

# *Regional LMI Profile*



***Annual Profile for North Central Workforce Area  
May 2010***



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Executive Office of Labor and  
Workforce Development  
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**MassLMI**  
Labor Market Information

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## Summary of Trends in the North Central Workforce Area

### Profile of Unemployment Insurance Claimants

- A total of 5,917 individuals were collecting regular Unemployment Insurance in the North Central Workforce Area during March 2010, with 31.7% collecting for at least 15 weeks. The percentage collecting 15+ weeks was slightly less than the statewide percentage of 32.9%.
- Among the UI claimants in North Central, 29.3% earned less than \$500/week on their previous job compared to 30.2% for Massachusetts as a whole. By contrast, 30.0% of North Central claimants had weekly wages in excess of \$1000/week as opposed to 30.7% across the entire Commonwealth.
- With regard to age, 46.3% of North Central claimants in March 2010 were 45 years or older which was slightly above the statewide share of 44.6%.
- The proportion of North Central claimants that were high school dropouts (9.4%) was lower than the statewide share of 10.6%. At the same time, the percentage of North Central UI claimants that possessed at least a Bachelor's Degree (14.0%) was significantly below their statewide counterparts (19.6%).
- The four largest occupational categories in North Central; Construction (21.7%), Production (12.2%), Office and Administrative Support (11.0%), and Management (8.5%), accounted for 53.4% of all claimants in North Centrals.
- From an industry perspective, Construction (26.2%) and Manufacturing (14.7%), represented 40.9% of all claimants. In addition, Administrative Support and Waste Management Services (12.6%) and Retail Trade (7.8%), contributed to the claimant population.

### Labor Force and Unemployment

- Every Workforce Area in the state experienced substantial increases in unemployment during the past year. Between the first quarters of 2009 and 2010, the seasonally unadjusted unemployment rate in the North Central Workforce Area increased from 9.4% to 11.4%. A total of 14,521 North Central residents were unemployed in first quarter 2010, an increase of 2,738 (23.2%) over the year. During this same period, the seasonally unadjusted unemployment rate in Massachusetts increased from 8.2% to 9.9%, representing 342,133 unemployed residents statewide, an increase of 62,477 (22.3%) over the year.
- The number of employed persons in North Central decreased by -1,039 (-0.9%) to a 2010 first quarter level of 113,190. Between the first quarters of 2009 and 2010, the number of employed persons in Massachusetts decreased by -4,457 (-0.1%).
- During the period under review, the North Central labor force increased by 1,699 (1.3%), while the Massachusetts labor force increased by 58,020 (1.7%) to 3,463,462.

## **Summary of Trends in the North Central Workforce Area**

### **Employment by Firm Size**

- Small employers dominate the North Central Workforce Area. Among the 6,140 establishments reporting employment in March 2009, 87.6% had fewer than 20 employees. These firms, however, accounted for just 27.3% (21,566) of the jobs located in the North Central Workforce Area.
- In contrast to the small business employers, 139 establishments (2.3%) reported having at least 100 employees. These firms, however, were responsible for 41.6% (32,933) of all jobs located in North Central. The share of employment among large employers in the region was well below the statewide share of 49.4%.

### **Industry Employment and Wage Trends**

- Between the third quarters of 2008 and 2009, the number of jobs in the North Central Workforce Area decreased by -1,870 or -2.3%. During the same period, the Massachusetts economy lost -6,044 jobs, a decrease of -0.2%.
- Within the North Central Workforce Area, Manufacturing played a more significant role relative to the entire Massachusetts economy. While Manufacturing represents 8.8% of total jobs in Massachusetts, it accounted for nearly one in five (18.6%) jobs in all of North Central. Between the third quarters of 2008 and 2009, Manufacturing lost -887 jobs or -5.9%. The state showed a modest decline of -265 (-0.1%) during the same period.
- Another major industry sector in North Central is the Health Care and Social Assistance sector which saw no job gain between the third quarters 2008 and 2009. Conversely, Retail Trade lost -413 jobs or -3.8%.
- Other sectors experiencing major job losses included Construction (-580, -14.9%), Professional and Business Services (-178, -2.7%), and Arts, Entertainment and Recreation (-264, -15.6%).
- The 2008 annual average wage in North Central was \$40,707 which was below the statewide figure of \$56,759 by \$16,052. The annual average wage for five sectors exceeded the overall average in North Central including Professional, Scientific and Technical Services (\$60,481), Manufacturing (\$56,433), Information (\$50,651), Construction (\$50,244), and Finance and Insurance (\$48,775).
- Three sectors that account for a significant number of jobs had annual average wages that were well below the average for North Central, including Accommodation and Food Services (\$14,245), Retail Trade (\$24,752), and Administrative and Support Services (\$23,088). In addition, Health Care and Social Assistance had an annual average wage (\$39,316) that was slightly lower than the North Central average of \$40,707.

### **Massachusetts Industry and Occupational Projections 2006-2016**

- The Massachusetts economy is expected to generate 216,650 net new jobs between 2006 and 2016, an increase of 6.3%. An additional 768,330 job openings will result from the need to replace workers who retire, change industries or change occupations. In total, nearly one million jobs will need to be filled by 2016.

## Summary of Trends in the North Central Workforce Area

- The two fastest growing industry sectors, Professional, Technical, and Business Services (+18.1%) and Health and Educational Services (+16.8%) will also add the most jobs, expanding by 85,400 and 102,020 jobs respectively, and together will represent more than 86 percent of all net new jobs. Health Care alone will account for 64,630 jobs during the projection period. The third fastest growth is expected in Leisure and Hospitality (+9.2%), which is projected to add 27,160 jobs.
- On a more detailed basis, eight industries are expected to increase by more than 10,000 jobs. These include Private Hospitals (+23,530), Management and Technical Consulting (+19,100), Computer Systems Design (+17,600), Food Services and Drinking Places (+16,450), Individual and Family Services (+12,870), Residential Care Facilities (+11,320), Offices of Health Practitioners (+10,510), and Colleges and Universities (+10,300). Collectively, these eight industries account for nearly 121,680 or 56.2% of the 216,650 projected net new jobs.
- Among the 30 fastest growing occupations, 13 are in either Health Care or Information Technology. In terms of education and training, 23 of these fast growing occupations require at least an Associate's Degree. The top five fastest growing occupations include Network Systems Analysts (+50%), Personal and Home Care Aides (+36%), Computer Applications Engineers (+35%), Home Health Aides (+34%), and Veterinary Technologists and Technicians (+33%).
- Twenty occupations will account for more than half the net new jobs created through 2016. Many are large occupations concentrated in industries such as Retail Trade and Hospitality. The five occupations generating the most new jobs are expected to include Registered Nurses (+16,110), Customer Service Representatives (+8,390), Computer Software Applications Engineers (+8,260), Combined Food Preparation and Serving Workers (+7,760), and Home Health Aides (+5,820).
- While the focus is often on new job growth, it is important to remember that most job openings will be the result of replacement demand and not growth. In fact, 78% of the nearly one million projected net new job openings statewide will occur because of replacement associated with retirement, labor force withdrawal, and occupational changes. For example, total projected net new openings for Registered Nurses are expected to be 29,050, with 12,940 replacement jobs and 16,110 new jobs. Replacement needs tend to be greatest in occupations with high proportions of workers nearing retirement (teachers, machinists) or occupations with large concentrations of young and part-time workers (waiters and waitresses, retail salespersons).
- Education and training will play an increasingly prominent role for both current and future job seekers. More than half (60%) of all new jobs related to growth will require an Associate's Degree or higher. While a Bachelor's Degree may be preferable, it is important to recognize that some form of post-secondary education will be essential for those seeking a rewarding career path with good pay and upward mobility.

### **Population Estimates 2000-2009**

- Between the April 2000 Census and July 2009, the total population in the North Central Workforce Area grew by 15,835, an increase of 6.6%. North Central had the third fastest rate of population growth among the 16 Workforce Areas, trailing Boston (9.5%) and Central Massachusetts (7.4%).

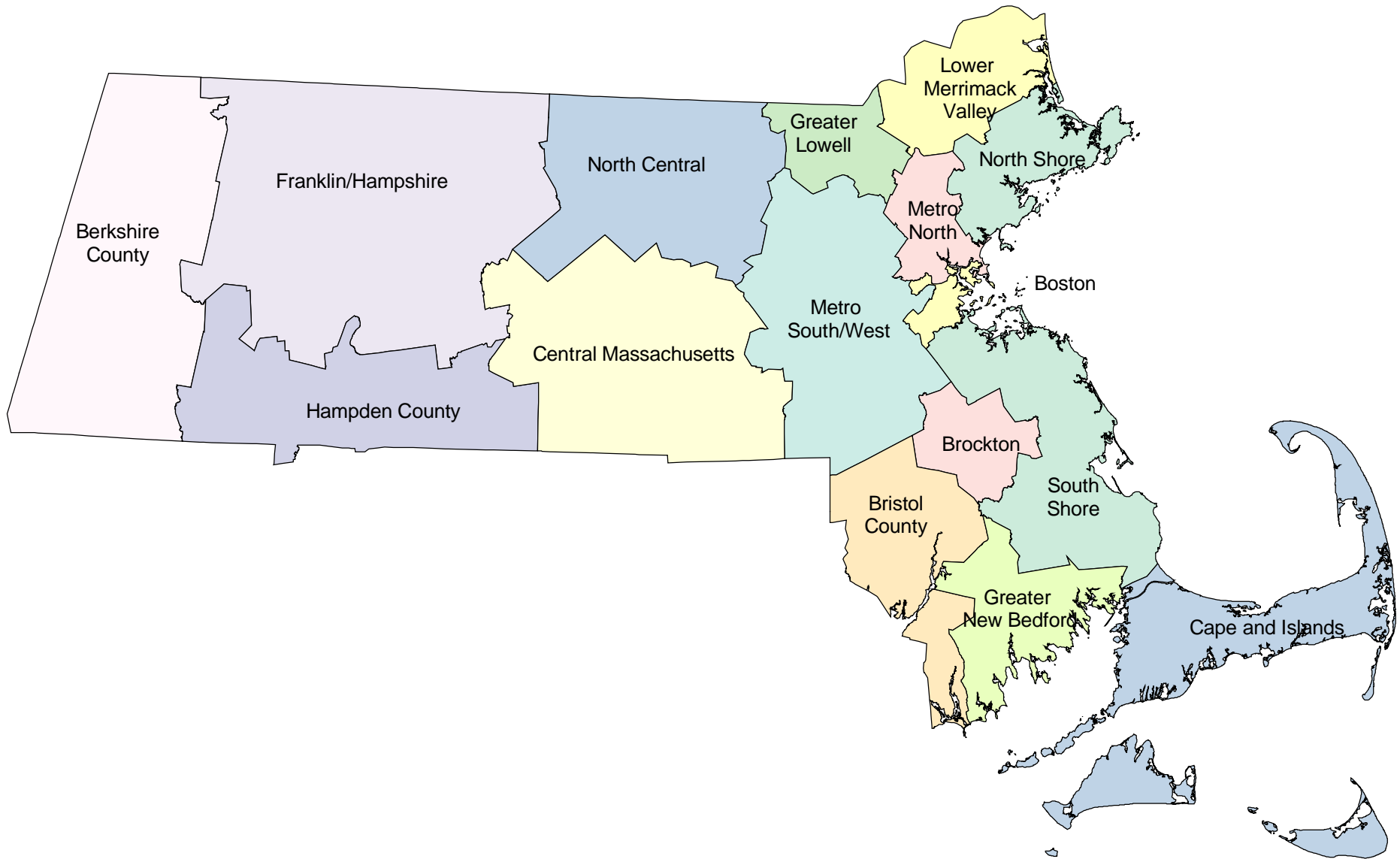
## Summary of Trends in the North Central Workforce Area

- Among the 30 largest cities and towns in Massachusetts, Leominster the state's 30<sup>th</sup> largest city, experienced a marginal population increase (960 or 2.3%), while Fitchburg, registered a population increase 3,125. As of July 2009, the Leominster population stood at 42,293 and the Fitchburg population at 42,161.
- An important component of Worcester County's population growth was net migration which contributed 15,187 new residents between April 2000 and July 2009. This was the result of a net increase in international migration (22,562) partially offset by net migration to other states or communities in Massachusetts (-7,375). It should be noted that Worcester County includes cities and towns in both the Central Massachusetts and North Central Workforce Areas.
- As a result of daytime population changes due to commuting, the North Central Workforce Area had a very large daily net outflow of 25,365 workers at the time of the 2000 Census. This resulted from the difference between 115,216 employed residents as compared to 89,851 workers employed by North Central business firms.

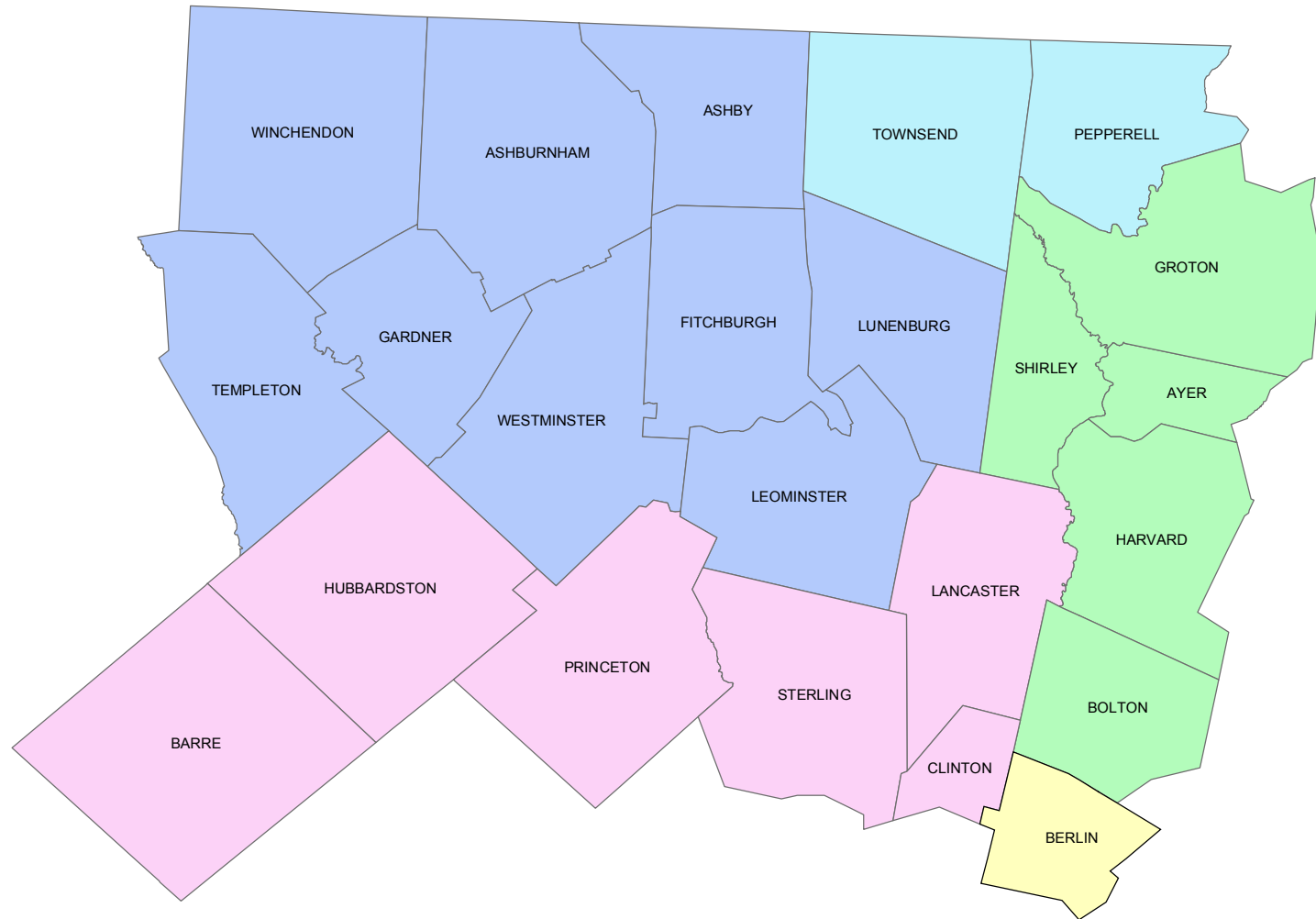
### **Massachusetts and U.S. Wages by Occupational Group**






- According to the most recent wage survey conducted in May 2009 the mean Massachusetts wage for all occupations was \$52,710. The average Massachusetts wage exceeded the average U.S. wage of \$43,460 by \$9,250 or 21.3%.
- Massachusetts wages were larger than their U.S. counterparts in all 22 occupational groups for which wage information was collected. The top three occupational categories in Massachusetts were Management (\$117,640), Legal (\$99,920), and Computer and Mathematics (\$88,610).
- In addition to the three occupational groups noted above, there were four other occupational groups in Massachusetts that exceeded an average wage of \$70,000. These categories included Architecture and Engineering (\$80,470), Healthcare Practitioners (\$78,390), Business and Financial (\$76,990), and Life, Physical, and Social Science (\$74,710).
- On the opposite end of the wage scale, the three occupational categories with the lowest average wages in Massachusetts were all below \$30,000. These groups included, Personal Care and Service (\$29,070), Farming, Fishing, and Forestry (\$28,600), and, the category with the lowest average wage, Food Preparation and Serving (\$25,110).

