

# **GREATER METROWEST**

# **Economic Profile 2015<sup>©</sup>**



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**Framingham**  
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# Framingham State University

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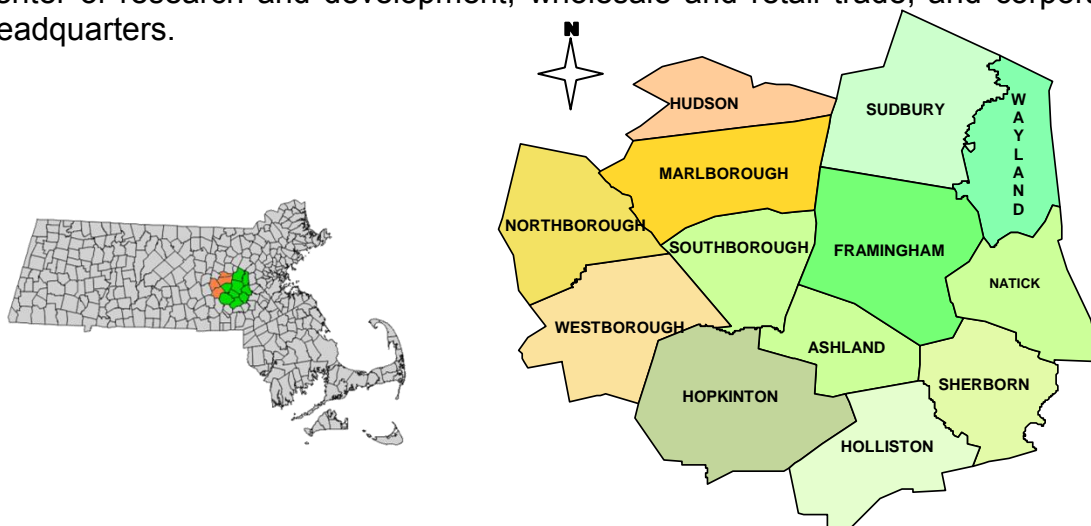
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## INTRODUCTION

Greater MetroWest (GMW) includes thirteen communities located between Boston and Worcester: the nine towns of the MetroWest Cohesive Commercial Statistical Area (CCSA), and the four communities of the Greater Marlborough Region. With a population of more than 285,000, the region hosts a very well educated and highly skilled labor force of more than 156,000 individuals who reside in households with high incomes when compared to the state and the nation. Strategically located between Boston and Worcester, GMW benefits from four major highways serving the region's residents and businesses: Interstate 495, Interstate 90 (Massachusetts Turnpike) and U.S. routes 9 and 20.

Greater MetroWest businesses generated more than 183,000 jobs and a payroll exceeding \$12.8 billion in 2013. The region provided 4.5% of the Massachusetts labor force, 5.5% of Massachusetts employment, and 6.3% of Massachusetts payroll. Home to thousands of small and medium sized businesses as well as large national firms like Astra Zeneca, Bose, Boston Scientific, Cumberland/Gulf, EMC, Genzyme, Intel, Mathworks, Raytheon, Staples, TJX, and the internationally known U.S. Army Natick Laboratories, GMW is a recognized center of research and development, wholesale and retail trade, and corporate headquarters.



The *2015 Greater MetroWest Economic Profile* includes the most recent economic data for the region and its individual communities, and trends over several years as well as comparisons with the state and the nation. This comprehensive publication provides economic data and analyses of labor force and unemployment, employment (including payroll, wages and establishments), housing permits, existing home sales, cost of living, municipal revenue, municipal taxes, and K-12 public school enrollment.

The MetroWest Economic Research Center (MERC) at Framingham State University creates and maintains economic databases on a number of regional economies in the state. For more information on the data and analyses in this report, please contact MERC.

# **2015 Greater MetroWest Economic Profile**

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## GREATER METROWEST – UNEMPLOYMENT

### UNEMPLOYMENT<sup>1</sup>

Each month the MetroWest Economic Research Center (MERC) at Framingham State University calculates a composite unemployment rate for the Greater MetroWest region which includes MetroWest and the Greater Marlborough Region. The unemployment rate is household-based and reflects the labor market status of the **residents** of the regions. The information for the rate is obtained from the Massachusetts Executive Office of Labor and Workforce Development (MA EOLWD) which provides monthly estimates of the size of the local labor force, the number of employed and unemployed residents, and the unemployment rates for all Massachusetts cities and towns.

