by the U.S. Census Bureau. Conversely, in 2015, those who identify as Asian accounted for 6.3% of the state's population, but they made up only 3% of the population of the Pioneer Valley region.

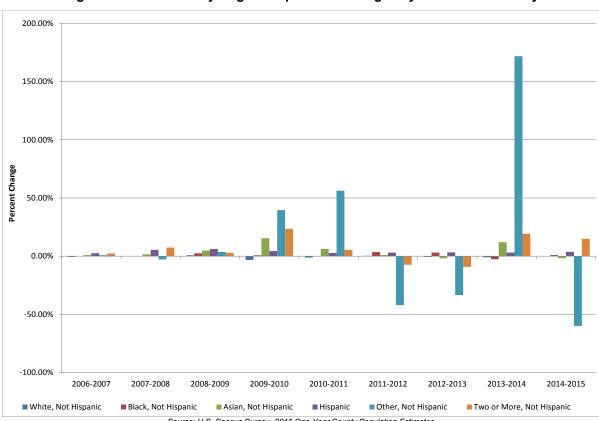


Figure 2: Pioneer Valley Region Population Changes by Race and Ethnicity

Source: U.S. Census Bureau, 2015 One-Year County Population Estimates.

Note: In 2010, an additional Race category of "Some other race, not otherwise specified" was included in the category
of "Other, Not Hispanic" which contributed to the significant increase in that category.

The age distribution of the population within the Pioneer Valley region mirrors the aging population trends across the nation, and hints at some explanations for the type of slow population growth that has occurred over recent decades. Between 2000-2015, the region has seen increases in people between the ages of 20-24, 25-44, 65-84, and 85+. This suggests a smaller population in its prime wage-earning years, yet a larger portion of the population in or approaching years of dependence on others. While many in the 45-64 year old age category are still fully in their careers, it will be important to note this proportion of the population (13%) who are likely to move out of the labor force and into retirement within the next decade.

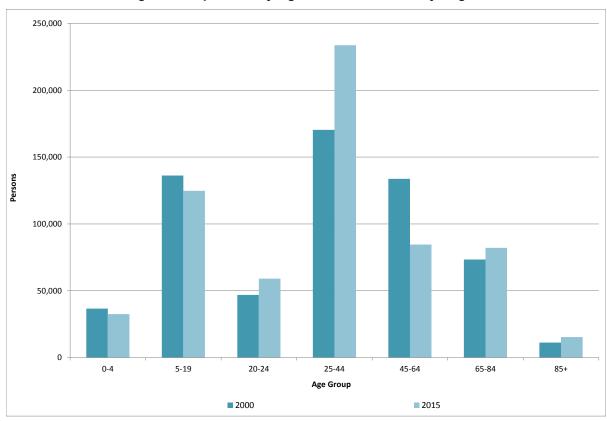


Figure 3: Population by Age in the Pioneer Valley Region

Source: U.S. Census Bureau American Community Survey, 2015 1-Year-Estimates

Demographics and Migration

Retaining the population base has been a challenge in the Pioneer Valley region. Although trends of out-migration decreased between 1996 and 2005, it appears that this trend is reversing. Between 2006 and 2015, the region experienced a total net-out migration of 28,307 people, compared to 18,873 people between 1996 and 2005. During the recession of the 2000s when the housing market crashed, net out-migration decreased significantly, reflecting similar trends to those in previous economic downturns. However, net-out migration has been increasing steadily since then. In 2011, net out-migration was over seven times higher than in 2010. Although this trend slowed slightly between 2012 and 2013, net out-migration is again on the rise.

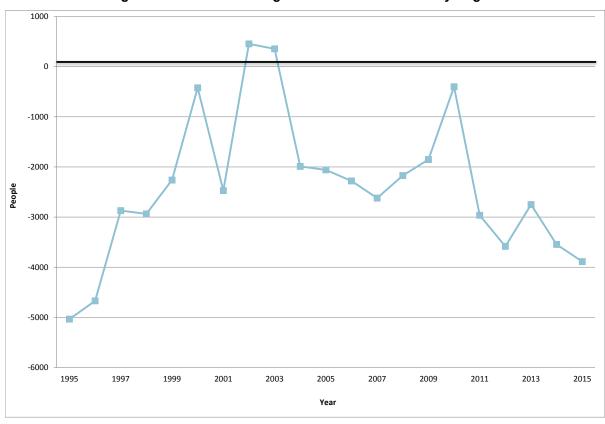


Figure 4: Net Domestic Migration in the Pioneer Valley Region

Source: U. S. Census Bureau Population Division, 2015

The Pioneer Valley has always been a destination for foreign immigrants and this continues to be the case. From 2000 to 2009 inclusive, a total of 14,395 new immigrants settled in the Pioneer Valley region. In fact, if not for foreign born immigration, the Pioneer Valley region would have experienced a net loss of population between 1990 and 2000. This trend of foreign immigration has continued between 2010 and 2015, which has seen an additional 9,700 people immigrating to the region from another country.

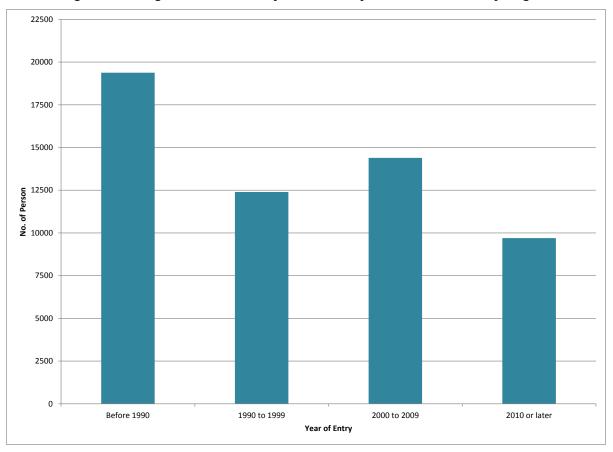


Figure 5: Foreign Born Persons by Year of Entry in the Pioneer Valley Region

Source: U.S. Census Bureau, American Community Survey, 2015 One -Year Estimates

A commonly cited concern about the region's high level of international immigration is whether there are adequate services for new arrivals who often enter the country with few resources. However; the Valley, with its history of immigration dating back to the industrial mills of the nineteenth century, has historically demonstrated the capacity to readily absorb new immigrants into the economy. For instance, in 2012 the poverty rate of the foreign born population was only 0.7% higher than the total population in the Pioneer Valley region. However, in 2015, this gap increased, as the poverty rate of the foreign born population was 2.5% higher than the total Pioneer Valley population. This figure is more closely aligned, although still somewhat lower, than state and national trends, which show the foreign born population with an observably higher poverty rate than the general population (by 3.1% in Massachusetts and 2.6% nationally in 2015).

Despite this increasing gap, data from 2015 show that once immigrants have become naturalized citizens, they have a poverty rate in the Pioneer Valley region that is 7% below that of the population as a whole (see Figure 6). Immigration has been, and will continue to be important to the growth of the region's population and economy.

35.0%

25.0%

20.0%

15.0%

10.0%

Pioneer Valley

Massachusetts

United States

Poverty Rate of Population

Poverty Rate of Foreign Born

Poverty Rate of Foreign Born Non-Citizens

Figure 6: 2015 Poverty Rates for all Persons and Foreign Born Persons By Citizenship Status

Source: U.S. Census Bureau, 2015 American Community Survey 1-Year Estimates

Income and Poverty

To measure economic growth, we examine several indicators including per capita income, median family income, and poverty rates. According to these measures, the Pioneer Valley region experienced economic improvement consistent with national rates during the 1990s, and, while growth was slower than the nation for the first part of the 2000s, the region's economy seems to have been affected less negatively than that of the state and nation.

Per capita income is a useful measure of economic growth because it controls for population change by measuring total income as it relates to population size. Inflation is controlled by converting the annual values to current year dollars using the Consumer Price Index for the Northeast. As can be seen in Figure 7, the region's per capita income is significantly less than the per capita income for the Commonwealth and slightly below that of the nation. Much of the economic growth is the result of economic changes in the 1990s. In 1980, the difference between incomes in the Pioneer Valley and state, adjusting for inflation, was \$3,488 but in 2015 it was \$16,110. This difference exists despite significant regional growth, as evidenced by the 24.3% growth of per capita income between 1990 and 2015. However, in a comparable time period, Massachusetts incomes grew much faster (21.7 percent). Since 2000, this trend has shifted and growth rates in the Pioneer Valley region have surpassed those of the state and nation: The region's per capita income gains have equaled 15.7% while statewide gains have been a more moderate 13.3%.

According to 2011 - 2015 5-year estimates from the U.S. Census Bureau, "real" per capita income rose between 2000 and 2015 in 17 Pioneer Valley region communities (see Table 4). Chesterfield, Southwick, and Middlefield all experienced increases exceeding 14%. In contrast, Amherst, Cummington, Springfield, Tolland, and Wales experienced double-digit decreases in per capita income.

\$70,000 \$65,000 \$60,000 \$55,000 \$50,000 \$45,000 \$40,000 Income \$35,000 \$30,000 \$25,000 \$20,000 \$15,000 \$10,000 \$5,000 \$0 2015 1995 1997 1999 2001 2003 2005 2007 2009 2013 2011 → United States Pioneer Valley region Massachusetts

Figure 7: Per Capita Income (Adjusted to 2015 \$)

Source: U.S. Bureau of Economic Analysis, Regional Economic Information System, 1995-2015

Table 4: Changes in Per Capita Income

	Per Capita Income (2015\$)					
	2000 Count	2011-2015 Estimate	% Change			
Massachusetts	37,722	36,895	-2.24			
Pioneer Valley Region	29,182	27,500	-6.12			
Hampden County	28,403	26,560	-6.94			
Hampshire County	31,519	30,244	-4.22			
	·					
Agawam	32,794	30,699	-6.83			
Amherst	25,330	18,905	-33.99			
Belchertown	31,887	34,278	6.97			
Blandford	35,299	33,264	-6.12			
Brimfield	34,464	38,412	10.28			
Chester	26,306	27,553	4.53			
Chesterfield	27,937	33,750	17.22			
Chicopee	27,102	25,352	-6.90			
Cummington	31,328	27,323	-14.66			
East Longmeadow	40,203	38,300	-4.97			
Easthampton	31,864	33,320	4.37			
Goshen	32,299	32,618	0.98			
Granby	33,735	37,935	11.07			
Granville	32,435	29,928	-8.38			
Hadley	36,258	39,502	8.21			
Hampden	38,794	39,184	0.99			
Hatfield	36,066	36,000	-0.18			
Holland	31,643	34,188	7.44			
Holyoke	23,130	22,343	-3.52			
Huntington	28,176	27,588	-2.13			
Longmeadow	56,613	53,809	-5.21			
Ludlow	29,223	31,586	7.48			
Middlefield	35,084	40,904	14.23			
Monson	32,732	32,780	0.15			
Montgomery	37,707	35,783	-5.38			
Northampton	34,916	35,102	0.53			
Palmer	27,128	26,741	-1.45			
Pelham	43,345	46,449	6.68			
Plainfield	30,211	29,766	-1.50			
Russell	30,986	30,231	-2.50			
South Hadley	33,041	31,147	-6.08			
Southampton	38,089	37,005	-2.93			
Southwick	31,623	37,134	14.84			
Springfield	22,140	18,553	-19.33			
Tolland	43,789	37,685	-16.20			
Wales	30,912	24,594	-25.69			
Ware	27,483	26,687	-2.98			
West Springfield	30,498	27,988	-8.97			
Westfield	29,942	28,322	-5.72			
Westhampton	36,861	36,236	-1.73			
Wilbraham	43,393	39,898	-8.76			
Williamsburg	37,520	38,597	2.79			
Worthington	35,161	33,830	-3.93			

Source: U.S. Census Bureau 2000 Decennial Census and 2011-15 American Community Survey Estimates