# Massachusetts 16 Workforce Areas



# The North Central Workforce Area comprises 23 cities and towns in the following 5 NECTAs



-  Boston-Cambridge-Quincy, MA NECTA Div.
-  Framingham, MA NECTA Div.
-  Leominster-Fitchburg-Gardner, MA Metro NECTA
-  Nashua, NH-MA NECTA Div.
-  Worcester, MA-CT Metropolitan NECTA

## North Central Workforce Area

Title	2000-Based LMA	Type	1990-Based LMA	Type	County
Ashburnham Town, MA	Leominster-Fitchburg-Gardner, MA Metropolitan NECTA	Metro	Fitchburg-Leominster, MA	PMSA	Worcester County
Ashby Town, MA	Leominster-Fitchburg-Gardner, MA Metropolitan NECTA	Metro	Fitchburg-Leominster, MA	PMSA	Middlesex County
Ayer Town, MA	Boston-Cambridge-Quincy, MA NECTA Division	Division	Boston, MA-NH	PMSA	Middlesex County
Barre Town, MA	Worcester, MA-CT Metropolitan NECTA	Metro	Worcester, MA-CT	PMSA	Worcester County
Berlin Town, MA	Framingham, MA NECTA Division	Division	Boston, MA-NH	PMSA	Worcester County
Bolton Town, MA	Boston-Cambridge-Quincy, MA NECTA Division	Division	Boston, MA-NH	PMSA	Worcester County
Clinton Town, MA	Worcester, MA-CT Metropolitan NECTA	Metro	Worcester, MA-CT	PMSA	Worcester County
Fitchburg City, MA	Leominster-Fitchburg-Gardner, MA Metropolitan NECTA	Metro	Fitchburg-Leominster, MA	PMSA	Worcester County
Gardner City, MA	Leominster-Fitchburg-Gardner, MA Metropolitan NECTA	Metro	Fitchburg-Leominster, MA	PMSA	Worcester County
Groton Town, MA	Boston-Cambridge-Quincy, MA NECTA Division	Division	Lowell, MA-NH	PMSA	Middlesex County
Harvard Town, MA	Boston-Cambridge-Quincy, MA NECTA Division	Division	Boston, MA-NH	PMSA	Worcester County
Hubbardston Town, MA	Worcester, MA-CT Metropolitan NECTA	Metro	Athol, MA LMA	SLMA	Worcester County
Lancaster Town, MA	Worcester, MA-CT Metropolitan NECTA	Metro	Boston, MA-NH	PMSA	Worcester County
Leominster City, MA	Leominster-Fitchburg-Gardner, MA Metropolitan NECTA	Metro	Fitchburg-Leominster, MA	PMSA	Worcester County
Lunenburg Town, MA	Leominster-Fitchburg-Gardner, MA Metropolitan NECTA	Metro	Fitchburg-Leominster, MA	PMSA	Worcester County
Pepperell Town, MA	Nashua, NH-MA NECTA Division	Division	Lowell, MA-NH	PMSA	Middlesex County
Princeton Town, MA	Worcester, MA-CT Metropolitan NECTA	Metro	Worcester, MA-CT	PMSA	Worcester County
Shirley Town, MA	Boston-Cambridge-Quincy, MA NECTA Division	Division	Boston, MA-NH	PMSA	Middlesex County
Sterling Town, MA	Worcester, MA-CT Metropolitan NECTA	Metro	Worcester, MA-CT	PMSA	Worcester County
Templeton Town, MA	Leominster-Fitchburg-Gardner, MA Metropolitan NECTA	Metro	Fitchburg-Leominster, MA	PMSA	Worcester County
Townsend Town, MA	Nashua, NH-MA NECTA Division	Division	Boston, MA-NH	PMSA	Middlesex County
Westminster Town, MA	Leominster-Fitchburg-Gardner, MA Metropolitan NECTA	Metro	Fitchburg-Leominster, MA	PMSA	Worcester County
Winchendon Town, MA	Leominster-Fitchburg-Gardner, MA Metropolitan NECTA	Metro	Fitchburg-Leominster, MA	PMSA	Worcester County

## Profile of Unemployment Insurance Claimants, Massachusetts and Workforce Areas March 2010

	Total Claimants	Race					Hispanic or Latino			Gender		Weeks of Unemployment			
		White	Black	Asian	Other	INA	Yes	No	INA	Male	Female	1-2	3-4	5-14	15+
<b>Massachusetts</b>	<b>137,617</b>	<b>82.6%</b>	<b>7.4%</b>	<b>2.5%</b>	<b>0.3%</b>	<b>7.1%</b>	<b>9.8%</b>	<b>89.4%</b>	<b>0.8%</b>	<b>66.6%</b>	<b>33.4%</b>	<b>11.0%</b>	<b>8.0%</b>	<b>48.1%</b>	<b>32.9%</b>
Berkshire County	3,441	93.5%	2.8%	0.3%	0.3%	3.1%	2.6%	97.1%	0.3%	69.6%	30.4%	11.4%	8.4%	49.8%	30.3%
Boston	10,390	50.6%	30.0%	6.1%	0.4%	12.8%	17.3%	81.6%	1.1%	59.4%	40.6%	13.1%	8.9%	42.3%	35.7%
Bristol County	14,485	88.0%	4.3%	1.3%	0.2%	6.1%	7.4%	92.0%	0.5%	72.3%	27.7%	10.6%	7.9%	51.7%	29.8%
Brockton	5,466	74.1%	16.7%	1.2%	0.3%	7.7%	5.8%	93.7%	0.5%	65.8%	34.2%	11.2%	7.7%	48.0%	33.1%
Cape and Islands	8,347	88.4%	4.5%	0.5%	0.7%	6.0%	4.0%	95.3%	0.7%	59.0%	41.0%	5.2%	5.4%	52.4%	37.0%
Central Mass	12,541	88.5%	4.5%	1.6%	0.3%	5.1%	8.3%	91.1%	0.5%	67.9%	32.1%	12.0%	8.3%	46.4%	33.2%
Franklin/Hampshire	3,328	92.8%	1.4%	0.7%	0.3%	4.9%	2.6%	97.0%	0.5%	68.8%	31.2%	10.1%	7.1%	50.7%	32.1%
Greater Lowell	5,345	83.4%	2.8%	8.3%	0.3%	5.2%	7.8%	91.5%	0.7%	67.0%	33.0%	12.5%	7.9%	48.8%	30.8%
Greater New Bedford	6,023	84.5%	6.7%	0.4%	0.2%	8.1%	8.0%	91.4%	1.0%	73.0%	27.0%	10.3%	8.0%	54.3%	27.4%
Hampden County	11,219	79.7%	9.7%	0.8%	0.3%	9.5%	17.6%	81.7%	0.4%	67.2%	32.8%	10.3%	7.6%	48.9%	33.2%
Lower Merrimack Valley	10,723	84.9%	3.6%	1.2%	0.4%	10.0%	20.1%	78.9%	0.7%	71.0%	29.0%	13.1%	8.5%	46.1%	32.4%
Metro North	11,895	79.7%	7.7%	4.4%	0.4%	7.9%	12.0%	87.4%	0.6%	63.7%	36.3%	11.9%	8.8%	44.7%	34.5%
Metro South/West	10,111	86.2%	3.6%	3.2%	0.2%	6.8%	6.4%	92.9%	0.7%	65.1%	34.9%	10.8%	7.8%	46.8%	34.6%
North Central	5,917	90.3%	2.5%	1.1%	0.2%	5.9%	9.9%	85.9%	0.7%	69.5%	30.5%	11.5%	8.8%	47.9%	31.7%
North Shore	7,936	86.3%	6.0%	2.2%	0.2%	5.2%	11.0%	88.4%	0.5%	63.9%	36.1%	10.2%	8.4%	47.7%	33.7%
South Shore	10,450	85.2%	4.8%	5.0%	0.3%	4.7%	2.2%	97.3%	4.1%	65.3%	34.7%	10.8%	8.1%	48.5%	32.6%

	Average Weekly Wage						Age Group					Education Attainment*			
	<\$300	\$300- \$499	\$500- \$799	\$800- \$999	\$1,000- \$1,499	\$1,500+	Under 25	25-44	45-54	55-64	65+	Through Grade 11	H.S. Graduate	1-3 Yrs. College	4 or More College
<b>Massachusetts</b>	<b>11.9%</b>	<b>18.4%</b>	<b>26.6%</b>	<b>12.4%</b>	<b>17.8%</b>	<b>12.9%</b>	<b>9.5%</b>	<b>45.9%</b>	<b>25.0%</b>	<b>15.3%</b>	<b>4.3%</b>	<b>11.9%</b>	<b>44.2%</b>	<b>22.0%</b>	<b>22.0%</b>
Berkshire County	14.1%	26.3%	31.9%	12.4%	11.1%	4.0%	10.4%	43.6%	24.0%	16.6%	5.4%	11.2%	53.3%	21.3%	14.2%
Boston	14.0%	19.1%	26.7%	11.8%	16.1%	12.3%	10.2%	55.1%	20.9%	11.3%	2.5%	13.3%	36.2%	20.7%	29.8%
Bristol County	11.5%	18.9%	26.9%	12.4%	19.4%	10.8%	9.8%	47.4%	25.7%	13.5%	3.5%	19.9%	48.4%	19.6%	12.1%
Brockton	12.2%	19.0%	28.0%	12.0%	18.1%	10.7%	10.8%	47.1%	24.7%	13.1%	4.4%	12.1%	49.7%	23.3%	14.9%
Cape and Islands	14.3%	23.4%	30.6%	12.6%	12.9%	6.3%	9.2%	40.1%	23.6%	18.1%	8.9%	6.6%	39.8%	28.2%	25.4%
Central Mass	11.9%	18.1%	27.0%	13.1%	18.1%	11.6%	10.0%	46.1%	24.8%	15.3%	3.8%	9.5%	48.5%	22.6%	19.4%
Franklin/Hampshire	11.3%	21.5%	31.0%	12.0%	17.4%	6.8%	10.8%	42.4%	26.4%	17.0%	3.4%	7.8%	50.4%	21.9%	19.9%
Greater Lowell	9.7%	16.7%	27.2%	13.2%	18.9%	14.3%	10.2%	46.5%	25.4%	14.6%	3.2%	11.0%	48.3%	21.2%	19.6%
Greater New Bedford	15.0%	20.4%	25.6%	11.3%	17.5%	10.2%	11.2%	45.5%	24.8%	15.0%	3.6%	27.5%	45.0%	18.5%	9.0%
Hampden County	16.6%	22.9%	28.8%	11.9%	14.1%	5.8%	12.3%	47.5%	22.7%	13.9%	3.6%	17.1%	48.4%	22.9%	11.6%
Lower Merrimack Valley	10.3%	15.9%	23.5%	12.3%	19.7%	18.2%	8.5%	46.2%	27.1%	15.0%	3.2%	15.4%	43.4%	20.6%	20.6%
Metro North	9.7%	15.4%	25.6%	13.3%	19.8%	16.1%	7.3%	49.2%	24.2%	14.9%	4.5%	9.8%	39.4%	20.3%	30.5%
Metro South/West	7.1%	12.7%	22.8%	12.0%	19.4%	26.0%	6.0%	39.7%	29.1%	19.3%	5.9%	5.9%	31.9%	19.5%	42.7%
North Central	10.6%	18.7%	27.4%	13.2%	18.2%	11.8%	10.1%	43.6%	26.6%	15.9%	3.7%	10.4%	51.6%	22.5%	15.4%
North Shore	12.3%	0.0%	26.1%	12.4%	18.4%	12.6%	9.2%	43.9%	25.0%	17.1%	4.7%	8.5%	45.9%	22.8%	22.8%
South Shore	10.7%	15.5%	24.6%	12.7%	20.2%	16.4%	8.5%	43.7%	25.9%	16.8%	5.2%	5.9%	44.4%	24.8%	24.9%

\*Data based on a sample of all claimants signing for the Survey Week.

**Profile of Unemployment Insurance Claimants  
North Central Workforce Area  
March 2010**

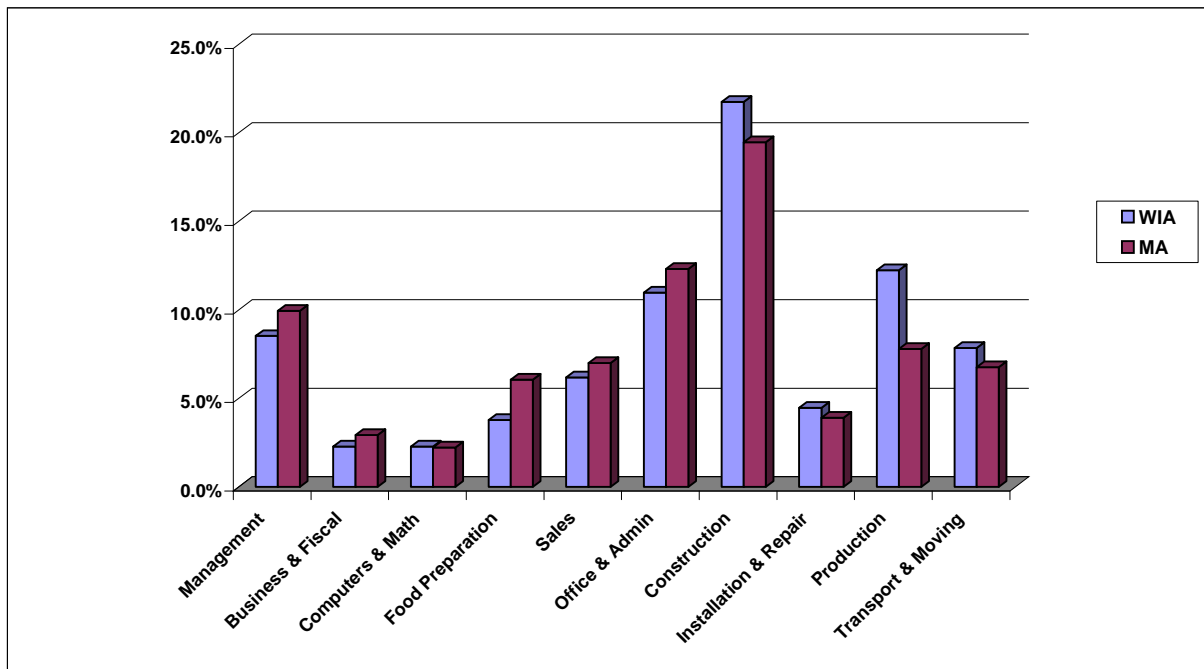
Claimants by Race	North Central March 2010		Massachusetts March 2010	
	Number	Percent	Number	Percent
Total	5,917	100.0%	137,617	100.0%
White	5,346	90.3%	113,716	82.6%
Black	148	2.5%	10,169	7.4%
Native American	8	0.1%	324	0.2%
Asian	66	1.1%	3,474	2.5%
Hawaiian & Pacific Islanders	1	0.0%	105	0.1%
INA or Unknown	348	5.9%	9,829	7.1%
<b>Claimants by Hispanic or Latino</b>				
Hispanic or Latino	588	9.9%	13,532	9.8%
Not Hispanic or Latino	5,084	85.9%	122,966	89.4%
INA	245	4.1%	1,119	0.8%
<b>Claimants by Gender</b>				
Male	4,111	69.5%	91,682	66.6%
Female	1,808	30.5%	45,948	33.4%
<b>Claimants by Length of Current Spell of Unemployment</b>				
1-2 Weeks	680	11.5%	15,158	11.0%
3-4 Weeks	523	8.8%	11,053	8.0%
5-14 Weeks	2,838	47.9%	66,159	48.1%
15+ Weeks	1,878	31.7%	45,263	32.9%
<b>Claimants by Average Weekly Wage</b>				
Under \$300	626	10.6%	16,321	11.9%
\$300 - \$499	1,109	18.7%	25,294	18.4%
\$500 - \$799	1,623	27.4%	36,636	26.6%
\$800 - \$999	783	13.2%	17,123	12.4%
\$1,000 - \$1,499	1,078	18.2%	24,518	17.8%
\$1,500 and Over	697	11.8%	17,714	12.9%
<b>Claimants by Age Group</b>				
Under Age 22	216	3.6%	4,563	3.3%
22 -24	383	6.5%	8,451	6.1%
25 - 34	1,242	21.0%	31,523	22.9%
35 - 44	1,340	22.6%	31,701	23.0%
45 -54	1,577	26.6%	34,417	25.0%
55 - 59	541	9.1%	12,288	8.9%
60 - 64	399	6.7%	8,765	6.4%
Over Age 64	221	3.7%	5,922	4.3%
<b>Claimants by Level of Educational Attainment</b>				
Through Grade 8	84	1.6%	4,097	3.6%
9th to 11th Grade	451	8.8%	9,256	8.2%
High School Graduate	2,657	51.6%	49,788	44.2%
1-3 Years of College	1,159	22.5%	24,708	22.0%
4 or More Years of College	794	15.4%	24,710	22.0%