The unemployment rate is a measure of the amount of unutilized labor in the economy. The rate represents the proportion of unemployed individuals in the labor force. The **labor force** is defined as all civilian non-institutionalized persons age 16 and over who are either employed or unemployed. The **employed** are those individuals who work as paid employees, are self-employed, or who work 15 hours or more as unpaid workers in a family operated enterprise. Also included as employed are people who did not work but who had a job from which they were temporarily absent due to vacation, illness, childcare problems or other personal obligations, whether or not they were paid during their absence. The **unemployed** are those who did not hold a job during the survey period but were actively seeking employment. For example, the February 2015 unemployment rate in Framingham of 3.8% was based on the following information: the size of the labor force was **estimated** at 39,765 workers, the sum of 38,237 residents who were employed and 1,528 residents who were unemployed. The rate, expressed as a percentage, was obtained by dividing the unemployed (1,528) by the labor force (39,765) and multiplying by 100 to get the unemployment rate of 3.8%.

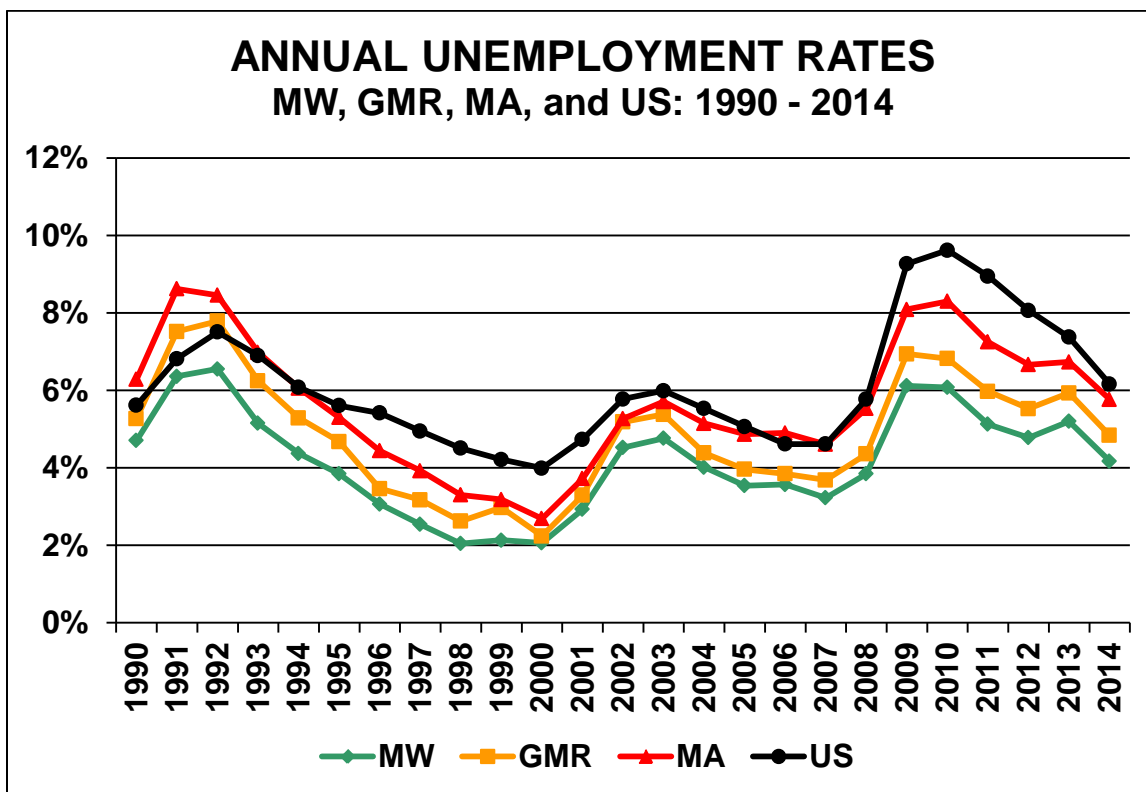
Not everyone in the working age population is included in the labor force. Individuals who were in the working age population but who could not be classified as employed or unemployed (a full time homemaker, for example) would not be counted in the labor force.

The local area unemployment rates for the cities and towns are not seasonally adjusted and are subject to periodic revision and re-benchmarking. For purposes of comparison, the state and national unemployment rates shown in this report are likewise not seasonally adjusted.

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<sup>1</sup>The definition of terms such as labor force, employed, and unemployed are based on those in *The BLS Handbook of Methods*, U. S. Bureau of Labor Statistics, September 2011.