Table 5: Changes in Median Family Income in the Pioneer Valley Region - 2000 to 2015

	Median Family Income (2015\$)					
	2000 Count	2011-2015 Estimate	% Change			
Magazahusatta	407 F62	¢07.005	0.550/			
Massachusetts	\$87,563	\$87,085	-0.55%			
Hampden County	\$72,747	\$67,186	-7.64%			
Hampshire County	\$69,945	\$62,350	-10.86%			
Pioneer Valley Region	\$81,622	\$83,530	2.34%			
Agawam	\$83,905	\$82,588	-1.57%			
Amherst	\$86,957	\$96,005	10.41%			
Belchertown	\$86,379	\$90,561	4.84%			
Blandford	\$84,313	\$80,724	-4.26%			
Brimfield	\$85,119	\$105,500	23.94%			
Chester	\$73,743	\$72,292	-1.97%			
Chesterfield	\$81,453	\$74,750	-8.23%			
Chicopee	\$62,673	\$59,218	-5.51%			
Cummington	\$69,225	\$61,563	-11.07%			
East Longmeadow	\$100,211	\$100,515	0.30%			
Easthampton	\$77,123	\$69,323	-10.11%			
Goshen	\$83,425	\$77,262	-7.39%			
Granby	\$81,837	\$93,603	14.38%			
Granville	\$84,091	\$83,224	-1.03%			
Hadley	\$87,894	\$91,429	4.02%			
Hampden	\$107,078	\$89,936	-16.01%			
Hatfield	\$87,482	\$78,482	-10.29%			
Holland	\$80,974	\$85,952	6.15%			
Holyoke	\$51,305	\$41,194	-19.71%			
Huntington	\$74,277	\$75,673	1.88%			
Longmeadow	\$124,594	\$131,086	5.21%			
Ludlow	\$79,118	\$73,930	-6.56%			
Middlefield	\$76,522	\$90,000	17.61%			
Monson	\$83,222	\$84,336	1.34%			
Montgomery	\$94,075	\$92,500	-1.67%			
Northampton	\$80,718	\$87,035	7.83%			
Palmer	\$70,088	\$61,755	-11.89%			
Pelham	\$101,767	\$99,286	-2.44%			
Plainfield	\$65,380	\$62,500	-4.40%			
Russell	\$69,070	\$75,781	9.72%			
South Hadley	\$83,344	\$82,891	-0.54%			
Southampton	\$92,243	\$91,528	-0.78%			
Southwick	\$91,528	\$91,688	0.18%			
Springfield	\$51,525	\$38,847	-24.61%			
Tolland	\$92,892	\$94,063	1.26%			
Wales	\$73,313	\$60,966	-16.84%			
Ware	\$64,617	\$67,474	4.42%			
West Springfield	\$71,400	\$68,272	-4.38%			
Westfield	\$78,564	\$77,163	-1.78%			
Westhampton	\$94,608	\$89,375	-5.53%			
Wilbraham	\$104,832	\$110,324	5.24%			
Williamsburg	\$79,283	\$86,424	9.01%			
Worthington	\$85,387	\$82,986	-2.81%			

Source: U.S. Census Bureau 2000 Decennial census and American Community Survey 2011-2015 5-Year Estimates

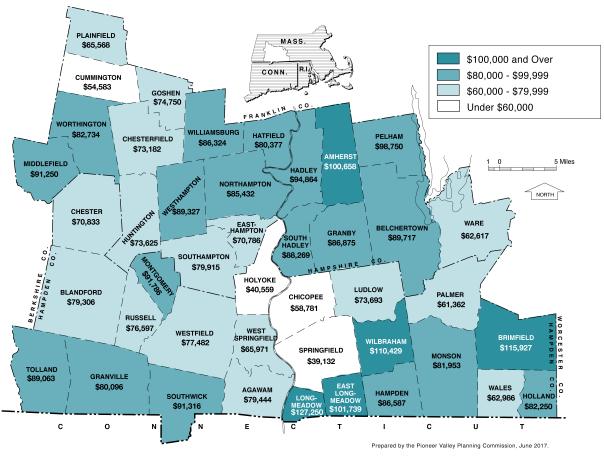


Figure 8: Median Family Income (2015)

Source: U.S.Census Bureau, American Community Survey 5-year Estimates, 2011-2015

According to the U.S. Census Bureau, median family incomes in the Pioneer Valley region increased by just over 2% between 2000 and the five year period between 2011-2015 (see Table 5). Within the region there are significant income disparities (see Figure 8). For example, while Longmeadow, East Longmeadow, Wilbraham, and Brimfield have median family incomes greater than \$100,000, Springfield and Holyoke median family incomes are less than \$42,000.

What's more, the lowest family incomes have continued to decline, particularly in Springfield and Holyoke (24.6% and 19.7% respectively). This trend is not exclusive to large cities, as one of the region's smallest towns, Chesterfield, experienced an 8.2% drop. Palmer, Goshen, Hampden, Hatfield, and West Springfield also experienced significant proportional declines.

At the same time, several communities have experienced more positive trends. Amherst and Brimfield, for example, experienced large increases to their median family incomes (by 10.4% and 23.9% respectively). In 1999 median family incomes in both towns were approximately \$85,000 (adjusted for inflation to 2012 dollars). Twelve years later, both median incomes are both well over \$95,000, with Amherst at \$96,005 and Brimfield at \$105,500.

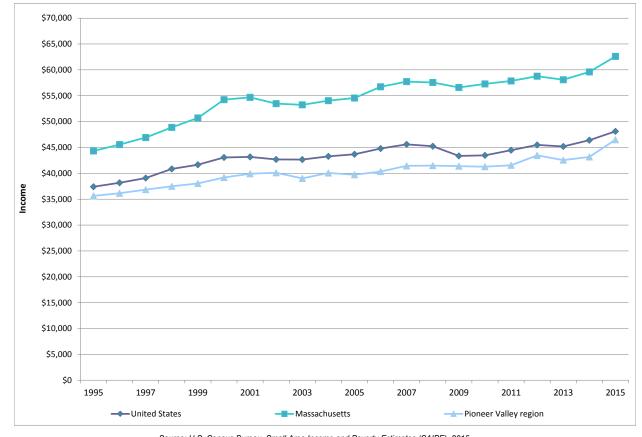


Figure 9: Poverty Rate in the Pioneer Valley Region, 2005-2015

Source: U.S. Census Bureau, Small Area Income and Poverty Estimates (SAIPE), 2015

Note: Poverty rates displayed in this figure may differ slightly from Table 6 and Figure 11 as different data sources were required

The poverty rate is another measure used to determine quality of life and economic well-being. In the Pioneer Valley region, poverty rates amongst the general population climbed from 15.2% in 2005 to 16.7% in 2012, but have since declined slightly to 15.8% in 2015 (as seen in Figure 9). Between 2005 and 2010, poverty rates hovered consistently around 15 percent, dropping slightly in 2008 but then increasing in 2009 to 15.8 and again in 2012 to 16.7 percent, a rate higher than has existed for over a decade. This rate continues to follow a decade-long pattern of exceeding Massachusetts' overall rate by several percentage points. In 2012, this difference was 5.9 percent. The poverty rate trends, and the per capita income growth patterns previously mentioned, suggest that the region did not share equally in the state's economic growth at the end of the 1990s, nor in the middle portion of the 2000s. While in 2010, for the first time in over a decade, the total poverty rate in the Pioneer Valley region was lower than that of the nation as a whole; the current 2015 rate is about 1% above the national rate.

In the ten year period from 2005 to 2015, child poverty rates in the region have been consistently higher than those for the United States and drastically so in relation to Massachusetts overall, as seen in Figure 10. Child poverty rates in the Pioneer Valley region rose from 22.4% in 2005 to a 23.5% in 2015. Since 2005, child poverty rates in the Pioneer Valley region as a whole have exceeded 20% annually. This indicates that more than one in five children in the Pioneer Valley region has grown up in households with incomes below the poverty line.

According to the U. S. Census Bureau American Community Survey 2011-2015 5-Year Estimates, disparities in the distribution of poverty amongst the municipalities of the region are substantial. The major urban centers of Springfield and Holyoke continue to have the highest poverty rates in the region, well above 20% in all categories (as seen in Table 6). Most alarmingly, the rate of children living in poverty is 43.9% in Springfield and 45.9% in Holyoke.

There has been a significant increase in the number of individuals living in poverty in the Town of Amherst. Second only to Holyoke, the Town of Amherst has surpassed Springfield in the number of individuals living in poverty. The large student population in Amherst is likely a major contributor to the high poverty rate in town, a theory supported by the fact that family and child poverty rates remain much lower than the individual rates. Still, this doesn't explain why there was such a large increase in the poverty rate in recent years. Springfield, Holyoke, Cummington, Hatfield, Huntington, Northampton, Plainfield, Pelham, Chester, Agawam, Amherst, Ware, and Chicopee all experienced significantly increasing percentages of children in poverty. Among those communities close to the urban centers, Westfield and West Springfield have also managed to keep relatively stable family and individual poverty rates but experienced a significant jump in child poverty (8.8% and 5% respectively).

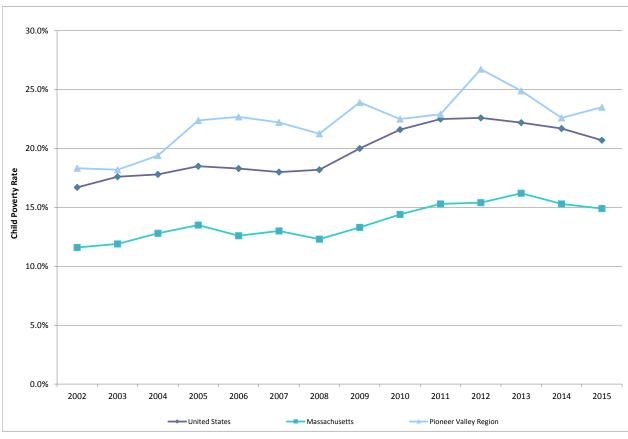


Figure 10: Child Poverty Rate in the Pioneer Valley Region, 2005-2015

Source: U.S. Census Bureau, Small Area Income and Poverty Estimates (SAIPE), 2015

Note: Poverty rates displayed in this figure may differ slightly from Table 6 and Figure 11 as different data sources were required.