Prepared by Massachusetts Department of Workforce Development  
Economic Analysis Office

Source: Profile of Massachusetts Unemployment Claimants

## Profile of Unemployment Insurance Claimants North Central (Continued)

Claimants by Standard Occupational Classification (SOC)	North Central March 2010		Massachusetts March 2010	
	Number	Percent	Number	Percent
Total	5,919	100.0%	137,633	100.0%
Management (SOC 11)	504	8.5%	13,666	9.9%
Business & Fiscal Operations (SOC 13)	134	2.3%	4,029	2.9%
Computer & Mathematics (SOC 15)	134	2.3%	3,053	2.2%
Architecture & Engineering (SOC 17)	151	2.6%	2,923	2.1%
Life, Physical & Social Sciences (SOC 19)	38	0.6%	962	0.7%
Community & Social Services (SOC 21)	46	0.8%	1,342	1.0%
Legal Occupations (SOC 23)	36	0.6%	740	0.5%
Education, Training & Library (SOC 25)	84	1.4%	1,856	1.3%
Arts, Design, Entertainment, Sports & Media (SOC 27)	82	1.4%	2,553	1.9%
Health Practitioners & Technical (SOC 29)	119	2.0%	2,386	1.7%
Healthcare Support (SOC 31)	93	1.6%	2,598	1.9%
Protective Services (SOC 33)	46	0.8%	1,222	0.9%
Food Preparation & Serving (SOC 35)	223	3.8%	8,322	6.0%
Building & Grounds Cleaning & Maintenance (SOC 37)	338	5.7%	9,162	6.7%
Personal Care & Service (SOC 39)	96	1.6%	2,822	2.1%
Sales & Related (SOC 41)	365	6.2%	9,610	7.0%
Office & Administrative Support (SOC 43)	649	11.0%	16,936	12.3%
Farming, Fishing, Forestry (SOC 45)	40	0.7%	1,128	0.8%
Construction and Extraction (SOC 47)	1,287	21.7%	26,774	19.5%
Installation, Maintenance, Repair (SOC 49)	264	4.5%	5,358	3.9%
Production Occupations (SOC 51)	724	12.2%	10,710	7.8%
Transportation & Material Moving (SOC 53)	464	7.8%	9,287	6.7%
INA or SOC Code Unknown	-	0.0%	46	0.0%

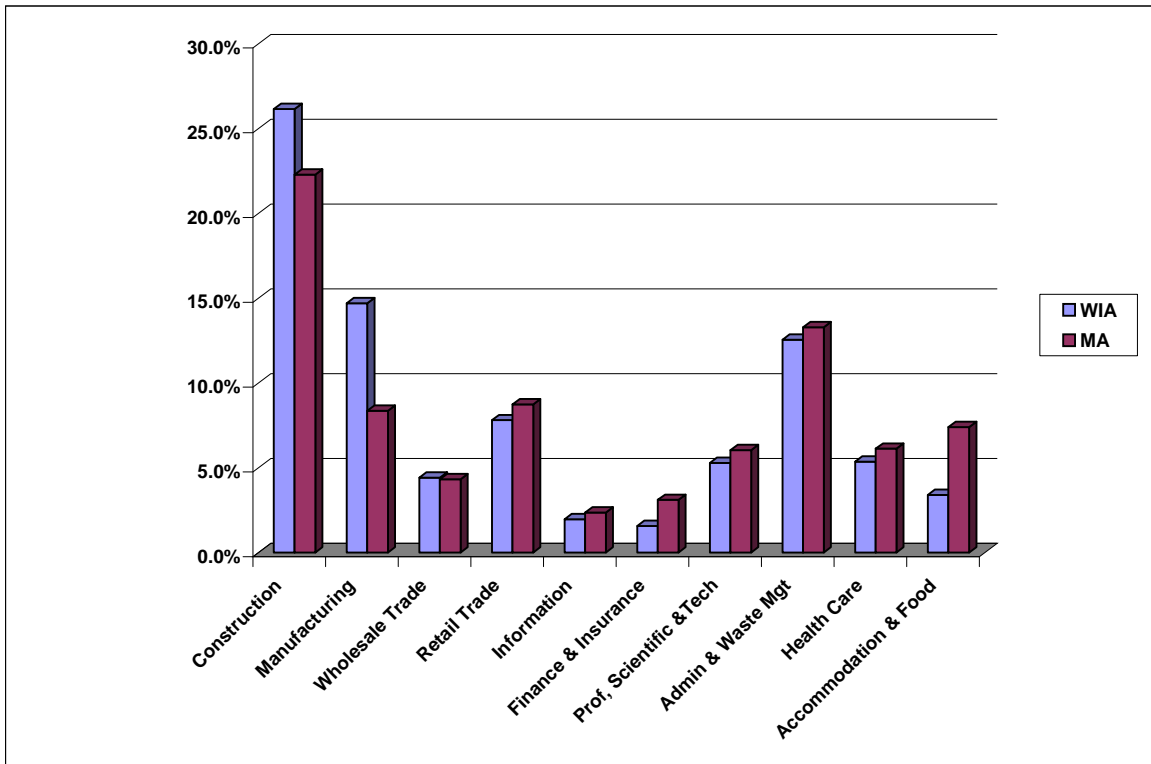


Prepared by Massachusetts Department of Workforce Development  
Economic Analysis Office

Source: Profile of Massachusetts Unemployment Claimants

## Profile of Unemployment Insurance Claimants North Central (Continued)

Claimants by NAICS Industry Classification	North Central March 2010		Massachusetts March 2010	
	Number	Percent	Number	Percent
Total (does not include partially-unemployed claimants)	5,366	100.0%	124,314	100.0%
Agriculture, Forestry, Fishing, Hunting (NAICS 11)	32	0.6%	1,057	0.9%
Mining (NAICS 21)	33	0.6%	380	0.3%
Utilities (NAICS 22)	4	0.1%	131	0.1%
Construction (NAICS 23)	1,404	26.2%	27,727	22.3%
Manufacturing (NAICS 31-33)	789	14.7%	10,402	8.4%
Wholesale Trade (NAICS 42)	237	4.4%	5,376	4.3%
Retail Trade (NAICS 44-45)	419	7.8%	10,864	8.7%
Transportation and Warehousing (NAICS 48-49)	144	2.7%	3,303	2.7%
Information (NAICS 51)	105	2.0%	2,933	2.4%
Finance and Insurance (NAICS 52)	84	1.6%	3,862	3.1%
Real Estate and Rental Leasing (NAICS 53)	55	1.0%	1,875	1.5%
Professional, Scientific and Technical Services (NAICS 54)	284	5.3%	7,515	6.0%
Management of Companies and Enterprises (NAICS 55)	18	0.3%	414	0.3%
Admin. & Support & Waste Mgt. & Redemption Serv. (NAICS 56)	674	12.6%	16,526	13.3%
Educational Services (NAICS 61)	72	1.3%	1,514	1.2%
Health Care and Social Assistance (NAICS 62)	288	5.4%	7,617	6.1%
Arts, Entertainment and Recreation (NAICS 71)	184	3.4%	3,671	3.0%
Accommodation and Food Services (NAICS 72)	182	3.4%	9,204	7.4%
Other Services (Except Public Administration) (NAICS 81)	136	2.5%	4,555	3.7%
Public Administration (NAICS 92)	83	1.5%	1,893	1.5%
INA (No NAICS Code)	139	2.6%	3,495	2.8%



Prepared by Massachusetts Department of Workforce Development  
Economic Analysis Office

Source: Profile of Massachusetts Unemployment Claimants

# Ncdqt 'Hqt eg'Gwlo cvgu'd{ 'Y qt mhqt eg'Ct gc

3w'S wct vgt '4232

<i>Ct gc</i>	<i>Ncdqt 'Hqt eg</i>	<i>Go r r{gf</i>	<i>Wpgo r r{gf</i>	<i>3w'S v '4232'' Wpgo r 'Tcvg</i>	<i>3w'S v '422; '' Wpgo r 'Tcvg</i>
<b>Massachusetts</b>	<b>3,463,467</b>	<b>3,121,333</b>	<b>342,133</b>	<b>9.9%</b>	<b>8.2%</b>
Berkshire County	72,579	65,295	7,284	10.0%	8.5%
Boston	311,630	284,539	27,090	8.7%	7.3%
Bristol County	200,664	174,755	25,909	12.9%	11.3%
Brockton	126,168	112,523	13,645	10.8%	8.9%
Cape and Islands	133,533	115,982	17,552	13.1%	11.2%
Central Mass	291,669	261,730	29,939	10.3%	8.4%
Franklin/Hampshire	134,887	123,465	11,422	8.5%	6.8%
Greater Lowell	148,254	133,045	15,209	10.3%	8.6%
Greater New Bedford	108,518	93,346	15,173	14.0%	11.9%
Hampden County	226,427	199,221	27,207	12.0%	9.7%
Lower Merrimack Valley	166,450	147,449	19,001	11.4%	9.6%
Metro North	422,611	389,289	33,322	7.9%	6.5%
Metro South/West	488,527	452,920	35,606	7.3%	6.1%
North Central	127,711	113,190	14,521	11.4%	9.4%
North Shore	217,838	196,804	21,033	9.7%	8.1%
South Shore	285,995	257,776	28,219	9.9%	7.9%

Note: Data is not seasonally adjusted.

Prepared by Massachusetts Department of Workforce Development  
Economic Analysis Office

Source: Local Area Unemployment Statistics (LAUS) April 2010

# *Labor Force Estimates by City And Town*

*1st Quarter 2010*

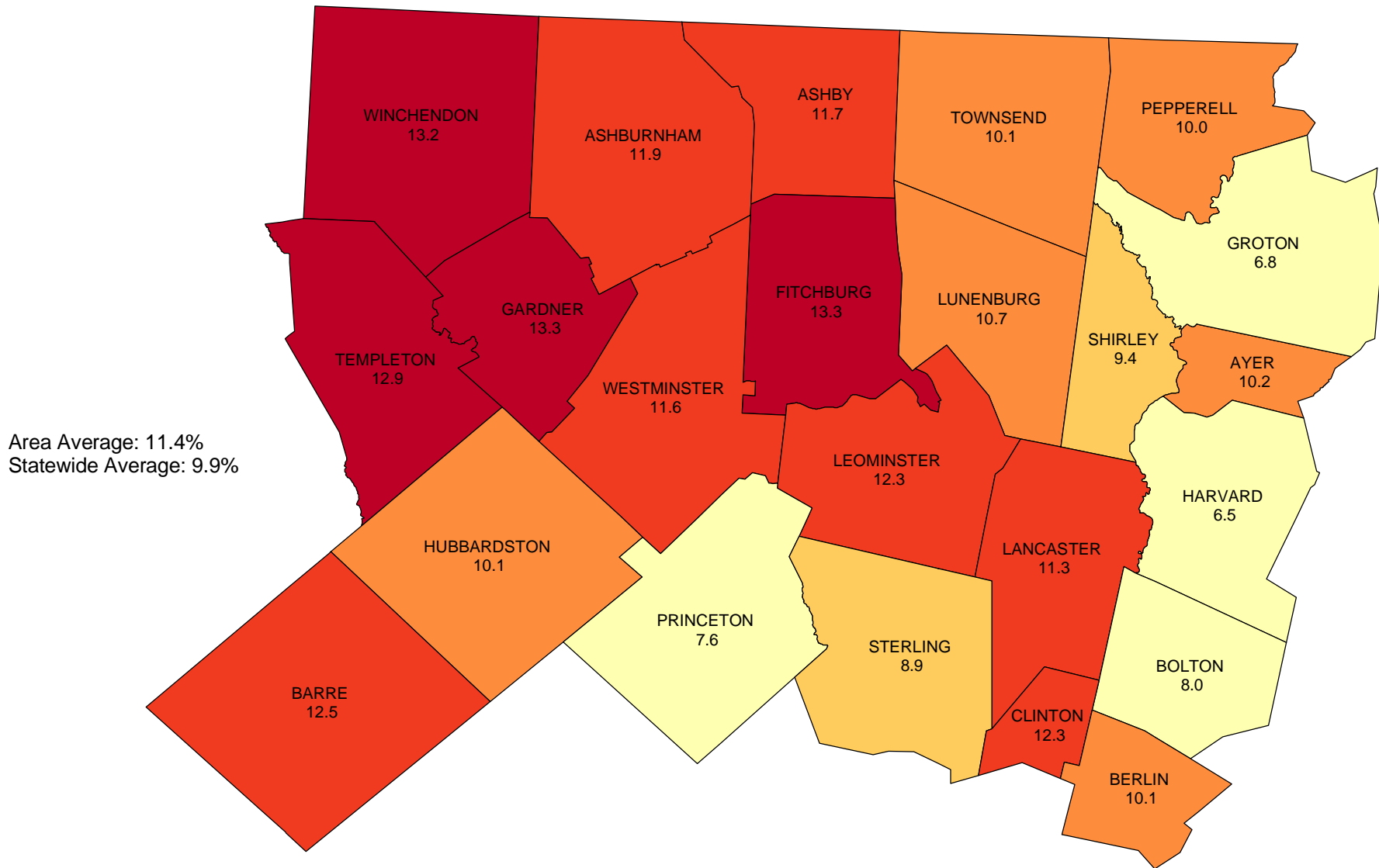
<i>Area</i>	<i>Labor Force</i>	<i>Employed</i>	<i>Unemployed</i>	<i>1st Qtr 2010 Unemp Rate</i>	<i>1st Qtr 2009 Unemp Rate</i>
<b>Massachusetts</b>	<b>3,463,467</b>	<b>3,121,333</b>	<b>342,133</b>	<b>9.9%</b>	<b>8.2%</b>
<b>North Central Workforce Area</b>	<b>127,711</b>	<b>113,190</b>	<b>14,521</b>	<b>11.4%</b>	<b>9.4%</b>
Ashburnham	3,164	2,789	375	11.9%	9.1%
Ashby	1,595	1,409	186	11.7%	9.3%
Ayer	4,312	3,871	441	10.2%	7.6%
Barre	2,864	2,505	359	12.5%	10.4%
Berlin	1,660	1,492	168	10.1%	8.0%
Bolton	2,619	2,410	209	8.0%	5.8%
Clinton	7,718	6,770	948	12.3%	10.2%
Fitchburg	18,755	16,257	2,498	13.3%	11.2%
Gardner	9,953	8,628	1,325	13.3%	11.8%
Groton	5,595	5,214	381	6.8%	6.0%
Harvard	2,877	2,689	188	6.5%	5.4%
Hubbardston	2,542	2,286	256	10.1%	9.4%
Lancaster	3,197	2,835	362	11.3%	9.1%
Leominster	20,654	18,108	2,547	12.3%	9.7%
Lunenburg	5,305	4,739	567	10.7%	9.2%
Pepperell	6,541	5,891	651	9.9%	7.3%
Princeton	1,929	1,782	146	7.6%	6.5%
Shirley	3,753	3,400	353	9.4%	8.9%
Sterling	4,509	4,107	402	8.9%	7.3%
Templeton	3,917	3,410	507	12.9%	11.4%
Townsend	5,394	4,849	545	10.1%	7.6%
Westminster	3,890	3,440	450	11.6%	8.8%
Winchendon	4,966	4,309	657	13.2%	11.2%

Note: Data is not seasonally adjusted.