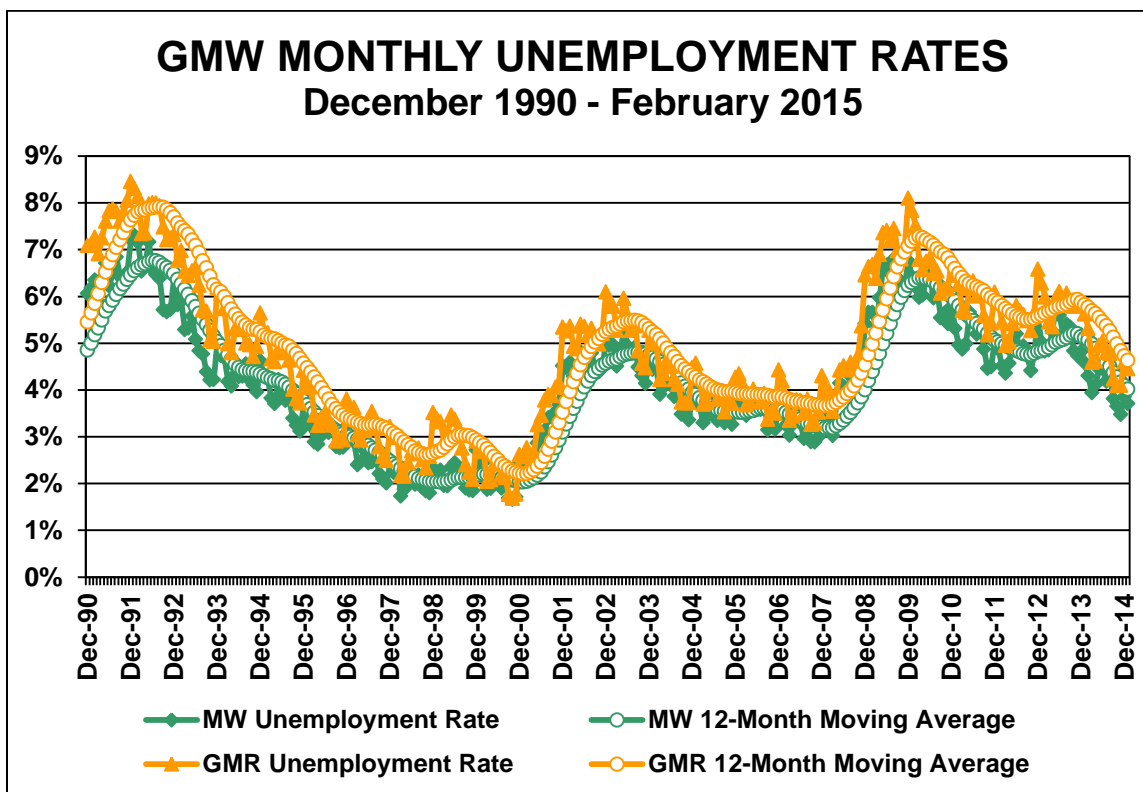
## GREATER METROWEST – UNEMPLOYMENT



Source: MA EOLWD and MERC

- The annual unemployment rates for MetroWest (MW), the Greater Marlborough Region (GMR), Massachusetts (MA), and the United States (US) from 1990 to 2014 are calculated by averaging the monthly unemployment rates for each year.
- MetroWest posted an unemployment rate of 4.2% in 2014, while the Greater Marlborough Region's unemployment rate during this same year was 4.8%. Both MW's and GMR's rates were lower than Massachusetts' and the United States' rates of 5.8% and 6.2%, respectively.
- All four regions experienced a decrease in unemployment rates from 2013 to 2014. MW displayed a decrease of -1.0% from 2013 to 2014, and GMR displayed a decrease of -1.1%. MA and the US posted decreases of -0.9% and -1.2%, respectively from 2013 to 2014. In 2014, these regions experienced their lowest rates since MW and GMR's peaks in 2009 and MA and US's peaks in 2010.
- MetroWest and the Greater Marlborough Region have consistently posted annual unemployment rates lower than both Massachusetts and the United States except in both 1991 and 1992 when GMR recorded higher annual unemployment rates than the nation.