Table 6: Changes in Community Poverty Rates 2000 to 2015

	1			1				
	Families	in Poverty	Children i	Children in Poverty		Individuals in Poverty		
	2000	2015	2000	2015	2000	2015		
Massachusetts	6.70%	8.20%	6.70%	15.20%	9.30%	11.60%		
Pioneer Valley	0.7070	0.2070	0.7 0 70	10.2070	0.0070	11.0070		
Region	10.01%	12.06%	10.01%	24.48%	13.41%	16.77%		
Hampden County	11.45%	13.80%	11.45%	27.20%	14.74%	17.50%		
Hampshire County	5.05%	6.20%	5.05%	12.90%	9.40%	14.70%		
Agawam	4.26%	5.80%	4.26%	9.70%	5.63%	8.50%		
Amherst	7.23%	8.70%	7.23%	18.20%	20.21%	34.70%		
Belchertown	5.11%	5.90%	5.11%	7.80%	5.90%	9.20%		
Blandford	1.72%	3.40%	1.72%	6.50%	3.39%	3.90%		
Brimfield	2.15%	2.90%	2.15%	0.00%	4.38%	3.20%		
Chester	2.87%	4.80%	2.87%	12.00%	5.85%	8.30%		
Chesterfield	3.38%	4.00%	3.38%	6.60%	5.69%	8.30%		
Chicopee	9.59%	10.20%	9.59%	18.80%	12.25%	13.30%		
Cummington	4.18%	3.90%	4.18%	6.40%	6.64%	6.40%		
East Longmeadow	2.09%	4.30%	2.09%	9.80%	3.44%	5.60%		
Easthampton	5.89%	4.50%	5.89%	6.60%	8.88%	9.20%		
Goshen	4.27%	0.00%	4.27%	0.00%	7.87%	3.00%		
Granby	0.95%	1.20%	0.95%	5.30%	2.21%	4.50%		
Granville	1.77%	7.40%	1.77%	13.70%	3.38%	10.30%		
Hadley	4.76%	2.90%	4.76%	8.90%	6.89%	6.80%		
Hampden	1.36%	3.40%	1.36%	7.40%	2.21%	5.20%		
Hatfield	1.37%	3.00%	1.37%	4.40%	2.77%	7.30%		
Holland	6.51%	3.20%	6.51%	3.90%	7.29%	7.40%		
Holyoke	22.56%	25.90%	22.56%	45.90%	26.38%	28.80%		
Huntington	4.37%	6.00%	4.37%	18.40%	5.78%	10.60%		
Longmeadow	0.97%	3.20%	0.97%	6.70%	2.05%	4.40%		
Ludlow	5.27%	2.70%	5.27%	6.20%	6.35%	4.90%		
Middlefield	7.32%	4.70%	7.32%	5.10%	8.62%	5.90%		
Monson	5.25%	4.20%	5.25%	6.10%	5.58%	8.70%		
Montgomery	1.01%	1.60%	1.01%	4.30%	2.94%	2.20%		
Northampton	5.72%	10.00%	5.72%	21.20%	9.82%	17.10%		
Palmer	5.76%	9.30%	5.76%	13.20%	7.88%	11.70%		
Pelham	2.65%	2.70%	2.65%	5.20%	4.87%	6.00%		
Plainfield	4.85%	7.80%	4.85%	17.90%	7.99%	9.50%		
Russell	7.10%	0.70%	7.10%	1.60%	9.05%	2.10%		
South Hadley	4.12%	3.80%	4.12%	11.10%	5.88%	9.80%		
Southampton	1.82%	4.40%	1.82%	3.80%	2.36%	5.40%		
Southwick	3.80%	4.60%	3.80%	8.60%	6.10%	5.40%		
Springfield	19.32%	25.80%	19.32%	43.90%	23.08%	30.00%		
Tolland	2.31%	3.50%	2.31%	0.00%	4.23%	8.90%		
Wales	1.85%	4.10%	1.85%	5.50%	3.49%	6.40%		
Wast Caringfield	8.43%	10.80%	8.43%	23.20%	11.22%	15.00%		
West Springfield	8.66%	7.60%	8.66%	13.70%	11.94%	10.90%		
Westfield	6.85%	5.80%	6.85%	15.70%	11.28%	9.50%		
Westhampton	1.94%	0.60%	1.94%	0.90%	3.54%	2.40%		
Williamsburg	3.15% 1.22%	1.20%	3.15%	3.20%	5.13% 5.48%	4.10%		
Worthington		6.70%	1.22%	16.50%		9.50%		
Worthington	1.50%	1.50%	1.50%	9.20%	3.46%	6.00%		

Source: U.S. Bureau of the Census 2000, American Community Survey 20011-15 5-Year Estimates

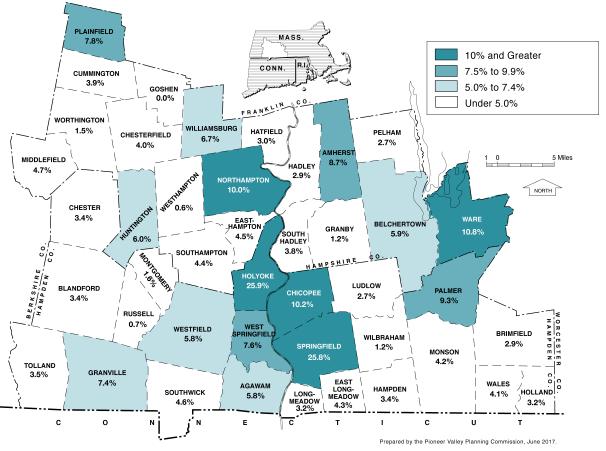


Figure 11: Families in Poverty (2015)

Source: American Community Survey 2011-15 5-Year Estimates

Education

The 43 communities in the Pioneer Valley region are served by 39 municipal and regional school districts and 11 charter school districts, ten of these districts only serve students from kindergarten through sixth grade (one is actually K-5). The four largest school districts are Springfield, Chicopee, Westfield, and Holyoke, which together, account for slightly less than half of all the pupils in the region (see Table 7). In all of these districts, as well as many others across the region, school enrollments continued to fall or remain stable.

In the Pioneer Valley, enrollment remained stagnant, falling 0.94% between the 2014-2015 and 2015-2016 school years. During that time period, enrollment declined in 31 of the region's 50 districts between the 2015-2016 school year. Enrollment dropped substantially in several areas, including , , Gateway (8.6%), Granby (-7%), Westhampton (-6%), Holland (-6%), Monson (-4.8%), and Amherst-Pelham (5%) . In contrast, six districts had increased enrollments above 1 percent. These districts wereChesterfield-Goshen (1.3%), Pelham (4%), Wales (1.2%), Ware (2.3%) and Williamsburg (4.4%) and Northampton-Smith Vocational Agricultural (9%) . Seven of the charter schools in the region increased enrollment over this same time period by between 10-40%. It is worth noting that these rural communities with declining enrollments are places where the population numbers as a whole remain fairly stable or are increasing (see Table 1). For example, the population growth in Monson and Granby, was less than 1%, but enrollment declined 4.8% and 7%, respectively. In Goshen, Chesterfield and Hadley, the population grew by varying amounts with Goshen increasing the most by 12.1 % and Chesterfield increasing by 0.5% while enrollments for the school district declined overall by 7.7%.

Only 10 of the 39 districts have average per-pupil expenditures greater than or equal to the state's 2014-2015 average per-pupil expenditure of \$14,936. The Northampton-Smith Vocational Agricultural district had the highest per-pupil expenditure (\$24,279) out of all the region's districts serving students in grades K-12. On the other end of the spectrum, Southampton's Pre-K to 6th grade had the lowest average per-pupil expenditure at \$10,745.

In today's economy, a high school education is the minimum requirement to participate effectively in the job market. While the region's average high school dropout rate continues to decrease, it remains a full 1% higher than the state's (see Table 8). However, in the community with the highest dropout rate (Holyoke) per-pupil spending is above the statewide average, a factor that may help pull the dropout rates down over time.

Table 7: Pioneer Valley Region School Districts Profile

Student Enrollment Average Per Average Pupil Teacher Cities & Towns in the Change **Expenditures** Salary '15 **–** '16 2014-2015 **Public School District Name Pioneer Valley Region** '14 - '15 **15 - 16** 2014-2015 95,806 -0.94% Pioneer Valley Region 96,711 N/A N/A Agawam Agawam 4.091 3.939 -3.72% \$14.363 \$64.769 Amherst (PK-6) Amherst 1,200 1,182 -1.50% \$20,237 \$71,730 Amherst-Pelham (7-12) * -4.51% Amherst, Pelham 1.441 1.376 \$19.979 \$80.003 \$13,763 \$51,881 38.99% **Baystate Charter** (Springfield) 218 303 -0.47% Belchertown 2.364 2.353 \$12,592 \$63,183 Belchertown Brimfield Brimfield (K-6) 291 288 -1.03% \$63,328 \$15,329 Central Berkshire * Cumminaton-only 1.723 1.625 -5.69% \$15.105 \$69.081 Chesterfield-Goshen (PK-6) Chesterfield, Goshen 153 155 1.31% \$14,061 \$61,142 Chicopee 7,841 7,710 -1.67% \$13,660 \$65,358 Chicopee -1.23% East Longmeadow East Longmeadow 2.683 2.650 \$13,555 \$73,819 Easthampton Easthampton 1,525 -0.85% \$70,494 1,538 \$12,916 Blandford, Gateway Chester, Huntington, Middlefield. Montgomery, Russell, Worthington 956 874 -8.58% \$15,338 \$57,985 Granby Granby 882 819 -7.14% \$11,933 \$57,229 Hadley 620 606 -2.26% Hadley \$12,553 \$60.970 \$56,819 Hampden Charter School of Science (Chicopee) 361 435 20.50% \$12,487 Hampden-Wilbraham Hampden, Wilbraham 3,239 3,138 -3.12% \$13,830 \$71,211 Hampshire Chesterfield, Goshen, Southampton, Westhampton, 0.54% Williamsburg 747 751 \$16.174 \$71.416 Hatfield Hatfield 461 447 -3.04% \$13,522 \$58,030 \$58,655 Hilltown Cooperative Charter (Easthampton) 193 211 9.33% \$12,458 Holland (PK-6) Holland 237 223 -5.91% \$13,414 \$61,098 -3.71% Holyoke Holyoke 5,573 5,366 \$15,742 \$67,517 Holyoke Community Charter 704 704 (Holyoke) 0.00% \$13,414 \$51,681 -0.76% Longmeadow Longmeadow 2,902 2,880 \$14,385 \$69,770 Ludlow Ludlow 2.716 2.699 -0.63% \$14,297 \$59.724 \$51,108 Martin Luther King Jr Charter -0.27% (Springfield) 367 366 \$14,872 Mohawk Trail * Plainfield-only \$74,302 964 1,005 4.25% \$17,492 Monson Monson 1,094 1,042 -4.75% \$13,955 \$60,397 -1.63% Northampton Northampton 2,701 2,657 \$14,057 \$58,980 Northampton-Smith Vocational & Agricultural Hampshire County 430 468 8.84% \$24,279 \$60,728 -0.07% Palmer Palmer 1,430 1,429 \$14,120 \$67,521 Granby, Palmer, Pathfinder Regional Vocational Technical ** Monson, Ware 621 620 -0.16% \$22,343 \$68,920 Paulo Freire Social Justice Charter \$13,155 \$34,267 243 314 29.22% (Holyoke)

		Student Enrollment				
Public School District Name	Cities & Towns in the Pioneer Valley Region	'14 – '15	'15 – '16	% Change '15 – '16	Average Per Pupil Expenditures 2014-2015	Average Teacher Salary 2014–2015
Pelham (K-6)	Pelham	120	125	4.17%	\$17,297	\$70,952
Phoenix Academy Public Charter High School Springfield (District)	(Springfield)	122	170	39.34%	\$13,720	\$56,897
Pioneer Valley Chinese Immersion Charter (District)	(Hadley)	389	439	12.85%	\$11,061	\$46,212
Pioneer Valley Performing Arts Charter Public (District)	(South Hadley)	405	403	-0.49%	\$13,632	\$54,753
Sabis International Charter	(Springfield)	1,573	1,573	0.00%	\$11,755	\$74,835
South Hadley	South Hadley	1,868	1,843	-1.34%	\$14,078	\$69,927
Southampton (PK-6)	Southampton	541	527	-2.59%	\$10,745	\$70,916
Southwick-Tolland-Granville Regional School District	Southwick, Tolland, Granville	1,636	1,625	-0.67%	\$13,377	\$62,747
Springfield	Springfield	25,645	25,479	-0.65%	\$14,965	\$65,293
Tantasqua (7-13) *	Brimfield, Holland, Wales	1,795	1,798	0.17%	\$13,036	\$73,069
Tantasqua (7-13) *	Brimfield, Holland, Wales	1,795	1,798	0.17%	\$13,036	\$73,069
Veritas prep Charter	(Springfield)	246	307	24.80%	\$14,726	\$57,056
Wales (PK-6)	Wales	166	168	1.20%	\$12,702	\$64,373
Ware	Ware	1,241	1,269	2.26%	\$13,208	\$61,266
West Springfield	West Springfield	3,977	3,994	0.43%	\$13,372	\$67,340
Westfield	Westfield	5,696	5,572	-2.18%	\$13,623	\$67,184
Westhampton (PK-6)	Westhampton	149	140	-6.04%	\$14,509	\$62,763
Williamsburg (PK-6)	Williamsburg	158	165	4.43%	\$14,132	\$65,326
Worthington	Worthington		49			

Source: Massachusetts Department of Education, School District Profiles, 2016
*Enrollment data for regional school district includes all students who attend schools within the Pioneer Valley Region.
This includes some students who reside outside the Pioneer Valley Region.