Prepared by Massachusetts Department of Workforce Development  
Economic Analysis Office

Source: Local Area Unemployment Statistics (LAUS) April 2010

# 1st Quarter 2010 Unemployment Rates in the North Central Workforce Area



**Distribution of Establishments and Employment by Size Group  
North Central Workforce Investment Area and Massachusetts  
March 2009**

Size Group	# Establishments North Central Mass	Share of All Establishments	# Establishments State	Share of All Establishments
0 to 19	5,379	87.6%	186,082	87.7%
20 to 99	622	10.1%	21,316	10.0%
100 to 499	128	2.1%	4,287	2.0%
500+	11	0.2%	578	0.3%
<b>Total</b>	<b>6,140</b>	<b>100.0%</b>	<b>212,263</b>	<b>100.0%</b>

Size Group	# Employees North Central Mass	Share of All Employees	# Employees State	Share of All Employees
0 to 19	21,566	27.3%	715,532	23.0%
20 to 99	24,589	31.1%	855,011	27.5%
100 to 499	23,722	30.0%	813,548	26.2%
500+	9,211	11.6%	721,548	23.2%
<b>Total</b>	<b>79,088</b>	<b>100.0%</b>	<b>3,105,639</b>	<b>100.0%</b>

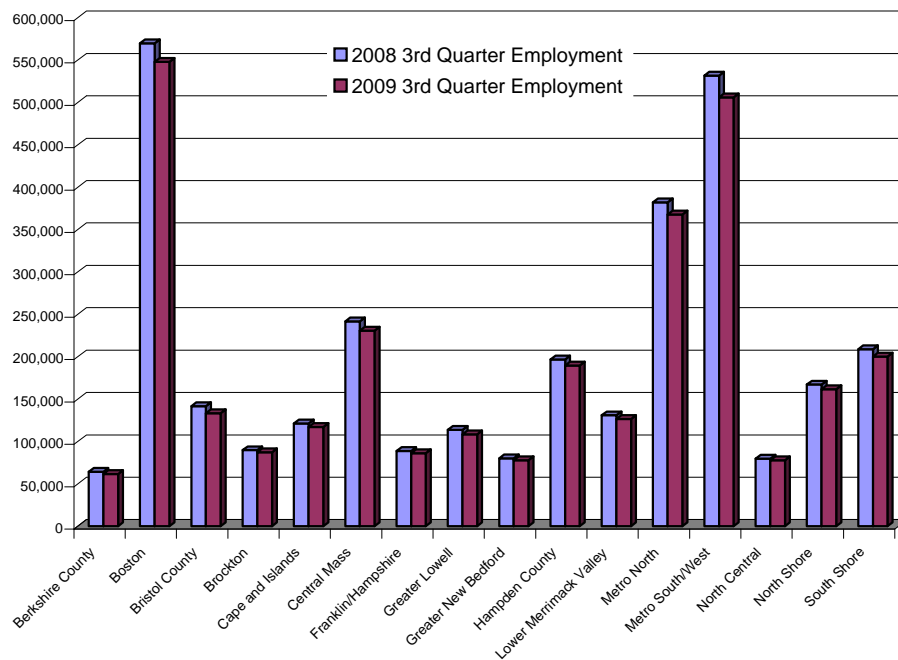
Prepared by Massachusetts Department of Workforce Development  
Economic Analysis Office

Source: Quarterly Census of Employment and Wages (ES-202)

## Total Employment for Massachusetts and Workforce Areas 3rd Quarter 2008 vs. 2009

Sector	2008 3rd Quarter Employment	2009 3rd Quarter Employment	Yr/Yr Employment Change	Yr/Yr Employment % Change
<b>Massachusetts</b>	<b>3,251,799</b>	<b>3,245,755</b>	<b>-6,044</b>	<b>-0.2%</b>
Berkshire County	64,136	61,567	-2,569	-4.0%
Boston	569,771	548,067	-21,704	-3.8%
Bristol County	141,804	133,503	-8,301	-5.9%
Brockton	89,744	87,260	-2,484	-2.8%
Cape and Islands	121,177	117,272	-3,905	-3.2%
Central Mass	241,841	230,907	-10,934	-4.5%
Franklin/Hampshire	88,806	86,067	-2,739	-3.1%
Greater Lowell	113,719	108,397	-5,322	-4.7%
Greater New Bedford	80,164	77,805	-2,359	-2.9%
Hampden County	196,868	189,522	-7,346	-3.7%
Lower Merrimack Valley	130,885	126,654	-4,231	-3.2%
Metro North	382,166	367,887	-14,279	-3.7%
Metro South/West	531,695	505,904	-25,791	-4.9%
North Central	79,759	77,889	-1,870	-2.3%
North Shore	167,148	161,563	-5,585	-3.3%
South Shore	208,992	200,097	-8,895	-4.3%

## Total Employment Massachusetts and Workforce Areas 3rd Qtr 2008 vs 2009



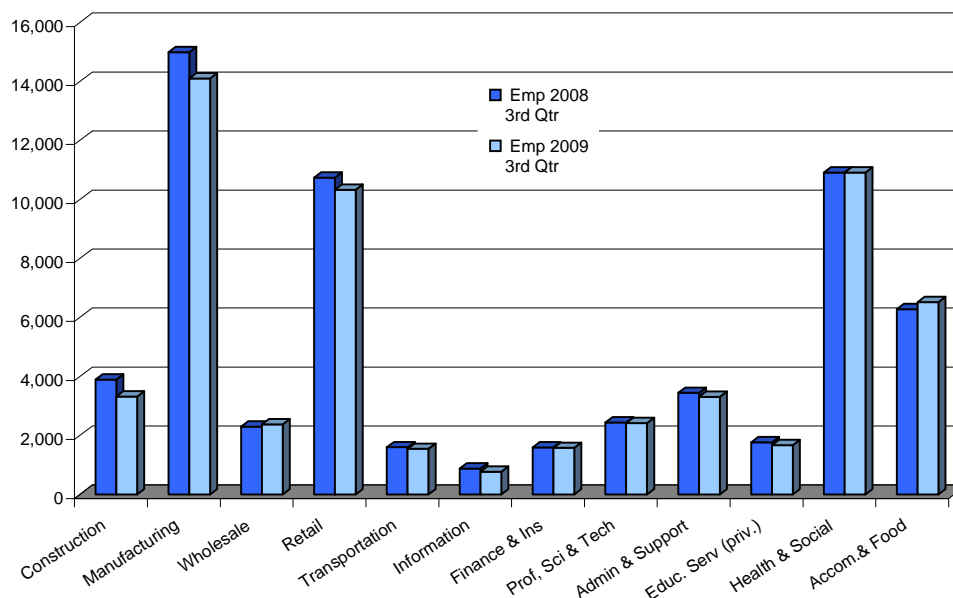
Prepared by Massachusetts Department of Workforce Development  
Economic Analysis Office

Source: Quarterly Census of Employment and Wages (ES0-202)

## North Central Workforce Area Employment by Industry (NAICS) 3rd Quarter 2008 vs. 2009

Sector	Sector Title	2008 3rd Quarter Employment	2009 3rd Quarter Employment	Yr/Yr Employment Change	Yr/Yr Employment % Change
	<b>Total Employment</b>	<b>79,759</b>	<b>77,889</b>	<b>-1,870</b>	<b>-2.3%</b>
	<b>Private Sector</b>	<b>67,049</b>	<b>64,809</b>	<b>-2,240</b>	<b>-3.3%</b>
	<b>Goods-Producing</b>	<b>19,337</b>	<b>17,867</b>	<b>-1,470</b>	<b>-7.6%</b>
11	<b>Natural Resources</b>	<b>382</b>	<b>379</b>	<b>-3</b>	<b>-0.8%</b>
21	<b>Mining</b>	<b>67</b>	<b>68</b>	<b>1</b>	<b>1.5%</b>
23	<b>Construction</b>	<b>3,895</b>	<b>3,315</b>	<b>-580</b>	<b>-14.9%</b>
31-33	<b>Manufacturing</b>	<b>14,992</b>	<b>14,105</b>	<b>-887</b>	<b>-5.9%</b>
	DUR - Durable Goods Manufacturing	6,647	6,450	-197	-3.0%
	NONDUR - Non-Durable Goods Manufacturing	8,346	7,655	-691	-8.3%
	<b>Service-Providing</b>	<b>47,712</b>	<b>46,943</b>	<b>-769</b>	<b>-1.6%</b>
	<b>Trade, Transportation &amp; Utilities</b>	<b>14,830</b>	<b>14,438</b>	<b>-392</b>	<b>-2.6%</b>
22	Utilities	192	191	-1	-0.5%
42	Wholesale Trade	2,298	2,374	76	3.3%
44-45	Retail Trade	10,740	10,327	-413	-3.8%
48-49	Transportation & Warehousing	1,600	1,546	-54	-3.4%
	<b>Information</b>	<b>874</b>	<b>768</b>	<b>-106</b>	<b>-12.1%</b>
51	Information, Production, & Dissemination	874	768	-106	-12.1%
	<b>Financial Activities</b>	<b>2,344</b>	<b>2,308</b>	<b>-36</b>	<b>-1.5%</b>
52	Finance & Insurance	1,594	1,578	-16	-1.0%
53	Real Estate & Rental and Leasing	749	730	-19	-2.5%
	<b>Professional &amp; Business Services</b>	<b>6,698</b>	<b>6,520</b>	<b>-178</b>	<b>-2.7%</b>
54	Professional, Scientific, & Technical Services	2,441	2,420	-21	-0.9%
55	Headquarters, Regional Offices & Subsidiaries	813	788	-25	-3.1%
56	Admin. & Support & Waste Mgt. & Remediation Services	3,445	3,312	-133	-3.9%
	<b>Education &amp; Health</b>	<b>12,684</b>	<b>12,582</b>	<b>-102</b>	<b>-0.8%</b>
61	Educational Services	1,769	1,668	-101	-5.7%
62	Health Care & Social Assistance	10,915	10,914	-1	0.0%
	<b>Leisure &amp; Hospitality</b>	<b>7,970</b>	<b>7,949</b>	<b>-21</b>	<b>-0.3%</b>
71	Arts, Entertainment, & Recreation	1,690	1,426	-264	-15.6%
72	Accommodation & Food Services	6,280	6,523	243	3.9%
	<b>Other Services</b>	<b>2,312</b>	<b>2,378</b>	<b>66</b>	<b>2.9%</b>
81	Other Services (except Public Administration)	2,312	2,378	66	2.9%
	<b>Government</b>	<b>12,710</b>	<b>13,079</b>	<b>369</b>	<b>2.9%</b>
	Federal Government	1,239	1,202	-37	-3.0%
	State Government	3,369	3,656	287	8.5%
	Local Government	8,102	8,221	119	1.5%

### North Central Workforce Area Employment



Prepared by Massachusetts Department of Workforce Development  
Economic Analysis Office

Source: Quarterly Census of Employment and Wages (ES0-202)

C = Confidential -- Note: Large change in Employment and Wages sometimes due to code change. (\*Significant code change)

## Economic Structure of the North Central Workforce Areas by Industry (NAICS) 2008 Annual Average

Sector	Sector Title	Employment		Gross Payroll		Average Annual Wage
		Total	Percent Share	Total	Percent Share	
	<b>Total Employment</b>	<b>80,899</b>	<b>100.0%</b>	<b>\$3,293,163,281</b>	<b>100.0%</b>	<b>\$40,707</b>
	<b>Private Sector</b>	<b>66,381</b>	<b>82.1%</b>	<b>\$2,589,998,197</b>	<b>78.6%</b>	<b>\$39,017</b>
	<b>Goods-Producing</b>	<b>19,008</b>	<b>23.5%</b>	<b>\$1,040,014,816</b>	<b>31.6%</b>	<b>\$54,715</b>
11	<b>Natural Resources</b>	<b>391</b>	<b>0.5%</b>	<b>\$11,616,508</b>	<b>0.4%</b>	<b>\$29,710</b>
21	<b>Mining</b>	<b>60</b>	<b>0.1%</b>	<b>\$3,157,613</b>	<b>0.1%</b>	<b>\$52,627</b>
23	<b>Construction</b>	<b>3,581</b>	<b>4.4%</b>	<b>\$179,922,357</b>	<b>5.5%</b>	<b>\$50,244</b>
31-33	<b>Manufacturing</b>	<b>15,035</b>	<b>18.6%</b>	<b>\$848,475,951</b>	<b>25.8%</b>	<b>\$56,433</b>
	<b>Service-Providing</b>	<b>47,373</b>	<b>58.6%</b>	<b>\$1,549,983,381</b>	<b>47.1%</b>	<b>\$32,719</b>
	<b>Trade, Transportation &amp; Utilities</b>	<b>15,039</b>	<b>18.6%</b>	<b>\$471,516,942</b>	<b>14.3%</b>	<b>\$31,353</b>
22	Utilities	191	0.2%	\$16,817,232	0.5%	\$88,048
42	Wholesale Trade	2,307	2.9%	\$134,372,756	4.1%	\$58,246
44-45	Retail Trade	10,706	13.2%	\$264,992,735	8.0%	\$24,752
48-49	Transportation & Warehousing	1,834	2.3%	\$55,334,220	1.7%	\$30,171
	<b>Information</b>	<b>856</b>	<b>1.1%</b>	<b>\$43,357,163</b>	<b>1.3%</b>	<b>\$50,651</b>
51	Information, Production, & Dissemination	856	1.1%	\$43,357,163	1.3%	\$50,651
511	Publishing Industries, except Internet	267	0.3%	\$8,962,110	0.3%	\$33,566
5111	Newspapers & Periodicals	225	0.3%	\$5,914,772	0.2%	\$26,288
5112	Software Publishers	43	0.1%	\$3,047,338	0.1%	\$70,868
517	Telecommunications	452	0.6%	\$32,357,157	1.0%	\$71,587
518	ISPs, Search Portals, & Data Processing	C	C	C	C	C
	<b>Financial Activities</b>	<b>2,315</b>	<b>2.9%</b>	<b>\$106,178,249</b>	<b>3.2%</b>	<b>\$45,865</b>
52	Finance & Insurance	1,600	2.0%	\$78,040,326	2.4%	\$48,775
522	Banking & Credit Institutions	1,175	1.5%	\$53,891,531	1.6%	\$45,865
523	Securities, Commodities, & Investments	54	0.1%	\$3,718,647	0.1%	\$68,864
524	Insurance	366	0.5%	\$20,143,756	0.6%	\$55,038
53	Real Estate & Rental and Leasing	715	0.9%	\$28,137,923	0.9%	\$39,354
531	Real Estate	364	0.4%	\$13,661,452	0.4%	\$37,531
532	Rental & Leasing Services	349	0.4%	\$14,028,362	0.4%	\$40,196
	<b>Professional &amp; Business Services</b>	<b>6,543</b>	<b>8.1%</b>	<b>\$269,666,169</b>	<b>8.2%</b>	<b>\$41,214</b>
54	Professional, Scientific, & Technical Services	2,448	3.0%	\$148,057,904	4.5%	\$60,481
5411	Legal Services	266	0.3%	\$10,032,882	0.3%	\$37,718
5412	Accounting & Payroll Services	197	0.2%	\$8,352,084	0.3%	\$42,396
5413	Architectural & Engineering Services	734	0.9%	\$50,271,454	1.5%	\$68,490
5415	Computer Systems Design & Related Services	378	0.5%	\$29,142,406	0.9%	\$77,096
5416	Consulting Services	324	0.4%	\$24,138,718	0.7%	\$74,502
5417	Scientific Research & Development Serv.	C	C	C	C	C
55	Headquarters, Regional Offices & Subsidiaries	839	1.0%	\$40,885,749	1.2%	\$48,732
56	Admin. & Support & Waste Mgt. & Remediation Services	3,257	4.0%	\$80,722,517	2.5%	\$24,784
561	Administrative & Support Services	2,963	3.7%	\$68,410,291	2.1%	\$23,088
5613	Employment Services	1,834	2.3%	\$33,471,272	1.0%	\$18,250
562	Waste Management & Remediation Services	294	0.4%	\$12,312,226	0.4%	\$41,878
	<b>Education &amp; Health</b>	<b>12,730</b>	<b>15.7%</b>	<b>\$496,587,329</b>	<b>15.1%</b>	<b>\$39,009</b>
61	Educational Services	1,786	2.2%	\$66,315,292	2.0%	\$37,131
6113	Private Colleges & Universities	C	C	C	C	C
62	Health Care & Social Assistance	10,944	13.5%	\$430,272,037	13.1%	\$39,316
621	Offices of Doctors & Walk-in Clinics	3,043	3.8%	\$143,417,028	4.4%	\$47,130
622	Hospitals	2,937	3.6%	\$142,394,287	4.3%	\$48,483
623	Nursing & Residential Care Facilities	3,314	4.1%	\$100,172,939	3.0%	\$30,227
624	Social Assistance	1,650	2.0%	\$44,287,784	1.3%	\$26,841
	<b>Leisure &amp; Hospitality</b>	<b>7,619</b>	<b>9.4%</b>	<b>\$112,885,420</b>	<b>3.4%</b>	<b>\$14,816</b>
71	Arts, Entertainment, & Recreation	1,487	1.8%	\$25,537,493	0.8%	\$17,174
72	Accommodation & Food Services	6,132	7.6%	\$87,347,927	2.7%	\$14,245
721	Hotels & Motels	546	0.7%	\$9,805,830	0.3%	\$17,959
722	Eating & Drinking Places	5,586	6.9%	\$77,542,097	2.4%	\$13,882
	<b>Other Services</b>	<b>2,272</b>	<b>2.8%</b>	<b>\$49,792,108</b>	<b>1.5%</b>	<b>\$21,916</b>
81	Other Services (except Public Administration)	2,272	2.8%	\$49,792,108	1.5%	\$21,916
	<b>Government</b>	<b>14,518</b>	<b>17.9%</b>	<b>\$703,165,084</b>	<b>21.4%</b>	<b>\$48,434</b>
	Federal Government	1,374	1.7%	\$78,378,172	2.4%	\$57,044
	State Government	3,386	4.2%	\$188,400,136	5.7%	\$55,641
	Local Government	9,758	12.1%	\$436,386,776	13.3%	\$44,721