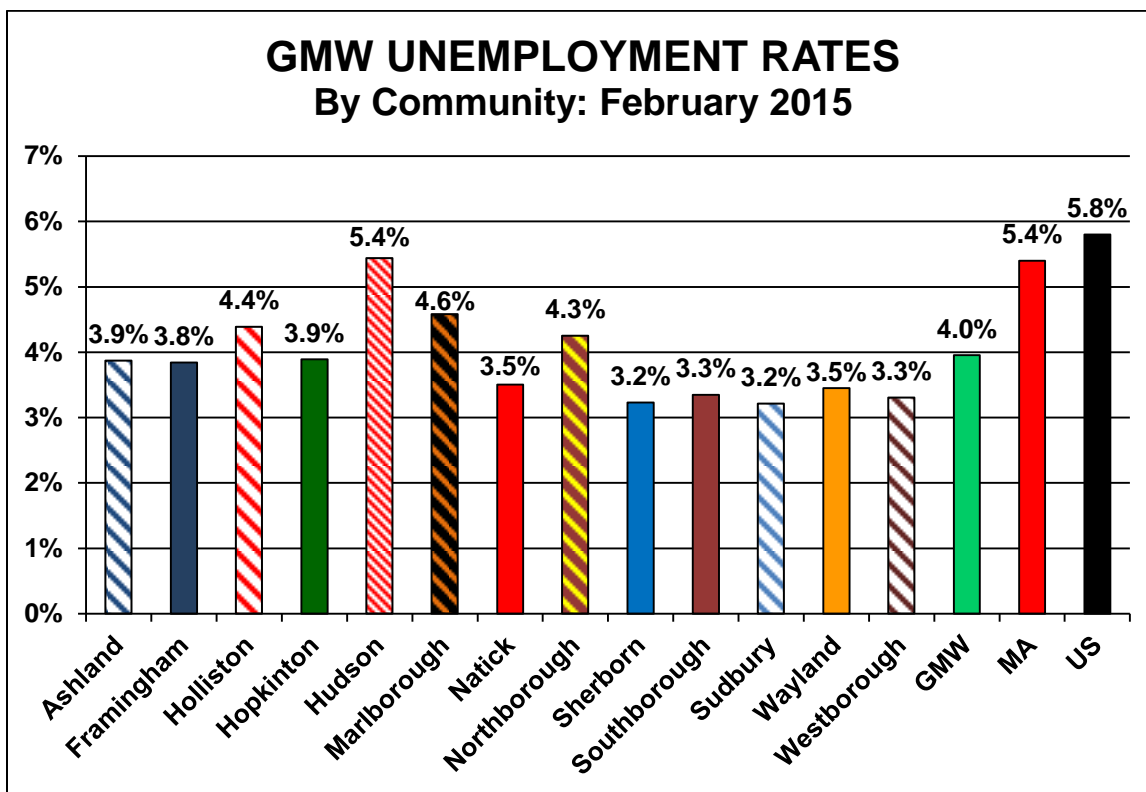
## GREATER METROWEST – UNEMPLOYMENT



Source: MA EOLWD and MERC

- This graph examines the monthly unemployment rates and the 12-month moving average rates for MetroWest (MW, shown in green) and the Greater Marlborough Region (GMR, shown in orange) from December 1990 to February 2015. The 12-month moving average evens out the month-to-month variation of the data.
- During this time period, MetroWest reached its peak unemployment rate of 7.3% in February 1992, while the Greater Marlborough Region reached its peak rate of 8.5% in January 1992. MW and GMR reached their lowest unemployment rates of 1.7% in April 1998 and November 2000, respectively.
- In February 2015, MW had an unemployment rate of 3.7%, a decrease of -0.2% from the previous month's rate of 3.9%. GMR's unemployment rate during February 2015 was 4.5%, only a -0.1% decrease from the previous month's rate of 4.6%.
- The 12-month moving averages in both MW and GMR followed a similar pattern with their monthly rates from December 1990 through February 2015.