^{**}Enrollment data for vocational school district includes students who attend vocational schools within the Pioneer Valley Region.

This includes some students who reside outside the Pioneer Valley Region.

Table 8: Annual High School Dropout Rate in the Pioneer Valley region - 2006 - 2015

School District	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Managhuatta	0.00/	0.00/	0.40/	0.00/	0.00/	0.00/	0.50/	0.00/	20/	4.00/
Massachusetts	3.3%	3.8%	3.4%	2.9%	2.9%	2.8%	2.5%	2.2%	2%	1.9%
Pioneer Valley Region	4.4%	5.4%	5.1%	4.0%	4.6%	5.0%	4.0%	3.2%	3.1%	2.8%
Agawam	2.1%	4.4%	1.4%	2.2%	1.1%	1.9%	1.3%	1.8%	1.6%	0.9%
Amherst-Pelham	1.5%	2.5%	2.1%	0.8%	1.5%	2.1%	1.6%	1.0%	0.7%	1.0%
Belchertown	1.6%	1.6%	1.0%	1.4%	1.7%	1.1%	0.9%	0.3%	0.9%	0.7%
Central Berkshire	2.3%	1.6%	1.5%	1.4%	2.2%	1.7%	1.7%	1.3%	1.8%	1.5%
Chicopee	6.0%	6.0%	6.2%	5.7%	5.5%	5.4%	4.3%	4.3%	4.0%	3.9%
East Longmeadow	0.5%	1.5%	0.9%	0.6%	0.7%	0.4%	0.6%	0.3%	0.5%	0.8%
Easthampton	1.7%	2.1%	2.7%	2.0%	2.9%	2.9%	1.6%	1.3%	0.9%	1.8%
Gateway	4.3%	4.3%	5.1%	2.4%	2.9%	2.4%	3.9%	2.0%	2.2%	2.4%
Granby	0.0%	0.9%	1.1%	2.0%	1.1%	0.8%	0.0%	0.3%	0.0%	0.3%
Hadley	1.3%	0.6%	0.6%	1.0%	1.0%	1.0%	1.1%	0.0%	0.6%	1.7%
Hampden Charter School of Science									0.6%	0.0%
Hampden-Wilbraham	0.7%	1.2%	1.2%	0.7%	0.8%	0.6%	0.8%	0.6%	0.4%	0.8%
Hampshire	2.9%	2.9%	1.5%	1.9%	2.4%	1.0%	2.0%	1.0%	0.4%	0.0%
Hatfield	0.0%	0.0%	2.3%	2.5%	4.5%	1.6%	0.0%	0.0%	0.0%	0.0%
Holyoke	11.7%	11.3%	11.6%	9.8%	9.5%	9.8%	7.7%	9.1%	6.4%	7.6%
Longmeadow	0.5%	0.1%	0.0%	0.5%	0.7%	0.5%	0.2%	0.0%	0.0%	0.2%
Ludlow	1.6%	1.7%	1.9%	0.9%	1.5%	0.8%	1.9%	2.0%	0.9%	0.8%
Mohawk Trail	2.4%	6.2%	5.0%	4.6%	3.6%	2.0%	2.4%	2.7%	2.3%	2.7%
Monson	1.2%	4.2%	0.5%	3.3%	2.7%	1.4%	1.2%	2.8%	2.9%	1.5%
Northampton	2.1%	1.9%	2.1%	1.2%	1.6%	0.9%	1.5%	1.1%	0.9%	0.7%
Northampton-Smith	3.3%	4.1%	1.8%	2.4%	1.3%	1.4%	1.4%	1.2%	0.5%	0.5%
Palmer	0.4%	4.1%	6.6%	3.6%	4.9%	7.1%	2.7%	2.2%	3.4%	3.6%
Pathfinder Voc Tech	3.0%	1.5%	3.1%	2.8%	2.6%	1.9%	1.4%	2.1%	1.1%	0.8%
Paulo Freire SJ Charter									0.0%	0.4%
Phoenix Academy										41.0%
Pioneer Valley Chinese Immersion Charter(District)									0.0%	0.0%
Pioneer Valley Perf Arts	2.5%	4.5%	4.0%	1.3%	5.1%	2.6%	1.5%	0.7%	1.5%	2.2%
Sabis International	0.3%	1.5%	1.2%	0.2%	0.2%	0.6%	0.4%	0.2%	0.4%	0.4%
South Hadley	1.9%	3.3%	2.9%	2.0%	2.8%	2.0%	0.8%	1.0%	1.7%	1.1%
Southwick-Tolland	1.9%	2.6%	1.8%	4.5%	0.7%	1.6%	1.7%	2.0%	1.7%	1.7%
Springfield	8.3%	10.9%	9.7%	9.6%	10.5%	11.7%	10.0%	6.5%	7.2%	5.1%
Tantasqua	1.7%	1.2%	0.7%	1.9%	1.2%	1.5%	1.4%	0.4%	0.9%	0.7%
Ware	6.3%	7.3%	10.2%	3.6%	4.2%	5.4%	3.8%	4.3%	5.5%	5.4%
West Springfield	4.4%	6.3%	6.0%	5.4%	3.4%	5.1%	3.1%	2.1%	2.3%	2.3%
Westfield	4.6%	5.3%	3.2%	2.4%	3.3%	2.3%	2.0%	2.2%	1.2%	1.9%

Source: Massachusetts Department of Education, Statistical Reports, 2014

In 2015, 24 out of 35 districts had dropout rates that were either the same or lower than they were in 2006. While most school districts in the region had dropout rates below the regional 2.8% mark, three districts had much higher rates. Holyoke saw nearly 7.6% students drop out of high school. Ware schools had the second highest dropout rate in the county at 5.4%. Meanwhile, dropout rates in Springfield have decreased in the past three years to 5.1%, This continues a promising downward trend that began after 2011, when the dropout rate was over 11%. Holyoke's dropout rate has been less than 8% for three of the past four years, perhaps marking a new trend. Chicopee, another of the region's urban core cities, has reached its lowest dropout rate in over ten years, falling to 3.9% in 2015.

In 2015, just over 30% of Pioneer Valley residents aged 25 years and over had a bachelor's degree or higher (see Table 9). According to the 2011-2015 American Community Survey 5-year estimates, 11 of the Pioneer Valley's 43 communities had a higher percentage of college graduates than the statewide average (41.5% of the population) (See Figure 12). In four communities (Amherst, Pelham, Longmeadow, and Northampton) more than 50% of the residents had a bachelor's degree or higher. In contrast, there were 9 communities (including Ware, Ludlow, Chicopee, Holyoke, and Springfield) where the proportion was at or below 25%.

Given the region's rich endowment of higher education institutions, some of these rates are lower than expected. Other indicators, however, point towards the beginning of a positive trend. There has been a 34.6% increase in the population 25 years and over who have attained a bachelor's degree or higher since 2000 (see Table 9). Additionally, the number of people 25 years and over who are high school graduates increased by 15 percent.

Table 9: Educational Attainment in the Pioneer Valley Region - 2000 and 2015

	2000 Population	% of Population	2015 Population	% of Population	15 Year % Change
Population 25 Years and Over					,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Hampden County	295,837	100.0%	315,041	100.0%	6.5%
Hampshire County	93,193	100.0%	100,612	100.0%	8.0%
Pioneer Valley Region	389,030	100.0%	415,653	100.0%	6.8%
Less Than 9th Grade			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Hampden County	22,138	7.5%	18,336	5.8%	-17.2%
Hampshire County	3,104	3.3%	1,869	1.9%	-39.8%
Pioneer Valley Region	25,242	6.5%	20,205	4.9%	-20.0%
9th to 12th Grade, No Diploma					
Hampden County	39,325	13.3%	25,924	8.20%	-34.1%
Hampshire County	6,815	7.3%	4,416	4.4%	-35.2%
Pioneer Valley Region	46,140	11.9%	30,340	7.3%	-34.2%
*High School Graduate					
Hampden County	96,474	32.6%	100,930	32.0%	4.6%
Hampshire County	24,029	25.8%	21,461	21.3%	-10.7%
Pioneer Valley Region	120,503	31.0%	122,391	29.4%	1.6%
Some College, No Degree					
Hampden County	53,670	18.1%	59,595	18.90%	11.0%
Hampshire County	16,336	17.5%	15,318	15.2%	-6.2%
Pioneer Valley Region	70,006	18.0%	74,913	18.0%	7.0%
Associate's Degree					
Hampden County	23,676	8.0%	28,342	9.0%	19.7%
Hampshire County	7,544	8.1%	10,361	10.3%	37.3%
Pioneer Valley Region	31,220	8.0%	38,703	9.3%	24.0%
Bachelor's Degree					
Hampden County	37,752	12.8%	48,921	15.5%	29.6%
Hampshire County	17,995	19.3%	23,715	23.6%	31.8%
Pioneer Valley Region	55,747	14.3%	72,636	17.5%	30.3%
Graduate or Professional Degree					
Hampden County	22,802	7.7%	32,993	10.5%	44.7%
Hampshire County	17,370	18.6%	23,472	23.3%	35.1%
Pioneer Valley Region	40,172	10.3%	56,465	13.6%	40.6%
High School Graduate or Higher					
Hampden County	234,374	79.2%	270,935	86.0%	15.6%
Hampshire County	83,274	89.4%	94,374	93.8%	13.3%
Pioneer Valley Region	317,648	81.7%	365,309	87.9%	15.0%
Bachelor's Degree or Higher					
Hampden County	60,554	20.5%	81,911	26.0%	35.3%
Hampshire County	35,365	37.9%	47,187	46.9%	33.4%
Pioneer Valley Region	95,919	24.7%	129,098	31.1%	34.6%

Source: U.S. Census Bureau, Decennial Census 2000 and American Community Survey 2015 1-yr estimate *Includes Equivalency

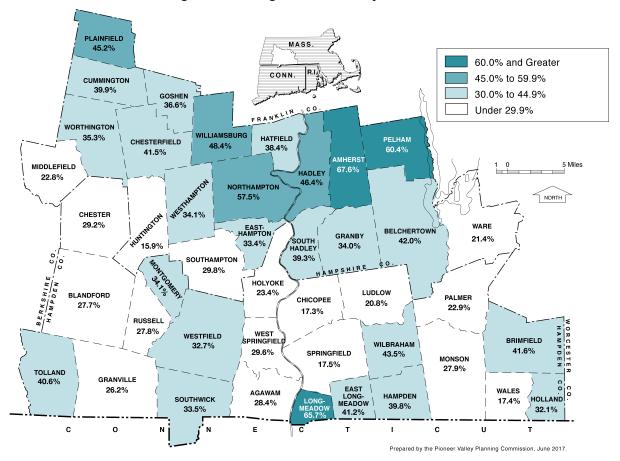


Figure 12: College and University Graduates

Source: US Census Bureau, American Community Survey 5-year estimates 2011-15.