Prepared by Massachusetts Department of Workforce Development  
Economic Analysis Office

Source: Quarterly Census of Employment and Wages (ES0-202)  
C = Confidential

**Employment Shares and Location Quotients by Major Industry Sector  
U.S., Massachusetts and North Central Workforce Area  
2008 Annual Average Private Employment**

	Annual Average Employment			Percent of Total Employment			Location Quotient*	
	U.S.	Mass.	North Central	U.S.	Mass.	North Central	Mass.	North Central
<b>Total, All Industries, Private</b>	<b>114,014,680</b>	<b>2,831,460</b>	<b>66,381</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>1.00</b>	<b>1.00</b>
<b>11 - Agriculture, Forestry, Fishing and Hunting</b>	1,166,745	6,508	332	1.0%	0.2%	0.5%	0.22	2.18
<b>23 - Construction</b>	7,562,373	132,725	3,581	6.6%	4.7%	5.4%	0.71	1.15
<b>31-33 - Manufacturing</b>	13,834,745	286,458	15,035	12.1%	10.1%	22.6%	0.83	2.24
<b>Trade, Transportation and Utilities</b>	26,334,681	565,860	15,039	23.1%	20.0%	22.7%	0.87	1.13
22 - Utilities	549,560	10,030	191	0.5%	0.4%	0.3%	0.73	0.81
42 - Wholesale Trade	5,985,704	136,527	2,307	5.2%	4.8%	3.5%	0.92	0.72
44-45 - Retail Trade	15,507,891	347,873	10,706	13.6%	12.3%	16.1%	0.90	1.31
48-49 - Transportation and Warehousing	4,291,526	71,430	1,834	3.8%	2.5%	2.8%	0.67	1.10
<b>51 - Information</b>	3,028,274	89,258	856	2.7%	3.2%	1.3%	1.19	0.41
<b>Financial Activities</b>	8,144,680	221,608	2,315	7.1%	7.8%	3.5%	1.10	0.45
52 - Finance and Insurance	5,992,144	179,231	1,600	5.3%	6.3%	2.4%	1.20	0.38
53 - Real Estate and Rental and Leasing	2,152,536	42,378	715	1.9%	1.5%	1.1%	0.79	0.72
<b>Professional and Business Services</b>	17,864,146	487,754	6,543	15.7%	17.2%	9.9%	1.10	0.57
54 - Professional and Technical Services	7,631,158	258,622	2,448	6.7%	9.1%	3.7%	1.36	0.40
55 - Management of Companies and Enterprises	1,839,929	61,461	839	1.6%	2.2%	1.3%	1.35	0.58
56 - Administrative and Waste Services	8,393,060	167,671	3,257	7.4%	5.9%	4.9%	0.80	0.83
<b>Education and Health Services</b>	17,428,926	604,912	12,730	15.3%	21.4%	19.2%	1.40	0.90
61 - Educational Services, Private	2,284,111	125,681	1,786	2.0%	4.4%	2.7%	2.22	0.61
62 - Health Care and Social Assistance	15,144,814	479,231	10,944	13.3%	16.9%	16.5%	1.27	0.97
<b>Leisure and Hospitality</b>	13,327,039	306,132	7,619	11.7%	10.8%	11.5%	0.92	1.06
71 - Arts, Entertainment, and Recreation	1,953,865	49,255	1,487	1.7%	1.7%	2.2%	1.02	1.29
72 - Accommodation and Food Services	11,373,174	256,878	6,132	10.0%	9.1%	9.2%	0.91	1.02
<b>81 - Other Services, Except Public Admin</b>	4,437,318	128,977	2,272	3.9%	4.6%	3.4%	1.17	0.75

\*See narrative for an explanation of the definition, calculation, uses, and interpretation of location quotients

Prepared by Massachusetts Department of Workforce Development  
Economic Analysis Office

Source: Quarterly Census of Employment and Wages (ES-202)

## *Guide to Interpretation of Location Quotients*

### General Concept

The location quotient (LQ) is a commonly used measure intended to help analysts compare a region's level of industry concentration relative to a larger geographic unit such as the state or the nation as a whole. The larger geographic area is referred to as the "base" area or the "reference" area. Location quotients are typically developed for a state, with the U.S. as the base area, or a sub-state area (such as a labor market area or a Workforce Area), with the state as the base area. Location quotients are relatively simple to calculate and yet offer a quick and often valuable insight into a region's employment dynamics.

### Calculation of Location Quotients

The location quotient is the calculated ratio of an industry's share of total local area employment divided by the same industry's share of total base area employment. For example, to calculate a location quotient for Educational Services (NAICS Sector 61) employment in Boston, one would need the following data:

- Educational Services employment for Boston
- Total employment for Boston
- Educational Services employment for the base area (usually the state)
- Total employment for the state

The formula is as follows:

$$L:Q.= \frac{\frac{\text{Educational Services employment in Boston}}{\text{Total employment in Boston}}}{\frac{\text{Educational Services employment in MA}}{\text{Total Employment in MA}}}$$

### Interpretation of Location Quotients

A location quotient of greater than one means that the local area has a relatively higher concentration of employment in a given industry than the base area. A location quotient equal to one means that the local area has the same proportion of employment in a given industry as the base area. Location quotients of less than one mean that the area has a smaller proportion of employment in the industry than the base area. This measure can be computed at any industry level the analyst deems important. Location quotients at the aggregated two digit NAICS Sector level may mask significant activity in more detailed industries in the local area. Location quotients should also be viewed in conjunction with other factors, such as the absolute level of employment in the industry. A very high location quotient in an industry that only employs a small number of workers is probably not that significant to local planners. It is generally accepted practice to interpret location quotients of  $\geq 1.25$  as "high" and  $\leq .75$  as "low."

One should keep in mind that the location quotient is only an indicator of relative employment concentration in a given area, as compared to the larger (base) area. A high L.Q. does not necessarily mean that there will be growth in that industry. It only means that, on a relative basis, the industry is significant to the local economy. Employment growth is dependent on such factors as the current phase of the business cycle, current nature of technology, business practices, consumer tastes and preferences, demographic trends, etc.

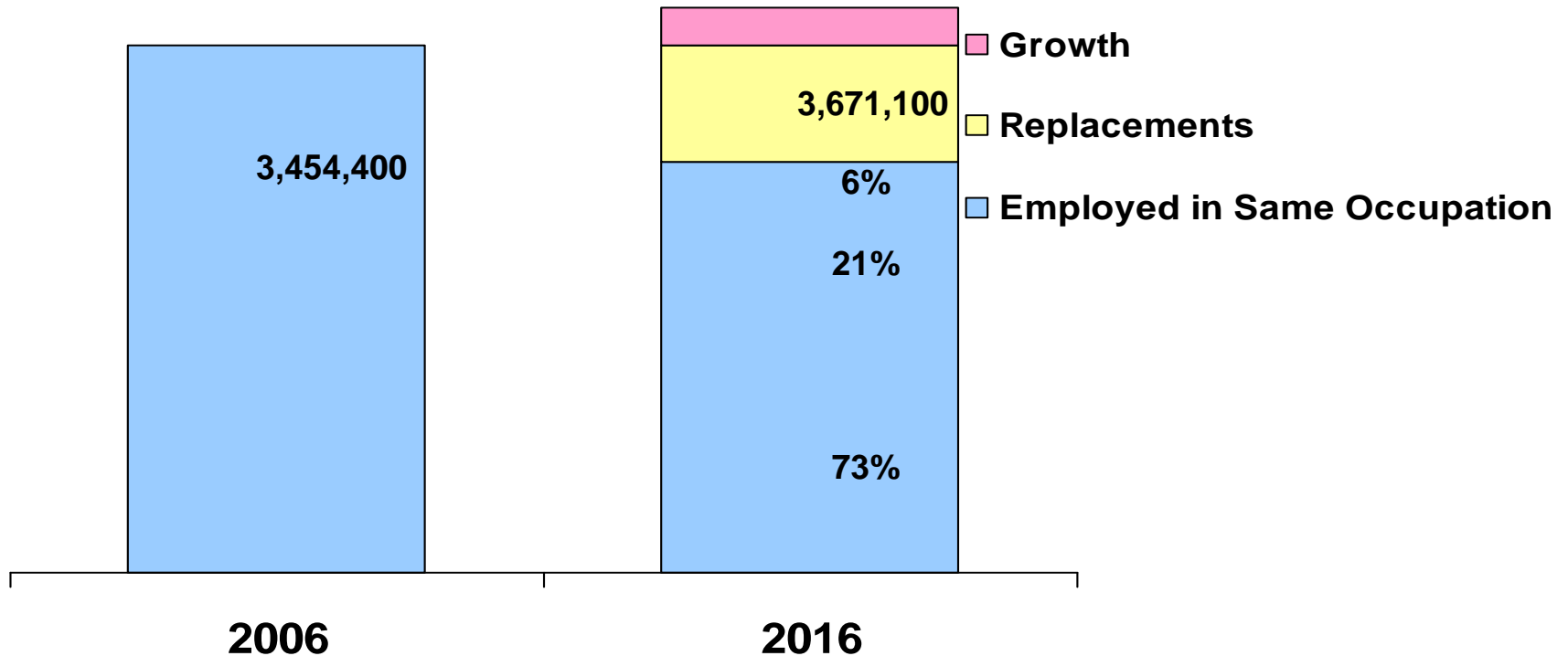
While location quotients can provide useful insights into industries where a local comparative advantage exists, they cannot, in and of themselves, provide specific policy guidance. They can help policy makers formulate further questions as to the nature of an areas comparative advantage and how to take advantage of the situation. Some possible questions are:

- 1) Is the industry dominated by a few large firms or are there many smaller firms?
- 2) What are the reasons why employers are attracted to the area and what can be done to encourage growth (or discourage an exodus) of employers?
- 3) Are there any current or forecasted trends that may make the location of employers in the region more or less desirable

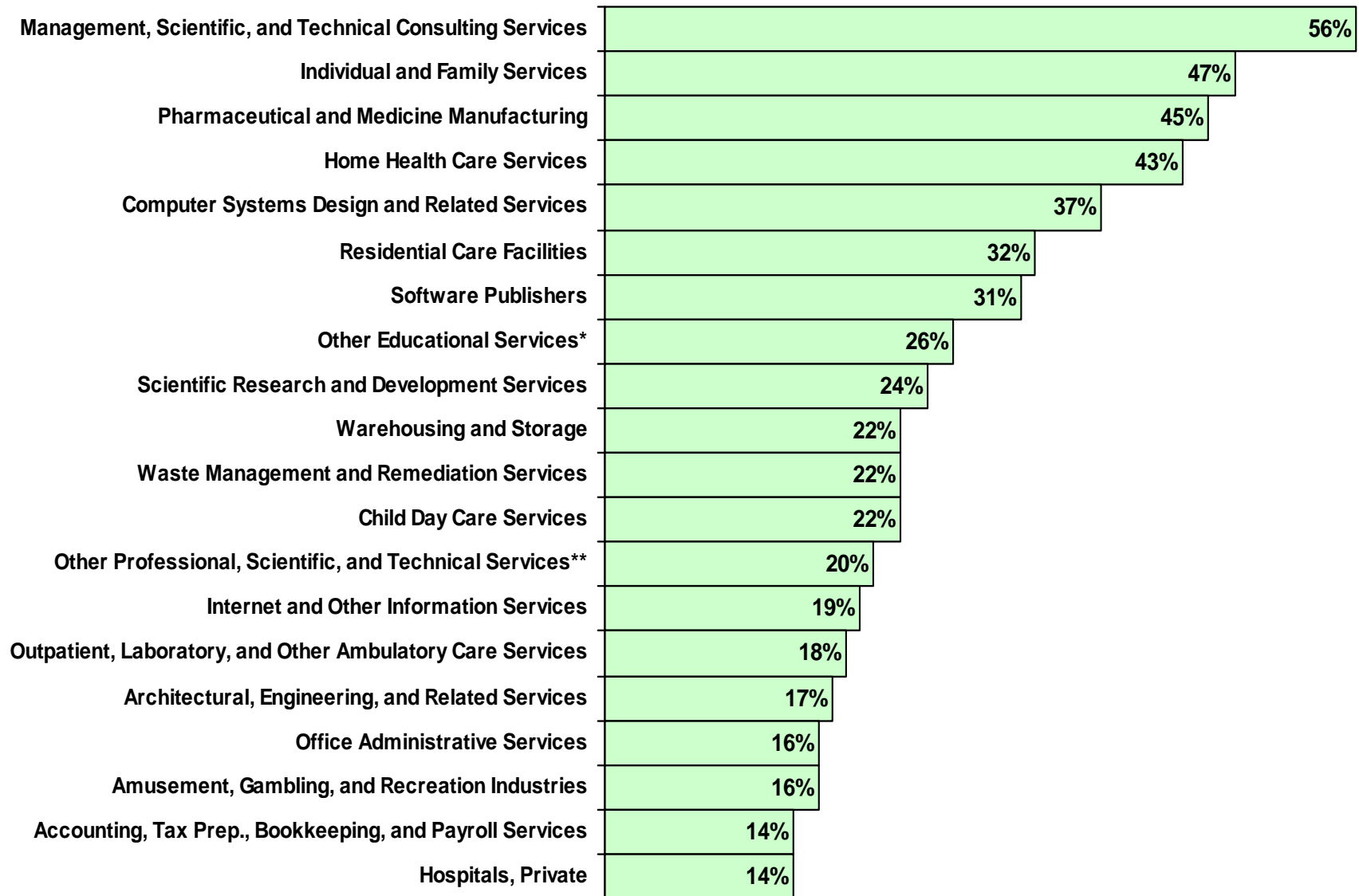
The analysis of location quotients, and other local data, is only the first step. The formulation and implementation of appropriate policy responses is the real challenge for local planners in the employment and training system.

# Total Job Openings through 2016

By 2016 the Massachusetts economy is expected to expand by approximately 6.3 percent or 216,650 new jobs. An additional 768,330 jobs should arise from the need to replace workers who retire, change careers, or advance up the career ladder. In total, nearly 1 million jobs should result.