## GREATER METROWEST – UNEMPLOYMENT

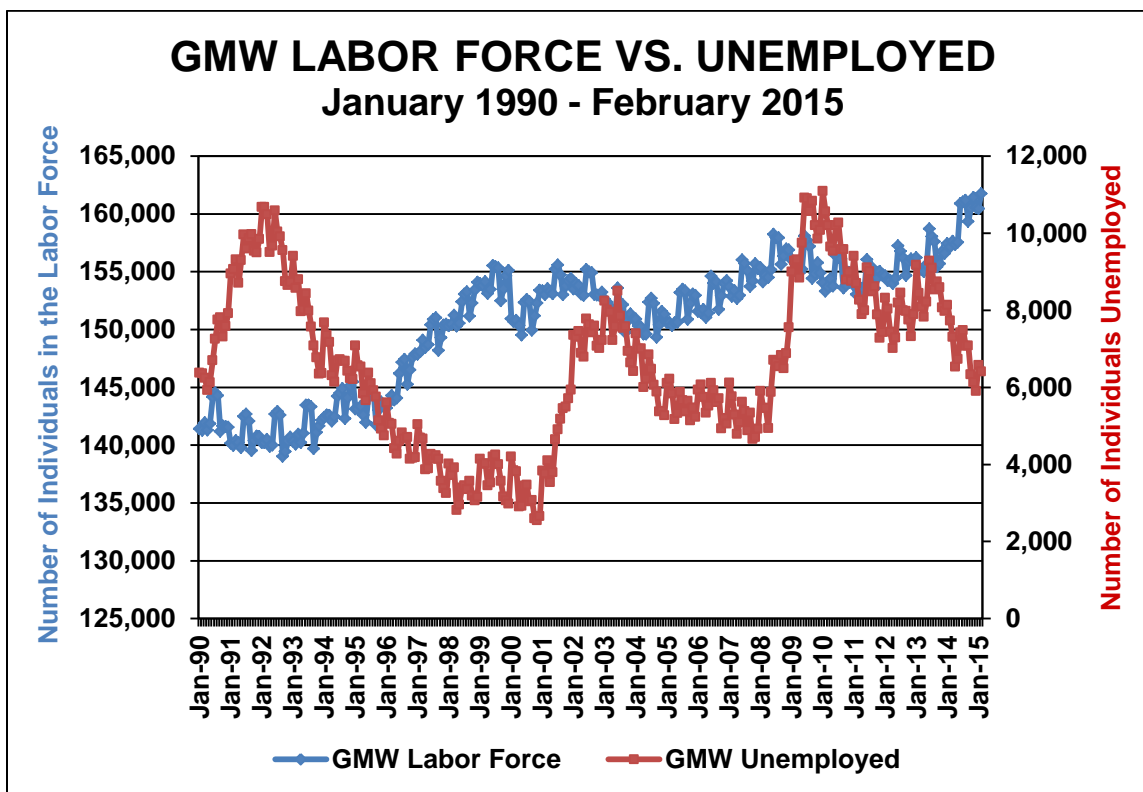


Source: MA EOLWD and MERC

- In February 2015, twelve of the thirteen communities in Greater MetroWest (GMW) posted unemployment rates lower than those of both the state and the nation of 5.4% and 5.8%, respectively.
- Holliston, Hudson, Marlborough, and Northborough were the four communities in the region that posted unemployment rates higher than Greater MetroWest's rate of 4.0%.
- Among the thirteen communities in Greater MetroWest, Hudson posted the highest unemployment rate in February 2015 at 5.4%, the same rate posted by the state during this time. Marlborough and Holliston posted the next highest unemployment rates in the region with 4.6% and 4.4%, respectively.
- Sherborn and Sudbury recorded the lowest unemployment rates in February 2015 at 3.2%, followed by Southborough and Westborough at 3.3%.



## GREATER METROWEST – UNEMPLOYMENT



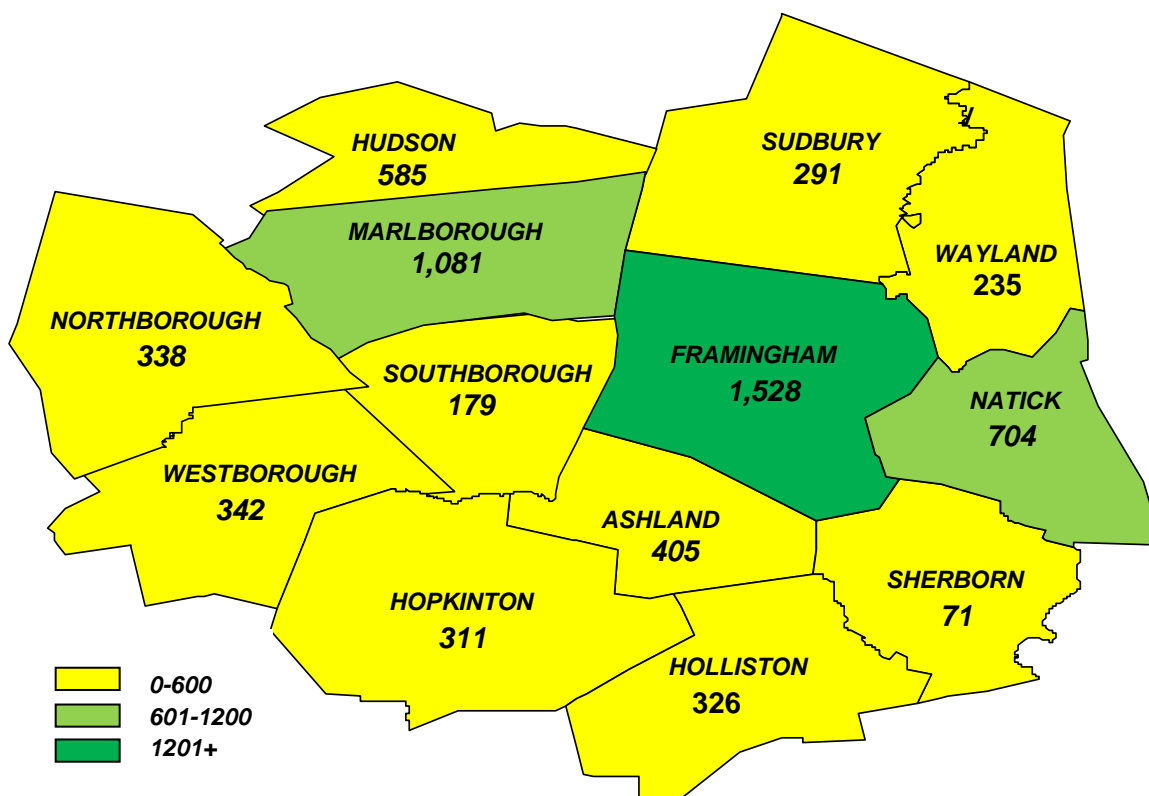
Source: MA EOLWD and MERC

- The number of individuals in the labor force is shown in blue on the left-hand scale, and the number of individuals unemployed is shown in red on the right-hand scale. These scales are used to compare the data for the labor force and unemployed individuals in Greater MetroWest (GMW) between January 1990 and February 2015. The labor force includes individuals aged 16 years and older who were either employed or unemployed. An individual is unemployed if he or she did not have a job, but was actively seeking employment.
- The labor force in GMW reached its lowest point in September 1992 with 139,027 individuals. Since then, there has been an upward trend in the labor force in the region. The number of individuals in the labor force reached its peak in February 2015 with 161,779 individuals.
- In February 2015, the number of individuals unemployed was 6,396 individuals. The number reached its overall highest point in January 2010 with a total of 11,095 individuals. The number of unemployed individuals reached three peaks in February 1992, June 2003, and January 2010. The lowest number of individuals unemployed was recorded in November 2000 with a total of 2,545 individuals.