Table 10: Number of College Graduates from the Pioneer Valley Region's Higher Education Institutions

College or University	Location	2011	2012	2013	2014	2015*
American International College	Springfield	1,065	1,128	1094	1359	995
Amherst College	Amherst	483	442	464	473	471
Bay Path College	Longmeadow	654	673	744	819	790
College of Our Lady of the Elms	Chicopee	337	395	415	521	545
Hampshire College	Amherst	308	356	316	328	291
Holyoke Community College	Holyoke	1,128	1,016	953	1094	876
Mount Holyoke College	South Hadley	572	568	619	598	662
Smith College	Northampton	874	846	885	842	855
Springfield College	Springfield	930	981	901	941	965
Springfield Technical Community College	Springfield	1,023	941	1096	1115	963
University of Massachusetts	Amherst	6,890	7,152	7207	7513	7193
Western New England University	Springfield	899	978	940	911	923
Westfield State University	Westfield	1,210	1,370	1362	1447	1463
Total Graduates		16,373	16,846	16,996	17,961	16,992

Source: Integrated Postsecondary Education Data System (IPEDS), 2016 (*2015 figure uses preliminary release data0

Our region's relatively low educational attainment rates, despite the existence of 13 area colleges and universities (see Table 10), demonstrates the Pioneer Valley's continuing struggle to retain those locally college-educated persons who possess the skills and knowledge critical for the health of the region's economy. The University of Massachusetts, Amherst, a leading national research university, anchors the Five College area of the Pioneer Valley. The other members of the Five College group are the prestigious Smith, Mount Holyoke, Amherst, and Hampshire colleges. Complementing the Five College consortium is a collaboration of eight area schools centered in the greater Springfield area. These include: American International College, Bay Path College, Elms College, Holyoke Community College, Springfield College, Springfield Technical Community College, Western New England University, and Westfield State University. Together, these 13 colleges and universities afford the residents and employers of the Pioneer Valley a multitude of opportunities and advantages that are unique to the region. These assets will undoubtedly continue to aid in the region's economic development initiatives.

The Economy

The Workforce and Employment

After experiencing the highest unemployment in ten years in 2010, the Pioneer Valley's economy is continuing to improve. Unemployment rates decreased from 8.5% in 2011 to 6.1% in 2015; while the number of employed people increased from 287,960 in 2011 to 289,091 in 2015. The declining unemployment rate is more directly attributable to a smaller labor force which decreased from 314,556 in 2011 to 307,893 2015. While the unemployment rate has shown improvements in the past few years, the decline in labor force participation may be due to people dropping out of the labor force because of a sluggish economy. Of course this cannot be assumed as the only cause of labor force reductions, as a declining labor force size could also be due to higher rates of retirement amongst a large population of older workers, among other factors.

[In 2013, this trend appeared to reverse as the unemployment rate increased again to 8.1% while the total number of people employed also increased by nearly 2,000 people (Figure 13). Decreases in both the labor force and unemployment continued, however, from 2014 to present.]

On the state level, unemployment rates also increased in 2013, while the nation experienced an overall decrease. Since then, however, unemployment has continued to fall. Nation-wide, unemployment reached a low of 5.3% in 2015 from 8.9% in 2011, and the Massachusetts rate fell from 7.4% to 5%. While these rates are still above 2007 figures, both the state and national rates are less than 1% higher, indicating a continued recovery. ...

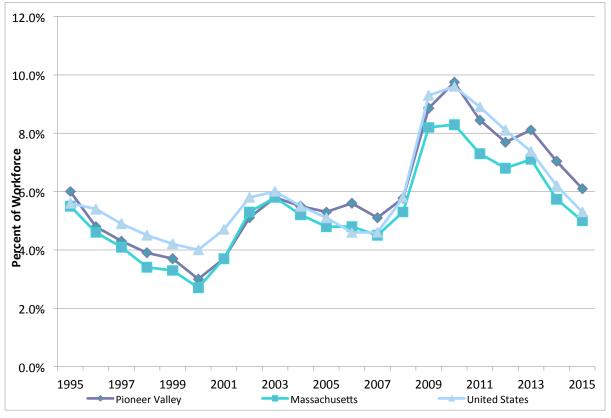


Figure 13: Unemployment Rates

Source: U.S. Bureau of Labor Statistics, MA Office of Labor and Workforce Development, 2016

While the labor force gained strength between 2010 and 2011, rising to the highest levels in twenty years (314,556 participants), this trend was followed by an overall decline in the subsequent years, decreasing by 6.663 participants between 2012 and 2015. There was a slight rebound in 2013 yet with fewer than 308,000 people, this was the second smallest labor force of the Pioneer Valley since the year 2000(see Figure 14). Between 1995 and 2005, the number of people who work in the Pioneer Valley rose from 273,692 to 294,446 (a gain of 20,774 jobs); however, between 2005 and 2015, the number of people employed fell by 5,375 jobs. While the labor force shrunk by 3.097 workers, between 2005-2015, the number of people unemployed increased by 2278 (see Figure 13).

320,000
300,000
290,000
280,000
260,000
250,000
un not have the part that the part the part that the

Figure 14: Pioneer Valley Region Labor Force and Employment with Trend Lines

Source: MA Office of Workforce Development, 1995-2015

Unemployment claims have fluctuated greatly over the last few years, demonstrating the unpredictable nature of the economic recovery. While there was a decline in the number of new unemployment claims in 2011, there was an increase in unemployment claims in 2012. Data available for the first portion of 2013 showed another decrease in new unemployment claims. The number of individuals filing new claims for unemployment insurance tends to fluctuate markedly by month, but December traditionally sees the highest number of new claims as employers let go of workers they had hired for the holiday season. Therefore, comparing new claims from December to December provides a helpful measure of economic health. In December 2008, the number of new claims in Franklin, Hampshire, and Hampden Counties was 9,268, the highest since 2001. In 2010, the December new-claims figure dropped to 6,391 and in 2011 it was down to 3,256; however, it appears that end of year unemployment claim increases were forestalled until January 2012, as the number of applicants increased to 5,165 the following month. In December 2012, the number of claims were lower than December 2010, 5,737 to 6,361 respectively, hinting at a slowly recovering economy (Figure 15). [No new data available, per EOLWD - 10/2016.]

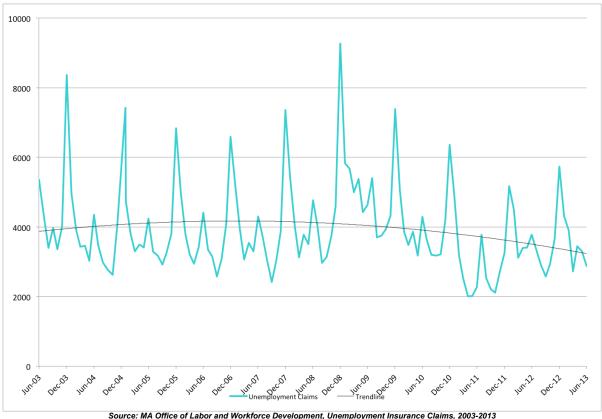


Figure 15: New Unemployment Insurance Claims, 2003 to 2013

Source: MA Office of Labor and Workforce Development, Unemployment Insurance Claims, 2003-2013 Note: This data is only available by Workforce Investment Board, so it includes Franklin County

Employment Distribution

The region's economy is in transition. Manufacturing was once the mainstay of the region's economy, employing more than 29 percent of the workforce in 1980. Like most of the nation, service sector employment is increasing in the Pioneer Valley region while the number of manufacturing jobs has decreased. Examples of professions in the service sector include healthcare, education, and other industries that focus on customer-provider interactions: automotive/household goods repair, beauty salons and barber shops, funeral homes, political organizations, and pet care. From 1990 to 2000, the service sector's share of total private sector jobs grew from 36.0 to 40.9 percent and as of 2015 the service sector comprised about 57% of the private sector. Manufacturing's share of jobs declined from 14.4% in 2000 to 8% in 2015.

Between 2010 and 2015, the fastest growing industries in the Pioneer Valley region were healthcare and social assistance, mining, administrative and waste services, construction and profession and technical services (Figure 16). Health care and social assistance alone grew by 30%, and provides 23.1% of all employment in the Pioneer Valley in 2015. Transportation and warehousing grew by 9%, and educational services grew by approximately 8%. In 2015, the four largest industries in the Pioneer Valley region, by total employment, were healthcare and social assistance; educational services; retail trade; and accommodation and food services. These four sectors account for 57% of the employment in the Pioneer Valley region.

94 118 618 569 Agriculture, Forestry, Fishing and Hunting Utilities Real Estate and Rental and Leasing Management of Companies and Enterprises Information Arts, Entertainment, and Recreation Professional and Technical Services Wholesale Trade 15718 Other Services, Ex. Public Admin \$678 10127 9640 Finance and Insurance 8997 9830 Transportation and Warehousing 8487 10298 Administrative and Waste Services 9140 10362 Construction **Public Administration** 23093 21232 Manufacturing 20201 21248 Accommodation and Food Services Retail Trade 36246 39169 **Educational Services** 47156 Health Care and Social Assistance 61510 0 10000 20000 40000 50000 60000 30000 70000 **Employment** ■2010 ■2015

Figure 16: Employment in the Pioneer Valley Region by Major Industry, 2010 and 2015

Source: Massachusetts Department of Workforce Development, ES-202 Program, 2016

Despite the large number of people employed in manufacturing, employment in the industry fell 8.1% between 2010 and 2015. This decline represents the ongoing transition from a manufacturing based economy to a service and knowledge based economy. Other industries that experienced significant decreases were: other services (45%), agriculture, forestry, fishing and hunting (8%), information (6%), and finance and insurance (4.8%). ,.

It is somewhat worrisome that one of the seven Pioneer Valley region industries with employment losses between 2010 and 2015 was information sector and finance and insurance (see Figure 17). Both are industries that pay good wages and employ soughtafter knowledge workers. Further research should be conducted to understand the employment losses in these industries.

Health Care and Social Assistance Mining Administrative and Waste Services Construction Professional and Technical Services Transportation and Warehousing **Educational Services** Utilities Real Estate and Rental and Leasing Accommodation and Food Services Wholesale Trade Public Administration Arts, Entertainment, and Recreation Retail Trade Management of Companies and Enterprises Finance and Insurance Information Agriculture, Forestry, Fishing and Hunting Manufacturing Other Services, Ex. Public Admin -25.0% -20.0% -15.0% -10.0% -5.0% 5.0% 10.0% 15.0% 20.0% 25.0% 30.0% 35.0% 0.0% **Percent Change**

Figure 17: Change in Pioneer Valley Region Employment by Major Industry, 2010 to 2015

Source: Massachusetts Department of Workforce Development, ES-202 Program, 2015

Work in finance and insurance, utilities, and management of companies and enterprises offer the highest weekly wages. Each industry offers a weekly wage greater than \$1,500 (see Figure 18).

Educational services, and healthcare, the region's top employment sectors have average weekly wages between \$858 and \$993. Unfortunately, several of the region's faster growing industries - accommodation and food services as well as retail trade - are among the lowest paying with average weekly wages of \$323 and \$546 respectively. The particularly low average weekly salary for accommodation and food services may be affected by a high rate of part-time workers in this industry.

Accommodation and Food Services Arts, Entertainment, and Recreation Agriculture, Forestry, Fishing & Hunting Retail Trade Other Services, Ex. Public Admin Administrative and Waste Services Real Estate and Rental and Leasing Health Care and Social Assistance Transportation and Warehousing **Educational Services** Information Construction Manufacturing Public Administration **Professional and Technical Services** Mining Wholesale Trade Management of Companies and Enterprises Finance and Insurance \$0 \$200 \$400 \$600 \$800 \$1,000 \$1,200 \$1,400 \$1,600 \$1,800 \$2,000 Average Weekly Wage

Figure 18: Average Weekly Wages by Industry in the Pioneer Valley Region, 2015

Source: Massachusetts Department of Workforce Development, ES-202 Program, 2016

Regional Employment

Within the Pioneer Valley region, over half (55.3%) of all employment is located in the urbanized communities of Springfield, Holyoke, and Chicopee, reaching a combined total employment of over 121,000. The northern urban areas, Northampton and Amherst, employ almost ,36,000 people. Other communities with high employment totals include the suburbs directly around the region's urban core, such as Agawam, Westfield, and West Springfield, each employing over 12,000 people. The City of Springfield alone is home to 36.3% of the region's jobs.