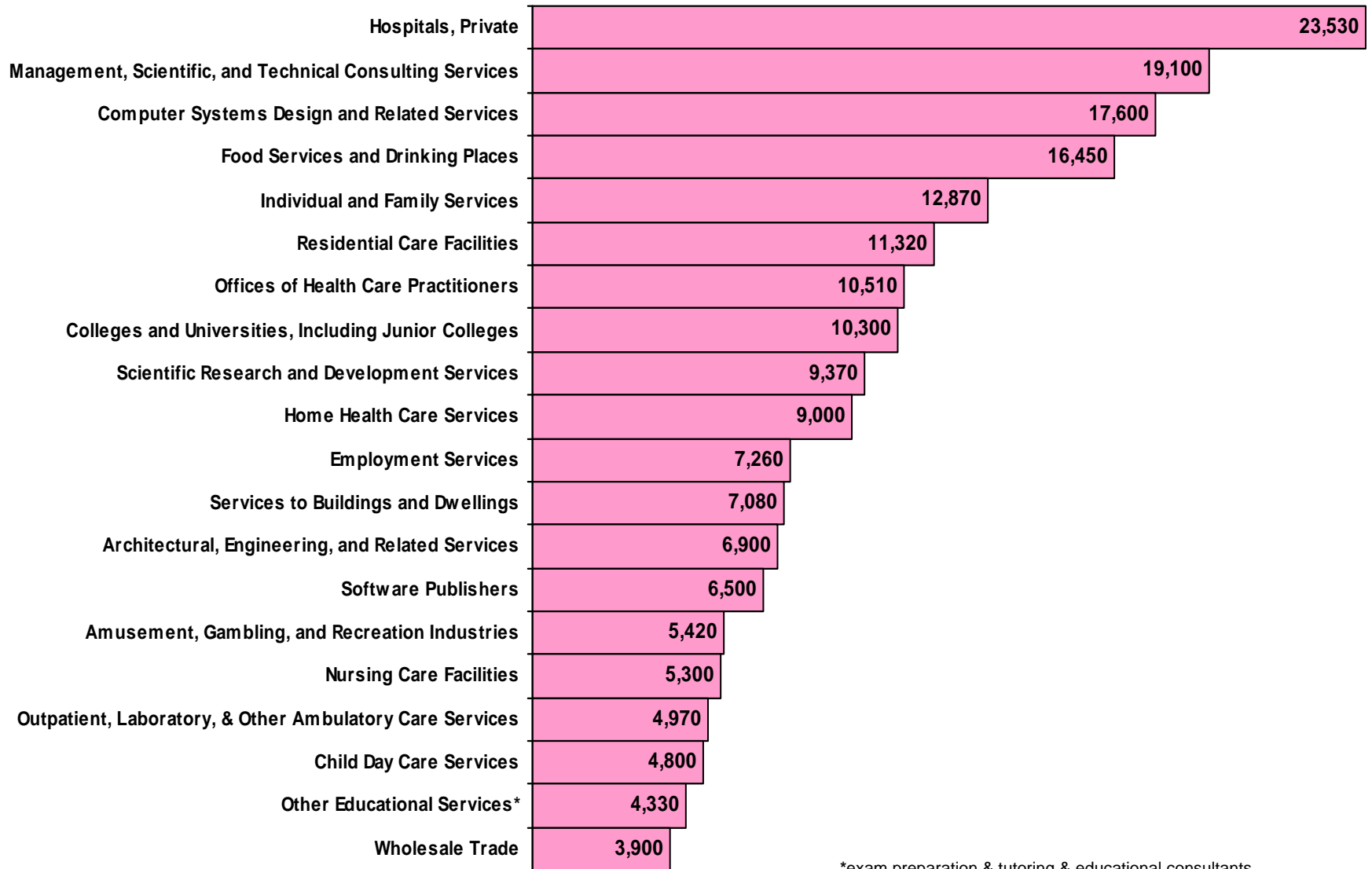
# Fastest Growing Industries, 2006-2016



\*exam preparation & tutoring & educational consultants

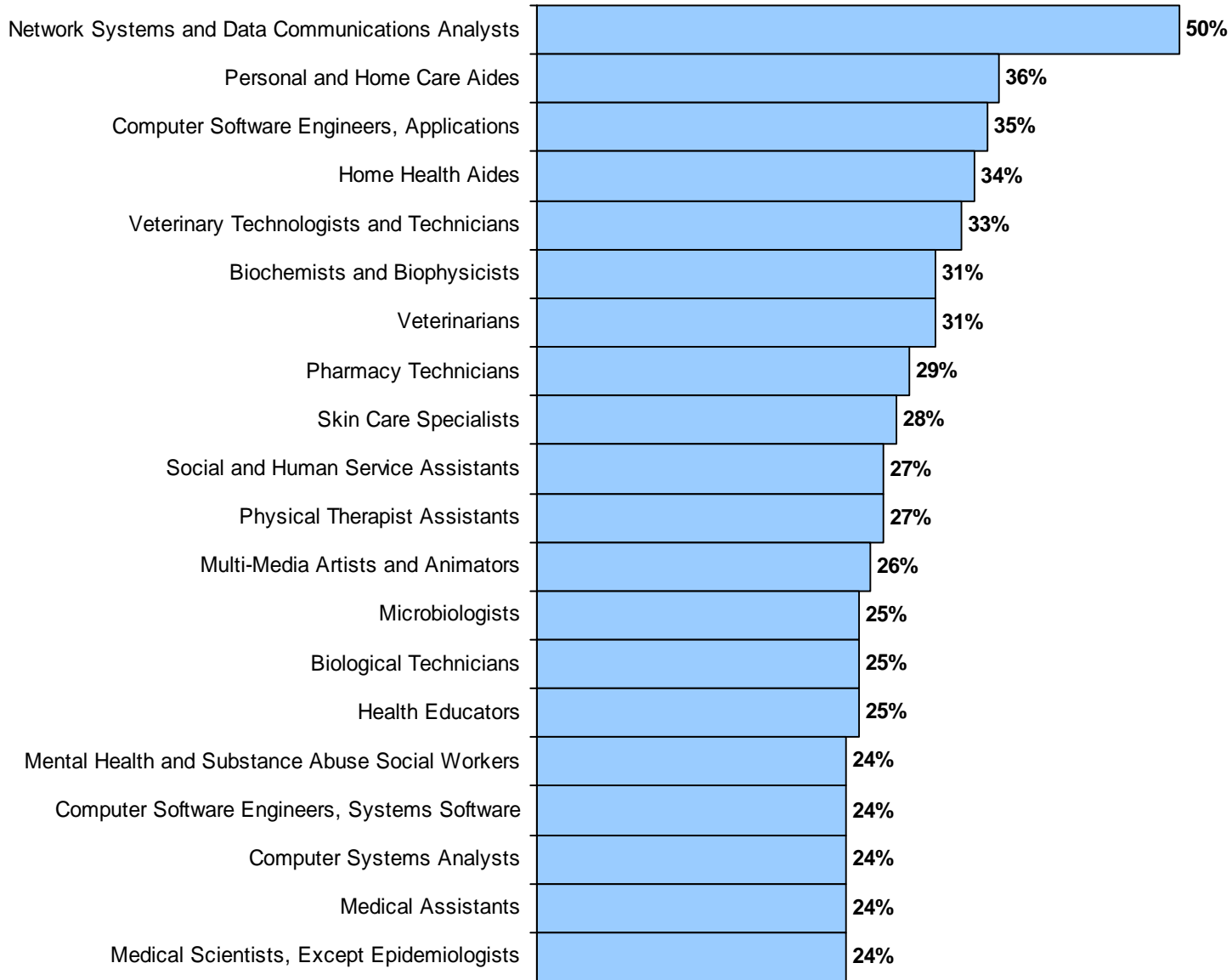
\*\*veterinarians, market research, & public polling

# Industries Generating the Most New Jobs through 2016

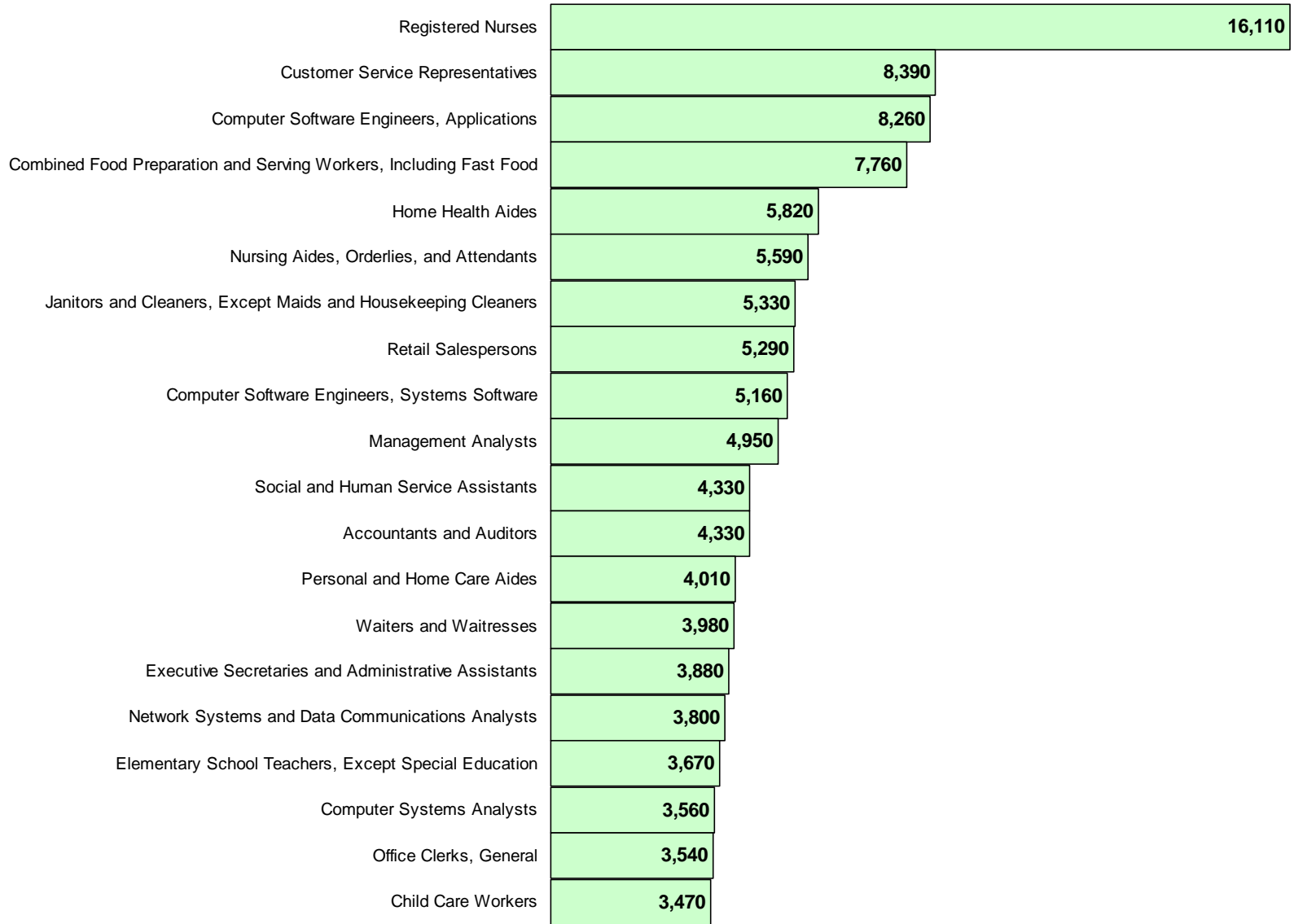


\*exam preparation & tutoring & educational consultants

# Fastest Growing Occupations 2006-2016



# Occupations Generating Nearly Half of All New Jobs by 2016



Prepared by Massachusetts Department of Workforce Development  
Economic Analysis Office

Source: Massachusetts Employment Projections 2006-2016

## Occupational Wages by Major Group, Ranked by Mean Wages Massachusetts and U.S., May 2009

SOC Code	Occupational Title	Mass. Mean	U.S. Mean	Ratio Mass. to U.S.	Massachusetts Percentile				
					10th	25th	Median	75th	90th
11-0000	Management Occupations	\$117,640	\$102,900	1.14	\$54,160	\$74,050	\$102,920	\$145,390	#
23-0000	Legal Occupations	\$99,920	\$95,820	1.04	\$38,100	\$54,510	\$80,550	\$127,590	#
15-0000	Computer and Mathematical Occupations	\$88,610	\$76,290	1.16	\$49,830	\$65,800	\$86,000	\$108,370	\$132,570
17-0000	Architecture and Engineering Occupations	\$80,470	\$73,590	1.09	\$43,250	\$56,280	\$75,910	\$100,840	\$126,930
29-0000	Healthcare Practitioners and Technical Occupations	\$78,390	\$69,690	1.12	\$31,820	\$46,860	\$66,910	\$93,160	\$133,660
13-0000	Business and Financial Operations Occupations	\$76,990	\$65,900	1.17	\$40,310	\$51,160	\$67,570	\$90,470	\$123,770
19-0000	Life, Physical, and Social Science Occupations	\$74,710	\$65,660	1.14	\$36,290	\$47,630	\$66,850	\$93,970	\$125,580
25-0000	Education, Training, and Library Occupations	\$58,230	\$49,530	1.18	\$24,310	\$35,270	\$53,890	\$71,290	\$90,290
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	\$55,120	\$51,720	1.07	\$24,120	\$33,660	\$48,050	\$68,970	\$94,010
47-0000	Construction and Extraction Occupations	\$53,640	\$43,350	1.24	\$29,370	\$37,390	\$51,010	\$66,850	\$83,630
<b>00-0000</b>	<b>Massachusetts All Occupations</b>	<b>\$52,710</b>	<b>\$43,460</b>	<b>1.21</b>	<b>\$19,700</b>	<b>\$26,720</b>	<b>\$40,840</b>	<b>\$65,450</b>	<b>\$99,090</b>
49-0000	Installation, Maintenance, and Repair Occupations	\$47,970	\$42,210	1.14	\$27,130	\$34,790	\$45,750	\$59,760	\$72,510
33-0000	Protective Service Occupations	\$45,820	\$41,740	1.10	\$21,790	\$27,890	\$44,300	\$60,190	\$73,140
21-0000	Community and Social Services Occupations	\$43,830	\$42,750	1.03	\$23,270	\$28,950	\$39,500	\$56,220	\$71,500
41-0000	Sales and Related Occupations	\$41,920	\$36,020	1.16	\$17,560	\$19,170	\$26,730	\$50,850	\$86,590
43-0000	Office and Administrative Support Occupations	\$38,110	\$32,990	1.16	\$21,280	\$27,640	\$36,060	\$46,710	\$56,910
51-0000	Production Occupations	\$36,250	\$33,290	1.09	\$20,100	\$25,100	\$33,220	\$44,010	\$56,770
53-0000	Transportation and Material Moving Occupations	\$34,330	\$32,180	1.07	\$18,670	\$22,520	\$30,850	\$41,750	\$53,500
31-0000	Healthcare Support Occupations	\$31,990	\$26,710	1.20	\$21,740	\$24,950	\$29,690	\$36,810	\$46,290
37-0000	Building and Grounds Cleaning and Maintenance Occupations	\$30,660	\$24,970	1.23	\$19,510	\$23,210	\$28,920	\$36,050	\$44,740
39-0000	Personal Care and Service Occupations	\$29,070	\$24,680	1.18	\$17,990	\$20,150	\$24,670	\$32,400	\$46,780
45-0000	Farming, Fishing, and Forestry Occupations	\$28,600	\$23,990	1.19	\$17,690	\$19,360	\$23,910	\$34,680	\$47,150
35-0000	Food Preparation and Serving Related Occupations	\$25,110	\$20,880	1.20	\$17,320	\$18,600	\$21,840	\$28,910	\$36,640

# Indicates wages of more than \$166,400 per year

Prepared by Massachusetts Department of Workforce Development  
Economic Analysis Office

Source: U.S. Bureau of Labor Statistics

## Labor Force Participation Rates 1975-2009 for United States and Massachusetts

	National Labor Force Participation Rate			Massachusetts Labor Force Participation Rate		
	Total	Male	Female	Total	Male	Female
1975	61.2%	77.9%	46.3%	64.7%	80.4%	51.0%
1976	61.6%	77.5%	47.3%	64.7%	79.9%	51.1%
1977	62.3%	77.7%	48.4%	64.7%	79.3%	51.8%
1978	63.2%	77.9%	50.0%	65.5%	79.5%	53.1%
1979	63.7%	77.8%	50.9%	66.2%	79.3%	54.5%
1980	63.8%	77.4%	51.5%	65.6%	78.4%	54.1%
1981	63.9%	77.0%	52.1%	66.7%	78.5%	56.1%
1982	64.0%	76.6%	52.6%	67.4%	79.3%	56.7%
1983	64.0%	76.4%	52.9%	66.5%	78.4%	55.9%
1984	64.4%	76.4%	53.6%	67.5%	79.0%	57.4%
1985	64.8%	76.3%	54.5%	67.3%	77.5%	58.3%
1986	65.3%	76.3%	55.3%	67.0%	76.6%	58.6%
1987	65.6%	76.2%	56.0%	67.3%	77.0%	55.8%
1988	65.9%	76.2%	56.6%	68.4%	78.1%	60.0%
1989	66.5%	76.4%	57.4%	68.9%	77.7%	61.0%
1990	66.5%	76.4%	57.5%	68.5%	77.4%	60.7%
1991	66.2%	75.8%	57.4%	67.8%	76.5%	59.9%
1992	66.4%	75.8%	57.8%	67.5%	76.2%	60.0%
1993	66.3%	75.4%	57.9%	68.0%	76.4%	60.3%
1994	66.6%	75.1%	58.8%	67.9%	75.7%	60.7%
1995	66.6%	75.0%	58.9%	67.6%	75.0%	60.8%
1996	66.8%	74.9%	59.3%	67.5%	74.0%	61.5%
1997	67.1%	75.0%	59.8%	69.0%	75.5%	62.9%
1998	67.1%	74.9%	59.8%	68.9%	74.8%	63.4%
1999	67.1%	74.7%	60.0%	68.7%	74.8%	63.0%
2000	67.1%	74.8%	59.9%	67.4%	73.8%	61.4%
2001	66.8%	74.4%	59.8%	68.0%	74.9%	61.6%
2002	66.6%	74.1%	59.6%	69.1%	76.6%	62.3%
2003	66.2%	73.5%	59.5%	67.9%	74.8%	61.7%
2004	66.0%	73.3%	59.2%	67.5%	73.7%	61.9%
2005	66.0%	73.3%	59.3%	66.8%	72.7%	61.4%
2006 <sup>P/</sup>	66.2%	73.5%	59.4%	67.0%	73.5%	61.0%
2007 <sup>P/</sup>	66.0%	73.2%	59.3%	66.9%	74.5%	59.9%
2008 <sup>P/</sup>	66.0%	73.0%	59.5%	66.6%	72.3%	61.4%
2009 <sup>P/</sup>	65.4%	72.0%	59.2%	66.5%	71.6%	61.9%

### Labor Force Participation Rate:

The proportion of the total civilian non-institutional population 16 years or older, or of a demographic subgroup of that population, classified as "in the labor force".