## GREATER METROWEST – UNEMPLOYMENT

### GMW NUMBER OF UNEMPLOYED

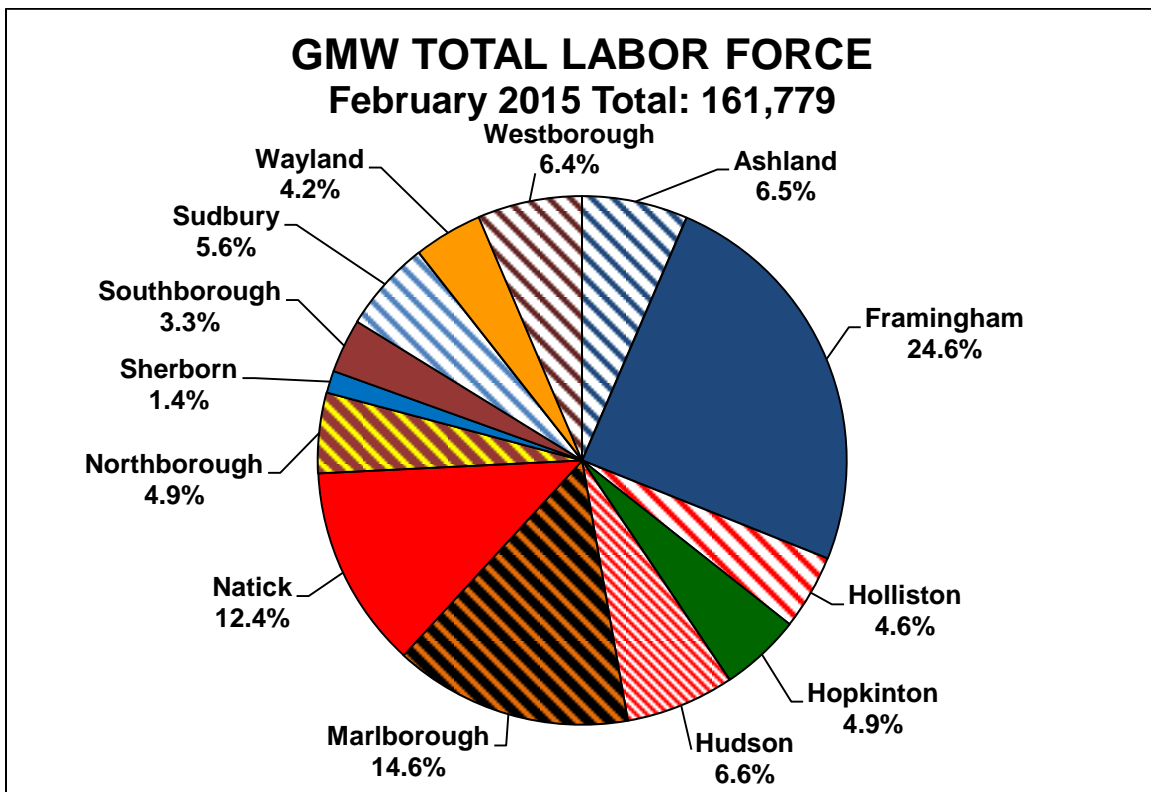
February 2015 Total: 6,396



Source: MA EOLWD and MERC

- The total number of unemployed individuals in Greater MetroWest (GMW) in February 2015 was 6,396.
- Framingham had the largest number of unemployed individuals in the entire GMW with 1,528 individuals. Marlborough and Natick followed Framingham with 1,081 and 707 unemployed individuals respectively. These three communities accounted for more than half of the total unemployed individuals in Greater MetroWest.
- Among the thirteen communities in the region, Sherborn had the lowest number of unemployed individuals with 71 individuals, followed by Southborough with 179 individuals and Wayland with 235 individuals.