A comparison of average weekly wages and total wages for the region's employment centers reveals some discrepancies. The total employment in Springfield in 2015 was over 350% the total employment of Holyoke, but the total wages paid was more than 450% of the amount paid in Holyoke, indicative of the much higher average wages for jobs located in Springfield. This is also shown in the \$216 difference in the average weekly wages between Springfield (\$1,051) and Holyoke (\$835). Although workers in Chicopee were paid a higher average weekly wage (\$844) than those in Holyoke, the total employment was lower resulting in lower total wages. There is a significant gap in total employment and average wages between the northern cities of Northampton and Amherst. Although the total employment in Amherst was only 16,725, the average weekly wage was \$971. In contrast, total employment in Northampton was higher at 19.116 but the average weekly wage was \$899, a difference of \$72 per week. These differences also appear in a comparison of suburban towns located near the urban core cities, like Agawam, East Longmeadow, and Ludlow. Total employment was higher in Agawam (12,040) than in East Longmeadow (7,764) or Ludlow (6,862). However, the average wage in Agawam was slightly lower at \$858 than in East Longmeadow (\$862) but higher than Ludlow (\$836).

Table 11: Pioneer Valley Region's Top 10 Employment Centers for 2015

Community	Average Employment	Percent of Region's Employment	Average Weekly Wage	Total Wages
Springfield	79,547	36.3%	\$1,051	\$4,345,579,600
Holyoke	22,237	10.2%	\$835	\$965,098,895
Chicopee	19,257	8.8%	\$844	\$844,651,974
Northampton	19,116	8.7%	\$899	\$893,928,176
Westfield	18,471	8.4%	\$888	\$852,811,396
West Springfield	16,907	7.7%	\$796	\$699,677,646
Amherst	16,725	7.6%	\$971	\$844,769,023
Agawam	12,040	5.5%	\$858	\$537,453,383
East Longmeadow	7,764	3.5%	\$862	\$348,077,653
Ludlow	6,862	3.1%	\$836	\$298,254,040

Source: Massachusetts Department of Workforce Development, 2015

The regional map showing unemployment rates by workers' place of residence in 2015 (Figure 19) indicates that some of the region's largest employment centers also have high unemployment rates among their residents, suggesting that residents of some urban communities are not benefiting from their proximity to the region's leading employers. Springfield, which had the highest number of jobs (total employment) in the region (as seen in Table 11), also had the highest unemployment rate among residents at 9.3%. Holyoke ranked second for total employment, yet their unemployment rate (8.1%) ranks second highest in the region for residents of the community. Chicopee was the third largest employer in 2015, but had an% unemployment rate of 6.6% in 2015.

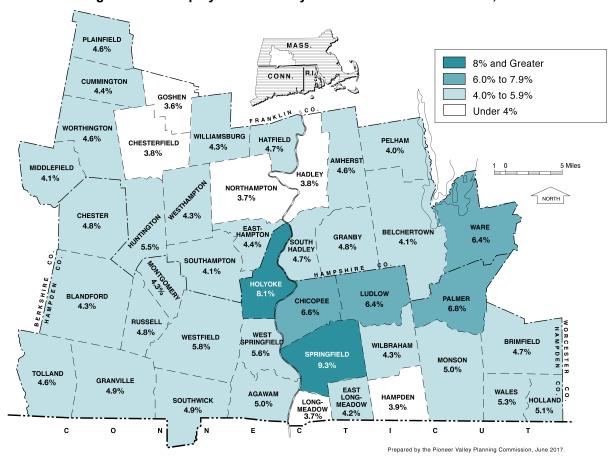


Figure 19: Unemployment Rates by Worker's Place of Residence, 2015

Source: MA Office of Labor and Workforce Development, 2015

A comparison of the total employment in the top employment centers in 2015 (Table 11) and the labor force (Figure 20) indicates that not all of the region's employment centers are importing workers from other communities. In communities such as Agawam, Amherst, Chicopee, and Westfield, the number of workers living there were larger than the number of jobs – indicating that these communities must export workers to other communities.

However, the total employment in Springfield, Holyoke, Northampton and West Springfield in 2015 exceeded the number of workers living in those cities in the same year; therefore, those regional employment centers are attracting workers from other cities and towns in the region. The high unemployment rate for residents of the region's larger cities suggests that there is a skills mismatch between the residents and the needs of employers in these communities.

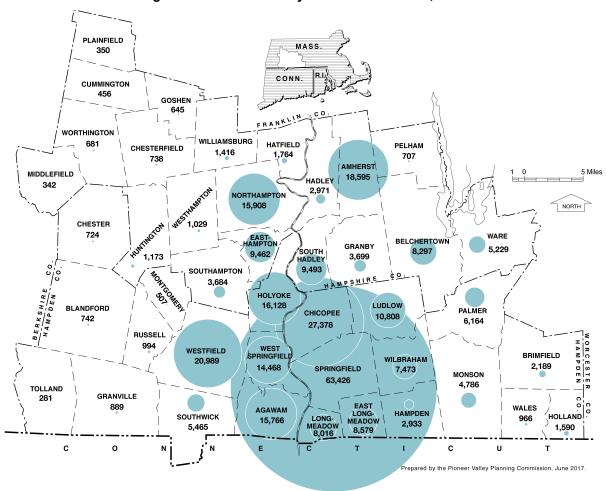


Figure 20: Labor Force by Place of Residence, 2015

source: US Bureau of Labor Statistics, Local Area Unemployment Statistics, 2015

Regional Employers

The Pioneer Valley region's economy is rooted in small businesses. About 94% of businesses in 2009 and 2015 were firms of fewer than 50 employees (Figure 21), and approximately 70% of firms had fewer than 10 employees.

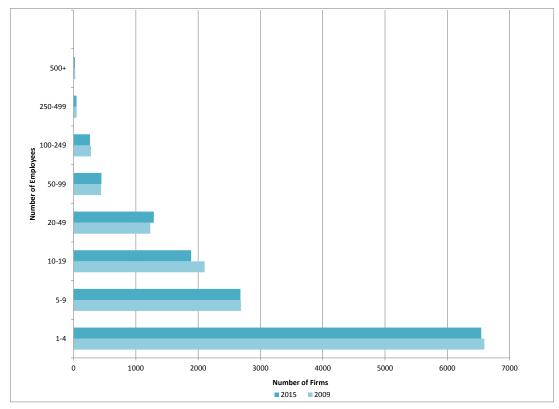


Figure 21: Numbers of Employers by Size in the Pioneer Valley Region, 2009 and 2015

Source: U.S. Census Bureau, County Business Patterns, 2006 and 2011

The percentage of firms employing between 100 and 499 people was 2.4% in 2015 and 0.2% firms had more than 500 employees in 2015 (Figure 21). Among the region's largest employers are Baystate Health, Sisters of Providence Health System, Cooley Dickinson Hospital, and Holyoke Medical Center. These large health service sector employers are located in three of the region's top employment centers (Table 11), Springfield, Holyoke, and Northampton. In addition, seven of the region's colleges and universities are also major employers, and some of the largest employers in the region are firms with national name recognition, such as Massachusetts Mutual Life Insurance Co.,and C&S Wholsale Grocers,.

For more detailed information and analysis of employment and major employers in the region, please see the 2008 Major Employers for the Pioneer Valley Region report, available on the PVPC website/Commute Trends digest for a discussion of major employment centers in the region.

For extensive analysis of the businesses that are growing in the region, please see the Pioneer Valley Growth Business Study completed in 2013. The full study and executive summary are also available on the PVPC website.

Table 12: Major Employers in the Pioneer Valley Region in 2015

Company	Location	Primary Industry Code		
Company Location Location		Primary Industry Code		
5,000 to 10,000 Local Employees	Amherst	Educational Services		
University Of Massachusetts 1,000 to 4,999 Local Employees	Amnerst	Educational Services		
C & S Wholesale Grocers Inc	Hatfield	Grocery and Related Product Merchant Wholesalers		
Cooley Dickinson Hospital	Northampton	General Medical and Surgical Hospitals		
Smith College	Northampton	Colleges, Universities, and Professional Schools		
Baystate Health System Inc	Springfield	General Medical and Surgical Hospitals		
City of Holyoke	Chicopee	Executive, Legislative, and Other General		
City of Holyoke City of Springfield - School Dept	Springfield	Administration of Human Resource Programs		
City of Springfield - School Dept City of Springfield	Springfield	Executive, Legislative, and Other General		
General Dynamics Techsight	Springfield	Aerospace Products and Parts Manufacturing		
Hampden Cnty House-Correction	Ludlow	Executive, Legislative, and Other General		
		· · · · · · · · · · · · · · · · · · ·		
Holyoke High School	Holyoke	Elementary and Secondary Schools		
Holyoke Medical Ctr	Holyoke	General Medical and Surgical Hospitals		
Managahusatta Mutual I ifa laa	Comin outin lal	Agencies, Brokerages, and Other Insurance Related		
Massachusetts Mutual Life Ins	Springfield	Activities		
OMC Inc	A	Management, Scientific, and Technical Consulting		
OMG Inc	Agawam	Services		
Sisters of Providence Health	Springfield	Other Ambulatory Health Care Services		
Smith & Wesson Holding Corp	Springfield	Other Fabricated Metal Product		
US Post Office Bulk Mail Ctr	Springfield	Advertising, Public Relations, and Related Services		
Weldon Rehabilitation Hospital	Springfield	General Medical and Surgical Hospitals		
500 to 999 Local Employees				
Amherst College	Amherst	Colleges, Universities, and Professional Schools		
Delivery Express	Amherst	Local Messengers and Local Delivery		
Mt Holyoke College	South Hadley	Colleges, Universities, and Professional Schools		
US Veterans Medical Ctr	Leeds	General Medical and Surgical Hospitals		
Va Central Western Ma	Leeds	Executive, Legislative, and Other General		
Agawam School Superintendent	Feeding Hills	Elementary and Secondary Schools		
Agawam Town of School Dept	Feeding Hills	Administration of Human Resource Programs		
Baystate Medical Ctr	Springfield	General Medical and Surgical Hospitals		
Baystate Noble Hospital	Westfield	General Medical and Surgical Hospitals		
Big Y Foods Inc	Springfield	Grocery Stores		
	East			
Cartamundi	Longmeadow	Other Miscellaneous Manufacturing		
Chicopee City Hall	Chicopee	Executive, Legislative, and Other General		
Comm of Ma Trial Courts	Springfield	Justice, Public Order and Safety		
		Miscellaneous Durable Goods Merchant		
Ethos Energy	Chicopee	Wholesalers		
		Electric Power Generation, Transmission and		
Eversource Energy	West Springfield	Distribution		
Holyoke City	Holyoke	Executive, Legislative, and Other General		
Holyoke Community College	Holyoke	Junior Colleges		
J Polep Distribution Svc	Chicopee	Grocery and Related Product Merchant Wholesalers		
		Newspaper, Periodical, Book, and Directory		
Republican	Springfield	Publishers		
Six Flags	Agawam	Amusement Parks and Arcades		
Solutia Inc	Indian Orchard	Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing		
Springfield College President	Springfield	Colleges, Universities, and Professional		
Springfield Police Dept	Springfield	Executive, Legislative, and Other General		
Swab-Its Foam Swabs	Indian Orchard	Other Miscellaneous Store Retailers		
US Post Office	Springfield	Postal Service		
Westfield State University	Westfield	Colleges, Universities, and Professional		
Wing Memorial Hosp & Med Ctr	Palmer	General Medical and Surgical Hospitals		
g momoriai riosp & mea oti				

Source: MA Department of Labor & Workforce Development

The Infrastructure

Real Estate

Housing

Where homes have been built and will continue to get built as well as the type and characteristic of our housing is a reflection of land use policies, the strength or weakness of the housing market, mortgage lending practices, housing discrimination, transportation networks, topography, and public infrastructure. Our settlement patterns and built environment are also a reflection of structural issues such as economic security and educational attainment, which taken together, can promote or hinder self-sufficiency, mobility and residents' abilities to obtain and maintain stable housing situations. One who does not need to worry about finding a safe and decent place to live can devote time to other pressing concerns, such as education, employment, personal health and community well-being. Housing is a basic human need and one of the most significant expenditures individuals and families face. This region needs a full range of housing opportunities that are affordable to households of all racial and ethnic backgrounds, abilities, and income ranges to ensure that our region remains economically competitive.