### US Business Cycle Contractions:

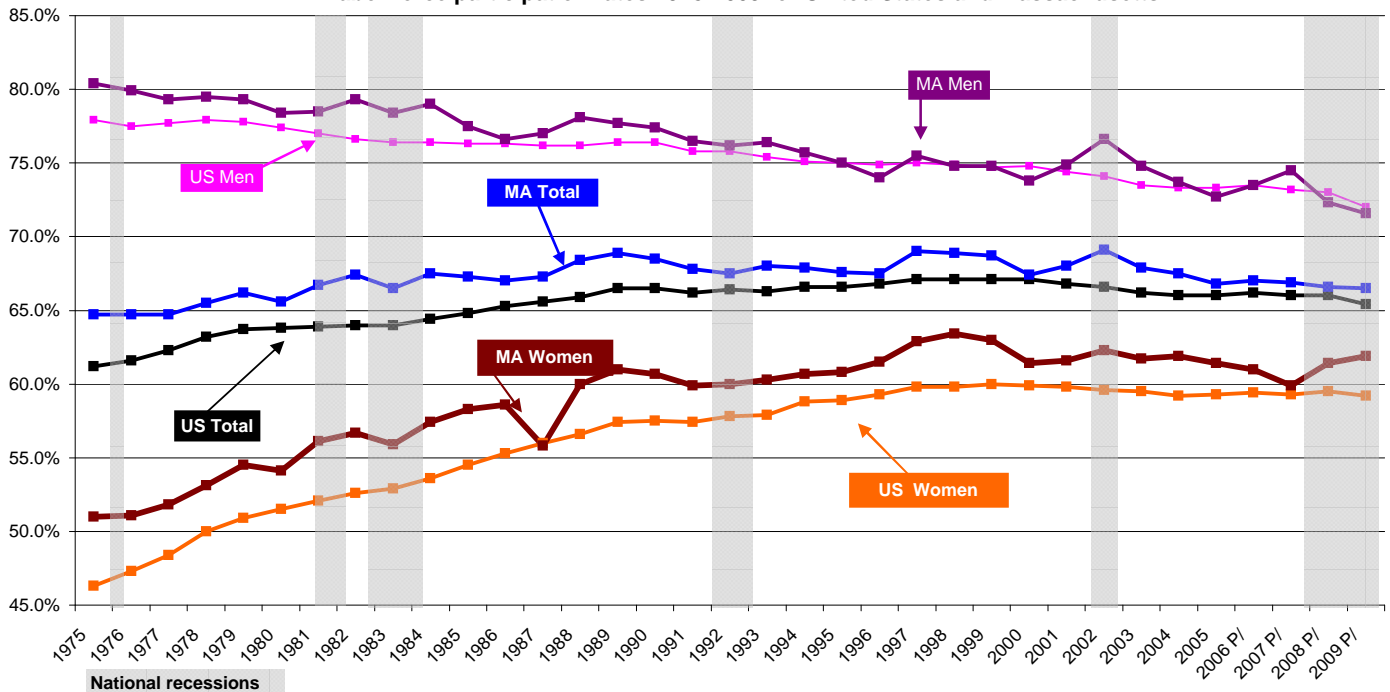
- November 1973 to March 1975 (16 months)
- January 1980 to July 1980 (6 months)
- July 1981 to November 1982 (16 Months)
- July 1990 to March 1991 (8 months)
- March 2001 to November 2001(8 months)
- December 2007 to Current

Source: National Bureau of Economic Research Business Cycle Dating Committee

Note: The NBER does not define a recession in terms of two consecutive quarters of decline in real GDP. Rather, a recession is a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales.

Source: MA 1975 to 2009 U.S. Department of Labor, Bureau of Labor Statistics, Geographic Profile of Employment and Unemployment.  
Compiled and Prepared by Mass Dept of Workforce Development, Division of Career Services, Economic Analysis Office  
P= Preliminary data

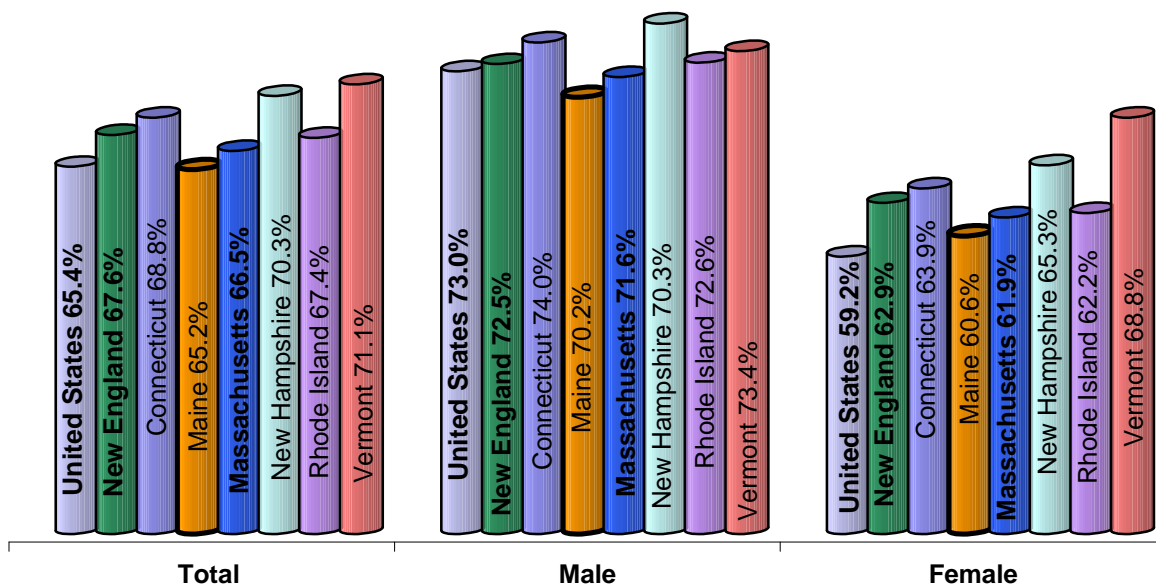
**Labor force participation rates 1975-2009 for United States and Massachusetts**



## 2009 Labor Force Participation Rates for United States and New England States

STATE	National Rank	Total	National Rank	Male	National rank	Female
<b>United States</b>		<b>65.4%</b>		<b>73.0%</b>		<b>59.2%</b>
<b>New England</b>		<b>67.6%</b>		<b>72.5%</b>		<b>62.9%</b>
Connecticut	15	68.8%	17	74.0%	13	63.9%
Maine	29	65.2%	36	70.2%	24	60.6%
<b>Massachusetts</b>	<b>22</b>	<b>66.5%</b>	<b>28</b>	<b>71.6%</b>	<b>18</b>	<b>61.9%</b>
New Hampshire	11	70.3%	10	70.3%	10	65.3%
Rhode Island	19	67.4%	25	72.6%	17	62.2%
Vermont	8	71.1%	21	73.4%	1	68.8%

### 2009 Labor Force Participation Rates for New England States



**Note:** Labor Force Participation Rate is the proportion of the total civilian non-institutional population 16 years or older, or of a demographic subgroup of that population, classified as "in the labor force".

## Annual Estimates of the Population for Massachusetts by Workforce Area April 1, 2000 to July 1, 2009

Geographic Area	Population Estimates										April 1, 2000		Estimates Base Population April 1, 2000 to July 1, 2009	
	July 1, 2009	July 1, 2008	July 1, 2007	July 1, 2006	July 1, 2005	July 1, 2004	July 1, 2003	July 1, 2002	July 1, 2001	July 1, 2000	Estimates Base	Census	Net Change	Percent Change
United States	307,006,550	304,374,846	301,579,895	298,593,212	295,753,151	293,045,739	290,326,418	287,803,914	285,081,556	282,171,957	281,424,602	281,421,906	25,581,948	9.1%
<b>Massachusetts</b>	<b>6,593,587</b>	<b>6,543,595</b>	<b>6,499,275</b>	<b>6,466,399</b>	<b>6,453,031</b>	<b>6,451,279</b>	<b>6,451,637</b>	<b>6,440,978</b>	<b>6,411,730</b>	<b>6,363,015</b>	<b>6,349,119</b>	<b>6,349,097</b>	<b>244,468</b>	<b>3.9%</b>
Berkshire County	129,288	129,571	130,219	130,494	131,268	132,052	132,672	133,101	133,723	134,787	134,953	134,953	-5,665	-4.2%
Boston	645,169	636,748	622,748	612,192	609,690	607,367	607,871	607,931	602,380	590,433	589,143	589,141	56,026	9.5%
Bristol County	363,332	361,945	360,829	360,271	360,533	361,084	360,995	359,491	356,413	354,090	353,164	353,153	10,168	2.9%
Brockton	237,254	236,233	235,227	234,218	234,116	234,522	234,774	234,297	233,127	231,530	230,990	230,970	6,264	2.7%
Cape and Islands	248,447	248,565	248,933	249,641	251,002	252,784	253,830	252,349	249,871	247,891	246,741	198,916	1,706	0.7%
Central Mass	573,897	571,010	567,890	565,206	561,372	557,883	554,436	549,282	543,247	536,306	534,461	534,433	39,436	7.4%
Franklin/Hampshire	244,151	243,852	243,344	242,730	242,306	242,145	241,853	240,775	239,603	239,313	239,138	239,140	5,013	2.1%
Greater Lowell	276,367	271,637	269,617	267,962	268,143	269,149	270,127	270,828	271,379	270,442	269,923	270,083	6,444	2.4%
Greater New Bedford	210,082	209,590	208,975	208,730	209,533	209,497	209,778	208,067	206,341	205,914	205,342	205,354	4,740	2.3%
Hampden County	471,081	469,204	467,756	466,944	465,871	464,622	463,442	460,848	457,723	456,573	456,226	456,228	14,855	3.3%
Lower Merrimack Valley	329,019	326,470	324,091	322,640	322,265	322,619	323,332	323,188	322,455	319,471	318,558	318,556	10,461	3.3%
Metro North	762,574	753,870	748,343	742,757	739,949	741,038	743,799	746,916	748,905	744,023	743,199	743,219	19,375	2.6%
Metro South/West	912,164	903,364	896,150	891,251	889,403	890,449	890,120	891,503	890,399	884,750	882,935	882,953	29,229	3.3%
North Central	254,799	252,901	251,980	250,450	248,932	247,813	246,650	245,119	243,015	239,866	238,964	238,787	15,835	6.6%
North Shore	413,563	410,895	408,975	408,534	407,991	408,282	408,971	409,908	408,327	405,908	404,863	404,863	8,700	2.1%
South Shore	522,400	517,740	514,198	512,379	510,657	509,973	508,987	507,375	504,822	501,718	500,519	500,527	21,881	4.4%

Note: The April 1, 2000 estimates base reflects changes to the Census 2000 population resulting from legal boundary updates, other geographic program changes, and Count Question Resolution actions. All geographic boundaries for the 2009 population estimates series are defined as of January 1, 2009. An "(X)" in the Census 2000 field indicates a locality that was formed or incorporated after Census 2000. Additional information on these localities can be found in the Geographic Change Notes (see "Geographic Changes" under the Geographic Topics section of the Estimates page).

Prepared by Massachusetts Department of Workforce Development  
Economic Analysis Office

Source: Population Division, U.S. Census Bureau, Release Date: March, 2010

## Annual Estimates of the Population for Cities and Towns in the North Central Workforce Area April 1, 2000 to July 1, 2009

Geographic Area	Population Estimates										April 1, 2000		Estimates Base Population April 1, 2000 to July 1, 2009	
	July 1, 2009	July 1, 2008	July 1, 2007	July 1, 2006	July 1, 2005	July 1, 2004	July 1, 2003	July 1, 2002	July 1, 2001	July 1, 2000	Estimates Base	Census	Net Change	Percent Change
United States	307,006,550	304,374,846	301,579,895	298,593,212	295,753,151	293,045,739	290,326,418	287,803,914	285,081,556	282,171,957	281,424,602	281,421,906	25,581,948	9.1%
<b>Massachusetts</b>	<b>6,593,587</b>	<b>6,543,595</b>	<b>6,499,275</b>	<b>6,466,399</b>	<b>6,453,031</b>	<b>6,451,279</b>	<b>6,451,637</b>	<b>6,440,978</b>	<b>6,411,730</b>	<b>6,363,015</b>	<b>6,349,119</b>	<b>6,349,097</b>	<b>244,468</b>	<b>3.9%</b>
North Central WIA	254,799	252,901	251,980	250,450	248,932	247,813	246,650	245,119	243,015	239,866	238,964	238,787	15,835	6.6%
Ashburnham Town	6,070	5,985	6,026	5,985	5,969	5,949	5,881	5,799	5,680	5,575	5,546	5,546	524	9.4%
Ashby Town	3,108	3,076	3,061	3,039	3,043	3,027	2,982	2,945	2,898	2,855	2,845	2,845	263	9.2%
Ayer Town	7,854	7,722	7,621	7,431	7,359	7,341	7,379	7,421	7,458	7,300	7,287	7,287	567	7.8%
Barre Town	5,616	5,569	5,647	5,600	5,549	5,485	5,458	5,390	5,244	5,152	5,119	5,113	497	9.7%
Berlin Town	2,950	2,879	2,737	2,705	2,701	2,677	2,648	2,616	2,497	2,366	2,355	2,380	595	25.3%
Bolton Town	4,604	4,565	4,566	4,503	4,452	4,412	4,373	4,299	4,252	4,172	4,134	4,148	470	11.4%
Clinton Town	14,196	14,100	14,299	14,281	14,064	13,974	13,857	13,823	13,711	13,502	13,443	13,435	753	5.6%
Fitchburg City	42,161	42,215	40,243	40,358	39,999	39,568	39,158	38,971	38,966	39,009	39,036	39,102	3,125	8.0%
Gardner City	20,972	20,856	21,107	21,059	21,079	21,175	21,236	21,188	21,009	20,839	20,770	20,770	202	1.0%
Groton Town	10,781	10,645	10,576	10,510	10,389	10,309	10,152	9,951	9,795	9,568	9,503	9,547	1,278	13.4%
Harvard Town	6,156	6,100	6,163	6,134	6,136	6,142	6,147	6,126	6,089	6,016	5,990	5,981	166	2.8%
Hubbardston Town	4,479	4,421	4,481	4,439	4,357	4,285	4,240	4,165	4,086	3,948	3,912	3,909	567	14.5%
Lancaster Town	7,034	6,977	7,159	7,066	6,884	6,798	6,684	6,601	6,552	6,455	6,413	7,380	621	9.7%
Leominster City	42,293	42,020	42,187	41,883	41,979	42,204	42,349	42,269	41,943	41,470	41,333	41,303	960	2.3%
Lunenburg Town	10,157	10,071	10,210	10,133	10,090	10,041	9,972	9,823	9,685	9,471	9,403	9,401	754	8.0%
Pepperell Town	11,508	11,367	11,295	11,218	11,242	11,229	11,271	11,278	11,300	11,191	11,137	11,142	371	3.3%
Princeton Town	3,520	3,501	3,557	3,546	3,535	3,515	3,514	3,478	3,434	3,371	3,353	3,353	167	5.0%
Shirley Town	8,110	8,043	7,895	7,716	7,517	7,512	7,526	7,554	7,587	7,631	7,616	6,373	494	6.5%
Sterling Town	7,786	7,729	7,834	7,815	7,787	7,725	7,705	7,613	7,486	7,304	7,257	7,257	529	7.3%
Templeton Town	7,963	7,890	7,983	7,888	7,717	7,487	7,297	7,192	7,060	6,841	6,796	6,799	1,167	17.2%
Townsend Town	9,687	9,553	9,488	9,407	9,406	9,391	9,385	9,377	9,324	9,220	9,198	9,198	489	5.3%
Westminster Town	7,478	7,413	7,506	7,452	7,424	7,372	7,316	7,230	7,090	6,943	6,907	6,907	571	8.3%
Winchendon Town	10,316	10,204	10,339	10,282	10,254	10,195	10,120	10,010	9,869	9,667	9,611	9,611	705	7.3%

Note: The April 1, 2000 estimates base reflects changes to the Census 2000 population resulting from legal boundary updates, other geographic program changes, and Count Question Resolution actions. All geographic boundaries for the 2009 population estimates series are defined as of January 1, 2009. An "(X)" in the Census 2000 field indicates a locality that was formed or incorporated after Census 2000. Additional information on these localities can be found in the Geographic Change Notes (see "Geographic Changes" under the Geographic Topics section of the Estimates page).