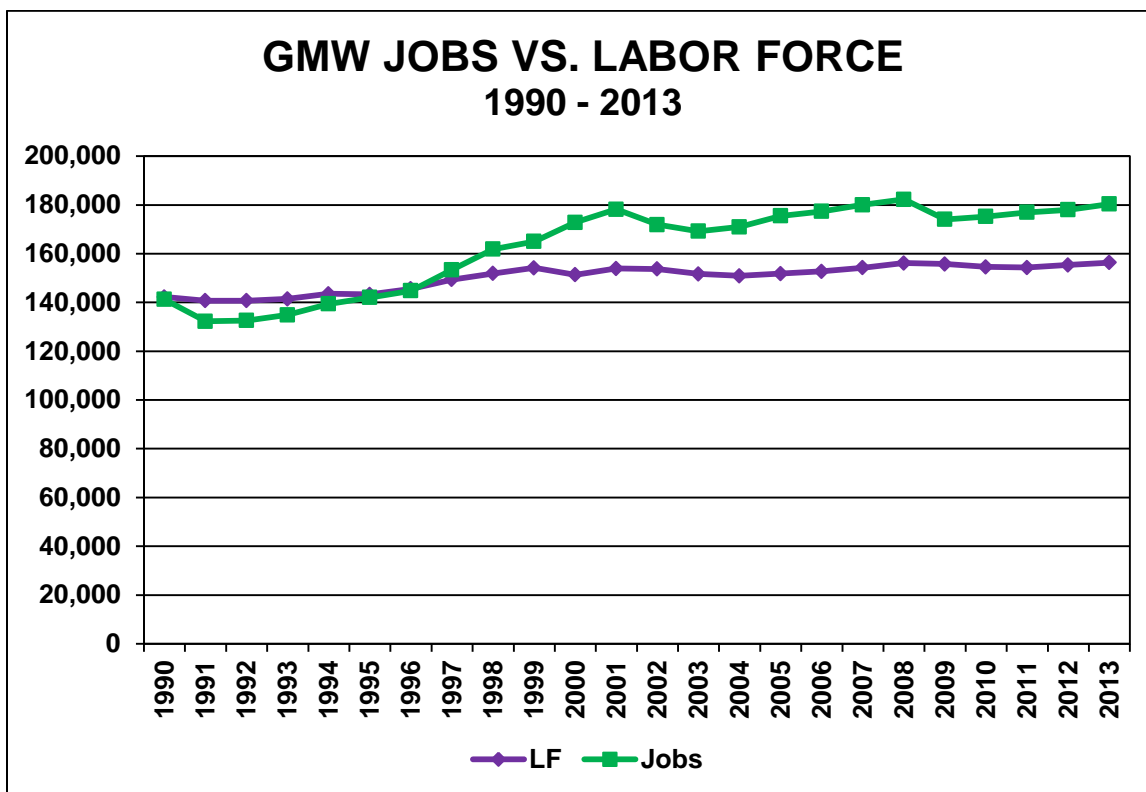
## GREATER METROWEST – UNEMPLOYMENT



Source: MA EOLWD and MERC

- In February 2015, the total number of individuals in the labor force in Greater MetroWest (GMW) was 161,779 individuals.
- The nine communities that make up MetroWest (MW) accounted for 109,136 individuals or almost two-thirds of the total labor force in GMW. The four communities that make up the Greater Marlborough Region (GMR), on the other hand, accounted for 52,643 individuals or about one-third of the total labor force in GMW.
- Among the communities in GMW, Framingham was the largest contributor to the total labor force in the region with 24.6% or 39,765 individuals. Marlborough and Natick were the next largest contributors with 14.6% or 23,592 individuals and 12.4% or 20,077 individuals, respectively. Together, the labor force in these three communities represented about half of the total labor force in GMW.
- Sherborn was the smallest contributor to the total labor force in GMW with only 1.4% or 2,197 individuals. Southborough followed Sherborn with a contribution of 3.3% or 5,350 individuals, and then came Wayland with a contribution of 4.2% or 6,811 individuals. These three communities altogether accounted for less than 9% of the total labor force in the region.