Housing Market

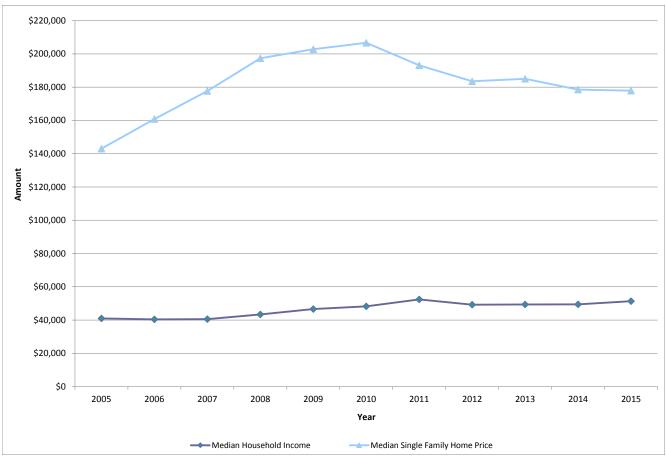
In the first decade of the 2000s, particularly between 2005 and 2007, housing prices rose in the region as well as nationwide (Figure 22). Although the housing market crash impacted the region, with a decrease in median single-family home prices by 14% between 2007 and 2012, the housing market is now showing signs of recovery. Between 2012, and 205 median sing-family home prices increased by 10.3% in the region. Figure 22 also shows how household incomes have not kept pace with increased housing costs. Signaling the possibility of a real shift, however, the 2013 regional median sale price, surpassed the 2009 regional median sale reaching a median sale price of \$191,382 for a single family home. In 2015, this figure increased again, to \$198,429.

Our region has strong and weak housing markets which affect the cost of housing, the quality of housing, and the demand for housing. Figure 23 demonstrates the significant variation of our region's strong and weak housing markets in the form of single-family home prices. While prices are still not what they were before the beginning of the housing crises in 2007, the data shows that declines are beginning to level off and prices are beginning to turn around. The communities with the strongest housing markets had median sale prices close to \$300,000, including, Amherst, Longmeadow, and Hadley. At the same time, more than half of the communities in the region had prices under \$200,000. The strong market communities tend to be the most desirable communities in the region. Strong demand for homes in these communities is driven by having good schools, low crime rates, and low poverty rates. Housing in these communities tends to have higher sale prices, home values, and higher rents, which has the affect of limiting the potential for a household with more limited economic means from being able to afford to buy or rent in the community.

The communities with weaker housing markets had median sale prices of single family homes around or below \$150,000. Springfield, Tolland, and Cummington experienced the lowest home prices in the region with Springfield and Cummington at \$133,000 and \$130,000 respectively, and Tolland at \$125,000. Blandford, Ware, and Plainfield also had median sale prices at or below \$150,000 levels in 2015 (Figure 23). Our weak market

communities tend to have low property values and high vacancies. The main revitalization challenge facing our central cities are weak housing markets. Low property values create a disincentive for homeowners and landlords to make capital or maintenance improvements to their properties because the cost of these improvements can be greater than the overall value of the property or does not increase the value of the property. Divestment from low property values has led to vacant or deteriorating housing, which creates neighborhood blight and makes for unsafe living conditions.

Figure 22: Median Household Income and Single-Family Home Prices in the Pioneer Valley Region, 2005-2015



Source: Pioneer Valley Planning Commission, American Community Survey 2015 one year estimate

Studies conducted as part of the regional housing plan found that weak market cities and towns in the Pioneer Valley would like to see their communities become desirable places to live—places of choice—and see a greater variety of market rate housing options created in the vacant or underutilized upper story spaces of their downtowns as well as on vacant lots and within underutilized properties that would attract moderate, middle, and upper income households. Anecdotal evidence suggests that there are young professionals, emptynesters, or two person households who desire to rent apartments or buy condominiums in our cities but are unable to find housing that suits their tastes in areas they find safe and that have ready access to goods and services. However, the depressed housing market makes it financially difficult to develop new housing on infill lots or within existing mill and commercial buildings or renovate existing multi-unit residential buildings for households that would pay

market rent. Housing developers point to the problem that current market rents are typically insufficient to support the cost of new construction or significant rehabilitation of multi-unit housing. The limited state or federal public subsidies that exist to help developers fill the financing gap require income-restricted housing as a condition of receipt of these funds. These restrictions are good practice in many instances but can also serve as one more barrier to attracting an economically diverse population to urban neighborhoods and to increasing home-ownership rates.

A weak housing market can exist in spite of an unmet need for housing that is affordable to residents in that community. A key reason for this disparity is the very low incomes of residents in our weak market cities and towns. There is tremendous demand for existing affordable housing units, and these programs all maintain waiting lists. The strong demand for affordable housing units and lack of sufficient supply of these units is a statewide issue.

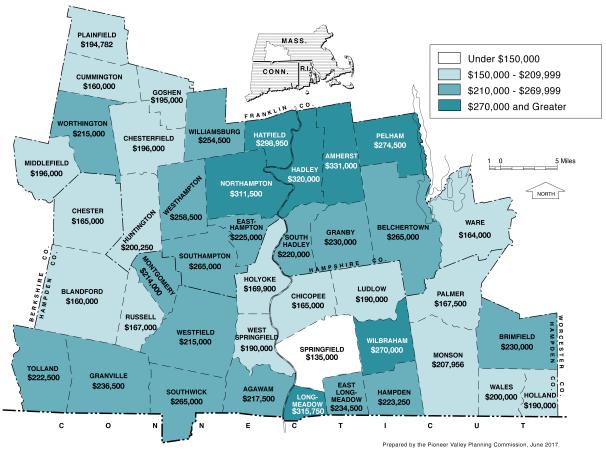


Figure 23: Median Sale Price of Single-Family Homes in the Pioneer Valley Region (2015)

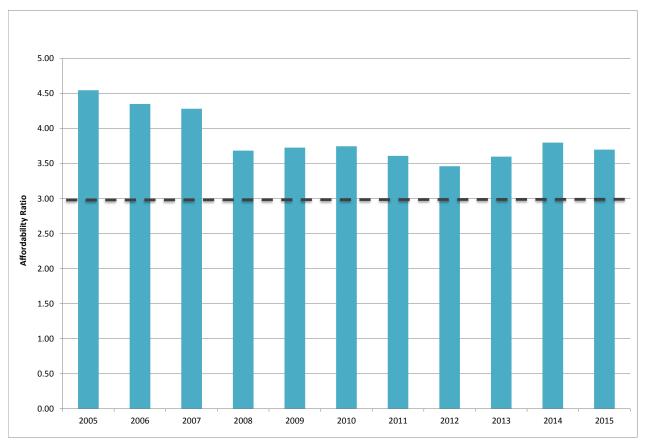
Source: The Warren Group 2015

Housing Affordability

Recent declines in housing prices have not solved the issue of housing affordability, as incomes have decreased when inflation is factored in. It is generally accepted that a household can afford a home up to a price that is equal to three times the household yearly income. Households who pay more than this for a home are considered "cost-burdened" and may have difficulty affording necessities such as food, clothing, transportation and medical care as well as saving for their future and that of their families. Considering the

median household income in the Pioneer Valley in 2015 was \$53,769, that translates into approximately \$161,000 of purchasing power for a home. Only nine out of forty-three communities in the region had median housing prices equal to or less than that amount in 2016. This is an increase from the four communities with affordable housing in 2009, which may suggest the beginnings of favorable housing prices in the area. Springfield and Holyoke have many homes available for under \$150,000 and are actively promoting their affordable home-ownership opportunities through programs such as "Buy Springfield Now" and "Buy Holyoke Now" as a way to attract first-time homebuyers into their cities. At the same time, several communities such as Longmeadow, Pelham, and Amherst have remained consistently unaffordable to households that earn below the region's median household income.

Figure 24: Pioneer Valley Region Housing Affordability Ratio (Median Price/Median Income), 2005-2015



Source: U.S. Census Bureau ACS; SAIPE; Pioneer Valley Planning Commission, 2005-2015

Another way to examine the problem is through the use of a housing affordability ratio (See Figure 24). The Pioneer Valley's housing affordability ratio can be calculated by dividing the median price of a single family home by the median household income. Therefore an affordability ratio above 3.0 is of concern because it means that, statistically, a household with the median income in the region cannot afford a single family home at the median price. The affordability ratio steadily climbed starting in 1997, and passed the 3.0 threshold in 2001. Although the affordability ratio decreased between 2007 and 2012, it increased slightly from 3.46 in 2012 to 3.7 in 2015. This is an indication that the increase in housing prices between 2012 and 2015 has outpaced the concurrent increase in incomes, thereby

limiting housing affordability. A ratio of 3.7 is of concern. In the long run, the issue of housing affordability will continue to be very important, especially if incomes do not increase or if increases in income do not keep pace with rising housing prices.

Transportation

Vehicle Roadways

The Pioneer Valley area is considered the crossroads of transportation in western Massachusetts. Situated at the intersection of the area's major highways, Interstate 90 (Massachusetts Turnpike) traveling east-west and Interstate 91 traveling north-south, the region offers easy access to all markets in the eastern United States and Canada. Major southern New England population centers are accessible within hours.

The interstate expressways (I-90 and I-91) link most of the major urban centers in the region. The basic highway network, including interstate highways, U.S. numbered routes, state routes, and other traffic arteries, provides access to all municipalities in the region, both urban and rural. The pattern of principal arterial highways in the region is radial, extending outwards from each of the region's major centers, a consequence of development and topographic influences.

Of the existing transportation facilities in the Pioneer Valley region, major bridge crossings remain a focal point of regional transportation concerns, as many streets and highways converge into a limited number of crossings over the Connecticut, Westfield, and Chicopee rivers.

Table 13: Driving Distances and Times from Springfield to Select Urban Centers

Destination	Distance in Miles	Estimated Driving Time
Albany	85	1.5 hours
Boston	91	1.5 hours
Montreal	301	5.5 hours
New York City	140	3.0 hours
Philadelphia	260	5.0 hours
Washington, DC	400	8.0 hours

Source: PVPC, Regional Transportation Plan for the Pioneer Valley – 2007 Update

Table 14: Major Interstate Highways Serving the Pioneer Valley Region

Interstate Highway	Principle Orientation	Number of Interchanges in the Region	Road Mileage in the Region	Toll Road?
I-90	East/West	6	46.08	Yes
I-91	North/South	22	31.17	No
I-291	Connector (Springfield to I-90)	6	5.44	No
I-391	Connector (I-91 to Chicopee/Holyoke)	6	3.82	No

Source: PVPC, Regional Transportation Plan for the Pioneer Valley – 2000 Update

In general, traffic on the region's roadways has been increasing. Between 1999 and 2009 the estimated number of daily vehicle miles traveled (DVMT) in the Pioneer Valley region rose about nearly half of a million miles per day, from about 14.76 million to about 15.23 million. The magnitude of increase is shared in the region's rural areas. Table 15 presents the commute times for each of the Pioneer Valley communities in 2000 and 2015. The 11.5% increase in commuter times can be attributed to several major trends including a rise in vehicle ownership and the onset of several major roadway improvement projects, such as the Great River Bridge in Westfield.