## Annual Estimates of the Population for Massachusetts by County April 1, 2000 to July 1, 2009

Geographic Area	Population Estimates										April 1, 2000		Estimates Base Population April 1, 2000 to July 1, 2009	
	July 1, 2009	July 1, 2008	July 1, 2007	July 1, 2006	July 1, 2005	July 1, 2004	July 1, 2003	July 1, 2002	July 1, 2001	July 1, 2000	Estimates Base	Census	Net Change	Percent Change
<b>Massachusetts</b>	<b>6,593,587</b>	<b>6,543,595</b>	<b>6,499,275</b>	<b>6,466,399</b>	<b>6,453,031</b>	<b>6,451,279</b>	<b>6,451,637</b>	<b>6,440,978</b>	<b>6,411,730</b>	<b>6,363,015</b>	<b>6,349,119</b>	<b>6,349,097</b>	<b>244,468</b>	<b>3.9%</b>
Barnstable County	221,151	221,521	222,246	223,351	224,877	226,728	228,038	226,893	224,928	223,245	222,234	222,230	-1,083	-0.5%
Berkshire County	129,288	129,571	130,219	130,494	131,268	132,052	132,672	133,101	133,723	134,787	134,953	134,953	-5,665	-4.2%
Bristol County	547,433	545,810	544,487	543,634	544,688	545,460	545,819	542,717	538,299	536,008	534,682	534,678	12,751	2.4%
Dukes County	15,974	15,772	15,627	15,487	15,517	15,520	15,487	15,380	15,201	15,072	14,987	14,987	987	6.6%
Essex County	742,582	737,365	733,066	731,174	730,256	730,901	732,303	733,096	730,782	725,379	723,421	723,419	19,161	2.6%
Franklin County	71,778	71,877	71,771	71,774	71,929	71,933	71,870	71,830	71,593	71,499	71,535	71,535	243	0.3%
Hampden County	471,081	469,204	467,756	466,944	465,871	464,622	463,442	460,848	457,723	456,573	456,226	456,228	14,855	3.3%
Hampshire County	156,044	155,788	155,198	154,648	154,124	153,998	153,845	153,011	152,304	152,381	152,255	152,251	3,789	2.5%
Middlesex County	1,505,006	1,487,636	1,475,519	1,467,985	1,465,156	1,467,576	1,470,427	1,473,966	1,476,773	1,468,934	1,466,396	1,465,396	38,610	2.6%
Nantucket County	11,322	11,272	11,060	10,803	10,608	10,536	10,305	10,076	9,742	9,574	9,520	9,520	1,802	18.9%
Norfolk County	666,303	661,359	656,122	652,750	650,996	652,283	652,781	654,144	653,482	651,227	650,306	650,308	15,997	2.5%
Plymouth County	498,344	494,353	491,361	489,241	488,267	486,640	485,444	483,209	478,981	474,414	472,822	472,822	25,522	5.4%
Suffolk County	753,580	742,724	728,819	715,799	712,228	710,282	711,144	711,464	705,348	691,238	689,809	689,807	63,771	9.2%
Worcester County	803,701	799,343	796,024	792,315	787,246	782,748	778,060	771,243	762,851	752,684	749,973	750,963	53,728	7.2%

Note: The April 1, 2000 estimates base reflects changes to the Census 2000 population resulting from legal boundary updates, other geographic program changes, and Count Question Resolution actions. All geographic boundaries for the 2009 population estimates series are defined as of January 1, 2009.

## Cumulative Estimates of the Components of Population Change for Counties of Massachusetts April 1, 2000 to July 1, 2009

Geographic Area	Total Population Change*	Natural Increase	Vital Events		Net Migration		
			Births	Deaths	Total	International**	Domestic
<b>Massachusetts</b>	<b>244,468</b>	<b>220,701</b>	<b>729,448</b>	<b>508,747</b>	<b>-31,623</b>	<b>245,145</b>	<b>-276,768</b>
Barnstable County	-1,083	-7,278	18,189	25,467	7,503	3,161	4,342
Berkshire County	-5,665	-2,548	11,642	14,190	-2,251	1,219	-3,470
Bristol County	12,751	14,343	60,902	46,559	1,642	6,161	-4,519
Dukes County	987	299	1,513	1,214	762	487	275
Essex County	19,161	26,869	86,145	59,276	-3,304	23,241	-26,545
Franklin County	243	396	6,327	5,931	287	1,071	-784
Hampden County	14,855	11,872	53,487	41,615	-2,806	12,495	-15,301
Hampshire County	3,789	566	11,653	11,087	4,109	3,250	859
Middlesex County	38,610	64,234	167,999	103,765	-24,296	78,157	-102,453
Nantucket County	1,802	833	1,415	582	494	460	34
Norfolk County	15,997	21,986	73,676	51,690	-1,928	19,405	-21,333
Plymouth County	25,522	19,535	56,868	37,333	8,703	6,987	1,716
Suffolk County	63,771	39,742	87,710	47,968	-35,725	66,489	-102,214
Worcester County	53,728	29,852	91,922	62,070	15,187	22,562	-7,375

\*Total population change includes a residual. This residual represents the change in population that cannot be attributed to any specific demographic component. See State and County Terms and Definitions at <http://www.census.gov/popest/topics/terms/states.html>.

\*\*Net international migration includes the international migration of both native and foreign-born populations. Specifically, it includes: (a) the net international migration of the foreign born, (b) the net migration between the United States and Puerto Rico, (c) the net migration of natives to and from the United States, and (d) the net movement of the Armed Forces population between the United States and overseas.

Note: The April 1, 2000 estimates base reflects changes to the Census 2000 population resulting from legal boundary updates, other geographic program changes, and Count Question Resolution actions. All geographic boundaries for the 2009 population estimates series are defined as of January 1, 2009.

**North Central Workforce Area Place of Residence to Place of Work  
2000 Census Work Flow for Workers 16 Years and Older**

	<b>Workers 16 Years Old and Over</b>	
	<b>Number</b>	<b>Percent</b>
Total Residents in North Central	115,216	100.00%
<b>Where North Central Residents Work:</b>		
<b>Massachusetts</b>	<b>111,728</b>	<b>96.97%</b>
<b>North Central</b>	<b>63,190</b>	<b>54.84%</b>
Berkshire County	41	0.04%
Boston	2,249	1.95%
Bristol County	121	0.11%
Brockton	108	0.09%
Cape and Islands	24	0.02%
Central Mass	15,295	13.28%
Franklin/Hampshire	802	0.70%
Greater Lowell	5,132	4.45%
Greater New Bedford	65	0.06%
Hampden County	174	0.15%
Lower Merrimack Valley	1,294	1.12%
Metro North	4,322	3.75%
Metro South/West	18,183	15.78%
North Shore	495	0.43%
South Shore	233	0.20%
New England States and New York	3,169	2.75%
Connecticut	120	0.10%
Maine	31	0.03%
New Hampshire	2,770	2.40%
New York	119	0.10%
Rhode Island	111	0.10%
Vermont	18	0.02%
Other States	257	0.22%
Outside the U.S.A.	62	0.05%

Prepared by Massachusetts Department of Workforce Development  
Economic Analysis Office

Source: U.S. Census Bureau, Release Date: July 25, 2003

**North Central Workforce Area Place of Work by Place of Residence  
2000 Census Work Flow for Workers 16 Years and Older**

	Workers 16 Years Old and Over	
	Number	Percent
Total Working in North Central	89,851	100.00%
<b>Where North Central Workers Reside:</b>		
<b>North Central</b>	<b>63,190</b>	<b>70.33%</b>
Outside North Central	26,661	29.67%
Berkshire County	5	0.01%
Boston	597	0.66%
Bristol County	317	0.35%
Brockton	212	0.24%
Cape and Islands	83	0.09%
Central Mass	10,825	12.05%
Franklin/Hampshire	2,988	3.33%
Greater Lowell	2,007	2.23%
Greater New Bedford	148	0.16%
Hampden County	298	0.33%
Lower Merrimack Valley	535	0.60%
Metro North	1,214	1.35%
Metro South/West	3,312	3.69%
North Shore	398	0.44%
South Shore	267	0.30%
New England States and New York	3,231	3.60%
Connecticut	222	0.25%
Maine	66	0.07%
New Hampshire	2,487	2.77%
New York	93	0.10%
Rhode Island	350	0.39%
Vermont	13	0.01%
Other States	224	0.25%

Prepared by Massachusetts Department of Workforce Development  
Economic Analysis Office

Source: U.S. Census Bureau, Release Date: July 25, 2003

## North Central Workforce Area by City and Town: Estimated Daytime Population and Employment-Residence Ratios: 2000

Area Name	Total Resident Population	Total Workers Working in the Place	Total Workers Living in the Place	Estimated Daytime Population	Daytime Population Change Due to Commuting		Workers Who Lived and Worked in the Same Place		Employment Residence Ratio
					Number	Percent	Number	Percent	
Massachusetts	6,349,097	3,178,497	3,102,837	<b>6,424,757</b>	75,660	1.2%	3,001,756	96.7%	<b>1.02</b>
<i>Massachusetts (living &amp; working in the same city or town)</i>	<i>6,349,097</i>	<i>3,178,497</i>	<i>3,102,837</i>	<i><b>6,424,757</b></i>	<i>75,660</i>	<i>1.2%</i>	<i>970,086</i>	<i>31.3%</i>	<i><b>1.02</b></i>
North Central Workforce Area	238,787	89,851	115,216	<b>213,422</b>	-25,365	-10.6%	63,190	54.8%	<b>0.78</b>
<i>North Central Workforce Area (living &amp; working in the same city or town)</i>	<i>238,787</i>	<i>89,851</i>	<i>115,216</i>	<i><b>213,422</b></i>	<i>-25,365</i>	<i>-10.6%</i>	<i>29,990</i>	<i>26.0%</i>	<i><b>0.78</b></i>
Ashburnham Town	5,546	1,051	2,820	<b>3,777</b>	-1,769	-31.9%	343	12.2%	<b>0.37</b>
Ashby Town	2,845	525	1,507	<b>1,863</b>	-982	-34.5%	228	15.1%	<b>0.35</b>
Ayer Town	7,287	5,415	3,861	<b>8,841</b>	1,554	21.3%	798	20.7%	<b>1.40</b>
Barre Town	5,113	2,033	2,452	<b>4,694</b>	-419	-8.2%	669	27.3%	<b>0.83</b>
Berlin Town	2,380	766	1,240	<b>1,906</b>	-474	-19.9%	236	19.0%	<b>0.62</b>
Bolton Town	4,148	2,104	2,212	<b>4,040</b>	-108	-2.6%	399	18.0%	<b>0.95</b>
Clinton Town	13,435	4,856	6,726	<b>11,565</b>	-1,870	-13.9%	1,653	24.6%	<b>0.72</b>
Fitchburg City	39,102	17,055	17,129	<b>39,028</b>	-74	-0.2%	6,242	36.4%	<b>1.00</b>
Gardner City	20,770	9,699	9,481	<b>20,988</b>	218	1.0%	3,612	38.1%	<b>1.02</b>
Groton Town	9,547	3,060	4,759	<b>7,848</b>	-1,699	-17.8%	997	20.9%	<b>0.64</b>
Harvard Town	5,981	2,259	2,752	<b>5,488</b>	-493	-8.2%	471	17.1%	<b>0.82</b>
Hubbardston Town	3,909	656	2,074	<b>2,491</b>	-1,418	-36.3%	267	12.9%	<b>0.32</b>
Lancaster Town	7,380	2,766	3,087	<b>7,059</b>	-321	-4.3%	720	23.3%	<b>0.90</b>
Leominster City	41,303	18,348	19,854	<b>39,797</b>	-1,506	-3.6%	7,167	36.1%	<b>0.92</b>
Lunenburg Town	9,401	2,751	4,953	<b>7,199</b>	-2,202	-23.4%	923	18.6%	<b>0.56</b>
Pepperell Town	11,142	1,885	5,860	<b>7,167</b>	-3,975	-35.7%	925	15.8%	<b>0.32</b>
Princeton Town	3,353	713	1,790	<b>2,276</b>	-1,077	-32.1%	218	12.2%	<b>0.40</b>
Shirley Town	6,373	1,550	2,791	<b>5,132</b>	-1,241	-19.5%	351	12.6%	<b>0.56</b>
Sterling Town	7,257	1,929	3,941	<b>5,245</b>	-2,012	-27.7%	515	13.1%	<b>0.49</b>
Templeton Town	6,799	1,980	3,219	<b>5,560</b>	-1,239	-18.2%	713	22.1%	<b>0.62</b>
Townsend Town	9,198	2,888	4,786	<b>7,300</b>	-1,898	-20.6%	800	16.7%	<b>0.60</b>
Westminster Town	6,907	3,353	3,493	<b>6,767</b>	-140	-2.0%	648	18.6%	<b>0.96</b>
Winchendon Town	9,611	2,209	4,429	<b>7,391</b>	-2,220	-23.1%	1,095	24.7%	<b>0.50</b>

Prepared by Massachusetts Department of Workforce Development  
Economic Analysis Office

Source: U.S. Census Bureau, Census 2000

### **Technical Notes for estimated daytime population and employment-residence ratios.**

**Workers** – people 16 years and over who were employed and at work during the reference week. The estimate of workers includes part-time and full-time civilian personnel and people in the Armed Forces.

**Total resident population** – the total number of persons living in the place, as shown in Census 2000 100-percent data such as Summary File 1.

**Total workers working in the place** – this is the number of workers who reported working in the place, regardless of their place of residence. In other words, it is the total that worked there no matter where they lived. Residence locations are not considered, only workplace locations are reflected in this number.

**Total workers living in the place** – this is sometimes referred to as the number of resident workers. It is the number of people living in the place who are workers. It includes workers who live there regardless of where they worked, or in other words, no matter where their workplace was located. Place of work location is not considered, only residence location is reflected in this number.

**Estimated daytime population** – this is the estimate arrived at by adjusting the total resident population by the number of incommuters and outcommuters to the place, using data from Census 2000. It does not adjust for people entering or leaving the place for purposes other than commuting, nor does the commuting adjustment take the time of day of the work trips into account. The estimate is calculated by adding the total resident population and the total workers working in the place, and then subtracting from that result the total workers living in the place. This method yields the same result as would be obtained by adding the incommuters and subtracting the outcommuters from the total resident population.

**Daytime population change due to commuting: number** – this is the numeric increase or decrease in the population of the place as a result of work-related commuting. It is the net change in the population due to work travel and is computed by subtracting the total resident population from the estimated daytime population. Positive numbers indicate more commuters entering the place than leaving it. Negative numbers occur when more workers leave the place to go to work than enter it to come to work.

**Daytime population change due to commuting: percent** – this is the percentage increase or decrease in the population of the place as a result of work-related commuting. It is calculated by dividing the numeric change due to commuting by the total resident population, and multiplying the result by 100. Positive figures denote the percentage increase experienced by the population, while negative numbers show the percentage decrease in the population as a result of commuting.

**Workers who lived and worked in the same place: number** – this value shows how many workers who lived in a particular place also worked in that same place. It is derived from place of residence location information and responses to the question on workplace location during the week prior to filling out the census questionnaire.

**Workers who lived and worked in the same place: percent** – this measure is sometimes used as an indicator of worker retention, but it does not reflect variation in area size or other attributes very well. It is computed by dividing the number of workers who lived and worked in the same place by the total workers living there and multiplying the result by 100.

**Employment-residence (E-R) ratio** – this is a measure of the total number of workers working in a place, relative to the total number of workers living in the place. It is often used as a rough indication of the jobs-workers balance in a place, although it does not take into account whether the resident workers possess the skills needed for the jobs that are available. E-R ratios greater than 1.00 occur when there are more workers working in the place than living there. These places can be considered as net importers of labor. For example, an E-R ratio of 1.19 means that there are 19 percent more workers working in the place than living in the place. Values less than 1.00 indicate places that send more workers to other areas than they receive, i.e., they are net exporters of labor.



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