Table 15: Pioneer Valley Region Average Commute Times to Work

	Mean Driving Time to Work (minutes)		
	2000	2011-2015	% Change
Massachusetts	27	28.7	6.3%
Pioneer Valley Region	21.8	22.8	4.6%
Hampden County	21.8	22.7	4.1%
Hampshire County	21.9	23	5.0%
Agawam	20.5	21.8	6.3%
Amherst	18	18.1	0.6%
Belchertown	28.1	27.5	-2.1%
Blandford	37.5	35.2	-6.1%
Brimfield	30.1	35.3	17.3%
Chester	38.9	34.8	-10.5%
Chesterfield	29.4	33.8	15.0%
Chicopee	19.3	20.1	4.1%
Cummington	38.3	33.1	-13.6%
East Longmeadow	21.9	23.7	8.2%
Easthampton	21.1	22.8	8.1%
Goshen	31	33.4	7.7%
Granby	20.6	27.6	34.0%
Granville	29.5	33	11.9%
Hadley	21.9	19.9	-9.1%
	26.4	28.5	8.0%
Hampden			
Hatfield	20.9	21.2	1.4%
Holland	34.2	32.1	-6.1%
Holyoke	18.6	20.1	8.1%
Huntington	34.4	33	-4.1%
Longmeadow	20.3	20.3	0.0%
Ludlow	21.3	23.7	11.3%
Middlefield	41.6	37.1	-10.8%
Monson	29.5	31.1	5.4%
Montgomery	29.7	28.6	-3.7%
Northampton	20	21.1	5.5%
Palmer	22.9	28.5	24.5%
Pelham	22.3	23.2	4.0%
Plainfield	33.5	33.3	-0.6%
Russell	28.1	31.7	12.8%
South Hadley	19.4	21.2	9.3%
Southampton	24.8	26.2	5.6%
Southwick	26.4	26	-1.5%
Springfield	21.5	21.7	0.9%
Tolland	39.4	38.3	-2.8%
Wales	36.7	36.4	-0.8%
Ware	25.8	28.7	11.2%
West Springfield	20.9	20.7	-1.0%
Westfield	22.6	22.6	0.0%
Westhampton	25.2	25.5	1.2%
Wilbraham	24.3	25.8	6.2%
Williamsburg	23.3	23.7	1.7%
Worthington	40.5	38	-6.2%

Source: U.S. Census Bureau, 2000 Decennial Census and 2011-15 American Community Survey 5-Year Estimates

Transit Routes

The Pioneer Valley has a well-developed public transit system that includes local bus service, ADA and senior paratransit van service, intercity bus service, and passenger rail. In addition, there are formal and informal park-and-ride lots, as well as ridesharing and car rental services that offer more options for accessing and leveraging transit services. Train service was expanded to Northampton and Holyoke in 2015, and additional passenger rail services and facilities are now in the planning and construction processes. These will greatly enhance transit capacity in the region. All of these elements are vital contributors to mobility options for the region's residents.

The Pioneer Valley Transit Authority (PVTA), established in 1974 is the largest of the Commonwealth's 14 regional transit authorities. A total of 24 municipalities are members of the PVTA service area. PVTA oversees the operation of 174 buses and 135 vans throughout Hampden and Hampshire Counties, as well as two municipalities in Franklin County. The PVTA system has 43 scheduled bus routes that provide service in urban centers, as well as outlying suburban and rural areas.

14,000,000 12,000,000 10,000,000 8,000,000 6,000,000 4,000,000 2,000,000 0 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 Trips on Paratransit Vans Trips on Fixed Route Buses

Figure 25: Pioneer Valley Transit Authority System Wide Annual Bus and Van Trips 2005-2015

Source: PVTA Annual Reports

Fourteen towns in the PVPC region (which are not members of PVTA) contract with the Franklin Regional Transit Authority (FRTA) based in Greenfield, for senior paratransit service. These towns are: Blandford, Chester, Chesterfield, Cummington, Goshen,

Huntington, Middlefield, Montgomery, Plainfield, Russell, Southampton, Southwick, Westhampton, and Worthington.

Intercity bus service in the region is provided by Peter Pan Bus Lines, Greyhound Lines and Megabus. These companies operate a mix of routes to destinations within the region, as well as connections throughout New England and the country. Other private bus carriers provide charters and package tours.

The regional transit system includes the following bus terminals and hubs:

- Springfield Bus Terminal is the major bus station in western Massachusetts, serving as the hub for 22 PVTA Springfield-area routes, Peter Pan regional service, and Greyhound regional routes.
- Holyoke Transportation Center is the hub for 6 PVTA routes, as well as limited service by Peter Pan.
- Northampton Bus Terminal is served by Peter Pan and Greyhound, with connections to 8 PVTA and FRTA routes at the nearby Academy of Music stop.
- Amherst, PVTA and Peter Pan service is available at the UMass Haigis Mall and Amherst Town Common. Megabus "Amherst" service stops only at the Hampshire Mall in Hadley.

Passenger rail stations for Amtrak service at the Springfield Depot (Lyman Street), Northampton's Union Station (Pleasant Street) and Holyoke station (Main Street) (. . Amtrak's most frequent service is at Springfield Station, where 12trains per day are available to and from Springfield that provide extensive service within the Northeast. Passenger rail service is provided on east-west (Lake Shore Limited) north-south (Vermonter) and regional (Northeast Corridor) routes through the region.

The Massachusetts Department of Transportation recently realigned Amtrak Vermonter service north of Springfield to restore passenger rail service to the Connecticut River line through Holyoke, Northampton and Greenfield. This project was funded by a \$70 million dollar grant provided in part by the American Recovery and Reinvestment Act (ARRA) High-Speed and Intercity Passenger Rail Program under the Federal Railroad Administration.

In addition, the Connecticut Department of Transportation's New Haven-Hartford-Springfield (NHHS) commuter rail project is underway, which will nearly double north/south passenger rail capacity at the Springfield terminal. The first trains on this service are expected in 2018.

Commercial van shuttles serve an important segment of the region's transit market. Many operators focus on service to and from airports and rail stations in New England. Service to Bradley International is provided hourly from most locations the Pioneer Valley. Service to Boston, Providence, and New York is also provided, though not on a scheduled basis. Non-profit organizations also operate shuttles, typically for their clients. Examples include municipal councils on aging, day care providers and social service agencies.

There are more than 20 taxi companies operating in the region. Taxi companies provide a vital link in the transportation system by offering mobility during times and at locations when public transportation is not available.

Non-Motorized Transportation

Bicycling and walking are popular transportation options in the Pioneer Valley. Historic town centers, vibrant central business districts and a variety of destination are within easy walking or bicycling distance from many residential neighborhoods. An expanding network of bikeways, sidewalks, and accommodating roadways provide residents with a variety of transportation alternatives. Many of the region's downtowns including Springfield, Holyoke, Northampton, and Amherst, offer easy accessibility to pedestrians and are supported by a strong transit network.

To support the increasing number of people who walk and bike, the Pioneer Valley Planning Commission has developed a strategic plan of policy-related actions and physical projects in which municipal and regional officials along with citizens and nonprofit organizations can collaborate on to improve conditions for pedestrians and bicyclists in the Pioneer Valley. The plan includes information and recommendations for incorporating bicycle and pedestrian features into the design phase of road reconstruction projects, using zoning and community development tools to foster environments that support bicycling and walking, increasing bicycle and pedestrian safety through design enhancements, and promoting bicycling and pedestrian through "Complete Street" policy initiatives

Recently the Pioneer Valley Transit Authority expanded its "Rack and Roll" bikes-on-buses program to the entire region. Now all fixed route buses in the PVTA fleet are equipped with frequently used racks, allowing cyclists to transport their bikes on public service transit lines throughout Hampden and Hampshire Counties.

Through the Pioneer Valley "Share the Road," program the PVPC has worked jointly with the Franklin Regional Council of Governments and the Massachusetts Department of Transportation (MassDOT) on the installation 380 bike related signs including "Share the Road" signs, "Bike Route" signs, "Connecticut River Walk" signs, as well as directional signs. The Pioneer Valley Share the Road Program also produced an educational video and public service announcement that was distributed through local cable access channels and via the internet.

The region has an ever expanding network of off-road facilities ranging from traditional bike paths to multi-use trails or linear parks. The PVPC assisted local municipalities on the installation of more than 300 bicycle parking racks throughout the region's urban cores with the capacity to secure more than 900 bicycles. The PVPC also produced a series of instructional bike-rack installation videos to assist communities and nonprofit organizations which are available at the PVPC's video hosting site:

http://www.youtube.com/user/PVPCgroup. Currently sixteen communities provide 80 miles of bicycle lanes, multi-use paths or "rail trails" in the region, while several communities have similar projects in the design phase. In addition, the Pioneer Valley communities are active participants in "Baystate Bike Week" with dozens of activities hosted during the third week of May each year (http://baystatebikeweek.org/).

The Norwottuck Rail Trail is one example of the region's commitment to bicycling and walking. The ten-mile Norwottuck Trail links together the communities of Northampton, Hadley, Amherst, and Belchertown, and facilitates travel to and from educational institutions, downtown commercial areas, major employment centers and residential neighborhoods. Weekend traffic counts show an average of 1,200 people per day utilize the Trail during the peak season which includes when local colleges and the University of Massachusetts.

Amherst are in session. The Massachusetts Department of Conservation and Recreation (DCR) and Massachusetts Department of Transportation (MassDOT) started a reconstruction project for the Norwottuck Rail Trail in 2013. The reconstructed path will be wider in most places, incorporate improved access for the disabled, and re-decked bridges. (More information available at www.mass.gov./dcr/projects/norwottuck/index.htm).

Many communities in the Pioneer Valley have begun to address pedestrian safety and health related issues though the initiation of "Safe Routes to School Programs." Safe Routes to School (SRTS) promotes healthy alternatives for children and parents in their travel to and from school. The program educates students, parents and community members on the value of walking and bicycling and provides funding for sidewalks, crosswalks, and traffic calming measures. In 2015 fifteen of the Region's 43 cities and towns had schools enrolled in the SRTS program including Amherst, Easthampton, Granville, Hadley, Hatfield, Holyoke, Longmeadow, Northampton, Palmer, Southampton, South Hadley, Springfield, West Springfield Westfield, and Williamsburg.

Transportation of Goods

The Pioneer Valley region is strategically located at a geographic crossroads in which more than one-third of the total population of the United States can be reached by overnight delivery. The region is also well-positioned to support new ventures in international trade, especially in Canadian and European markets. An efficient multi-modal transportation network includes truck, rail, air and pipeline.

Trucking is the dominant mode for moving freight in the Pioneer Valley. This mode carries over 91% of all freight in the region. This regional percentage share is slightly higher than the state, which on average transports 86% of freight by truck. Urbanized communities in the region have at least one trucking firm, the majority of these carriers are small, short haul carriers handling feeder and distribution traffic. They provide both full truckload and less than truckload deliveries. This mode has the ability to transport goods to the northeastern United States and southeastern parts of Canada by overnight service. These freight companies carry goods for a variety of industries outside Hampden and Hampshire County. Franklin County possesses few freight companies and often employ/hire Hampden and Hampshire based trucking companies to transport their goods. Essentially, this transportation service sector is exported to other areas, in turn producing regional income. The future competitiveness of the industry hinges on the investment in the maintenance and development of interstate, state and local roadways, multimodal facilities and all related infrastructure as truck traffic is expected to grow throughout the state over the next twenty years.

Five rail carriers provide freight service in the Pioneer Valley Region: CSX Transportation, Pan AM Southern, New England Central, Pioneer Valley Railroad, and MassCentral Railroad. The region's largest freight and intermodal yard, operated by CSX, is located in West Springfield. Another major freight and switching yard important to the region is B&M's North Deerfield Yard, located in neighboring Franklin County to the north. Within the Pioneer Valley, other smaller freight yards are located in Holyoke, Palmer, and Westfield. The geographic location of the Pioneer Valley at the crossroads of interstate highways 90 and 91 and long-haul rail lines (CSX and B&M) creates a strategic and attractive location for businesses and industries participating in local and international marketplaces.

In addition, air freight and package express services are readily available in the Pioneer Valley region. Predominantly, air freight is moved through either Bradley International Airport in Windsor Locks, Connecticut; Logan Airport in Boston; or New York City's metropolitan airports. Air freight is also handled at Westover Airport in Chicopee. None of the other airports located within the region's boundaries offer air cargo services at this tim