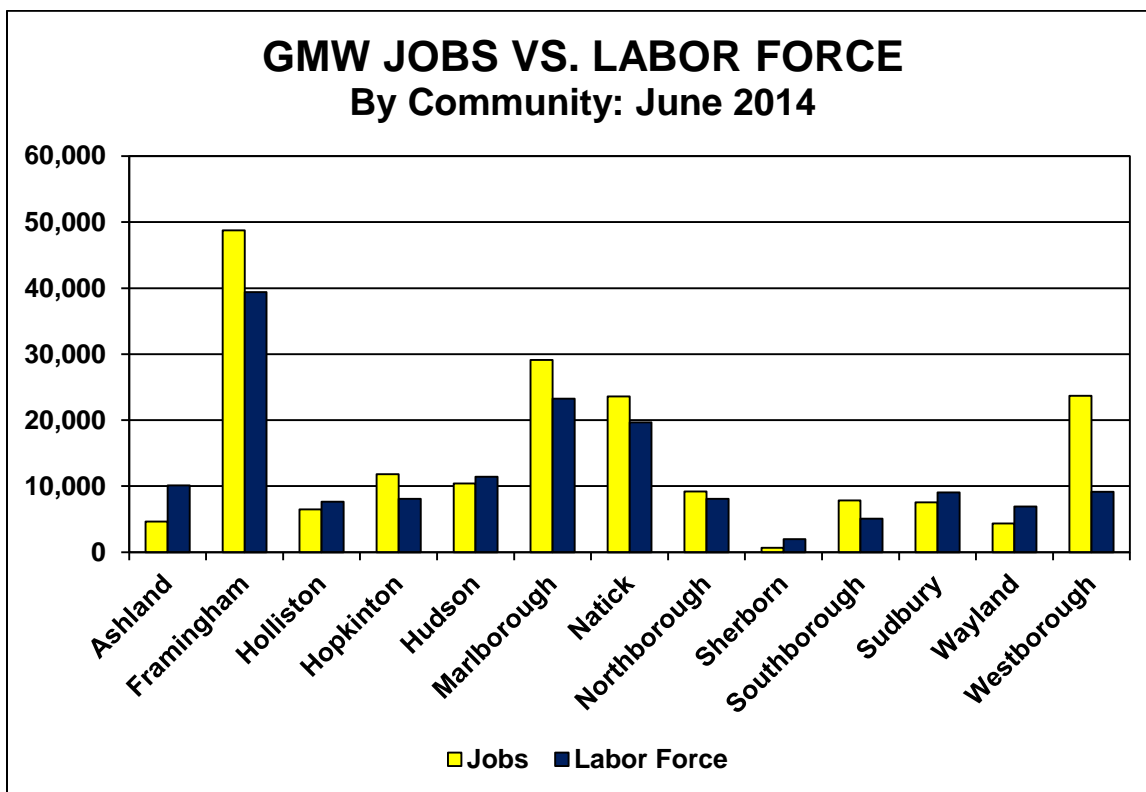
## GREATER METROWEST – UNEMPLOYMENT



Source: MA EOLWD and MERC

- The total number of jobs, depicted in green, refers to the total number of jobs in establishments located in Greater MetroWest (GMW). The total number of individuals in the labor force, depicted in purple, consists of residents in GMW that are currently employed or unemployed.
- From 1990 through 2013, the total number of jobs reached its peak in 2008 with 182,265 jobs, and the number of individuals in the labor force reached its peak in 2013 with 156,334 individuals.
- From the years 1990 through 1996, the number of jobs in GMW was less than the number of individuals in the labor force, indicating that the region was a net exporter of labor during this seven year period. From 1997 to 2013, however, the number of jobs in GMW was greater than the number of individuals in the labor force, indicating that the region was a net importer of labor.
- In 2013, the total number of jobs in GMW was 180,345, and the total number of individuals in the labor force was 156,334. During this year, there were 24,011 more jobs than individuals in the labor force.

## GREATER METROWEST – UNEMPLOYMENT



Source: MA EOLWD and MERC

- The total number of jobs, shown in yellow, is compared to the total number of individuals in the labor force, shown in blue, for each community in Greater MetroWest (GMW). Jobs refer to the number of jobs in the establishments that are located in each community while the labor force consists of all residents in each community who are either currently employed or unemployed.
- As of June 2014, there was a total of 188,101 jobs in GMW. Framingham had the highest number of jobs available during this month with 48,736 jobs. Marlborough followed Framingham with 29,104 jobs available. Westborough and Natick came next with 23,694 and 23,608 available jobs respectively. These four communities combined, were responsible for two-thirds of the total available jobs in the region.
- Framingham, Hopkinton, Marlborough, Natick, Northborough, Southborough, and Westborough had more jobs available than individuals in the labor force, indicating that these seven communities were net importers of labor.
- The remaining six communities, however, had more individuals in the labor force than number of jobs available, implying that these six communities were net exporters of labor.

## GREATER METROWEST – EMPLOYMENT

### EMPLOYMENT<sup>1</sup>

The MetroWest Economic Research Center (MERC) at Framingham State University maintains an employment database for the MetroWest CCSA™, the Greater Marlborough Region, the South Shore CCSA™, the 495/MetroWest Region, and other substate economies. MERC has documented remarkable growth in regional employment and wages as well as major changes in industrial structure and employment since 1980. For this 2015 publication MERC has developed employment data for Greater MetroWest (GMW).

MERC research relies on the Massachusetts Executive Office of Labor and Workforce Development (MA EOLWD), ES-202 series to develop time series for employment, payroll, wages and establishments in the Greater MetroWest region. ES-202 data are derived from quarterly census reports filed by all employers subject to unemployment laws, both state and federal, and cover 98% of all U.S. jobs. More than 150,000 MA employers subject to unemployment compensation laws participate in the quarterly census.

For the first time in 2002, employers were classified by industry solely in accordance with the North American Industry Classification System (NAICS). NAICS groups together establishments that use the same processes to produce goods and services. NAICS has permanently replaced the Standard Industrial Classification (SIC) system, which was in use for the previous 70 years. Because the criteria for the classification of establishments differs between NAICS and the SIC system, time series data for industrial sectors prior to 2001 cannot be provided. For a more detailed description of NAICS categories as used in this publication, please see the Appendix.

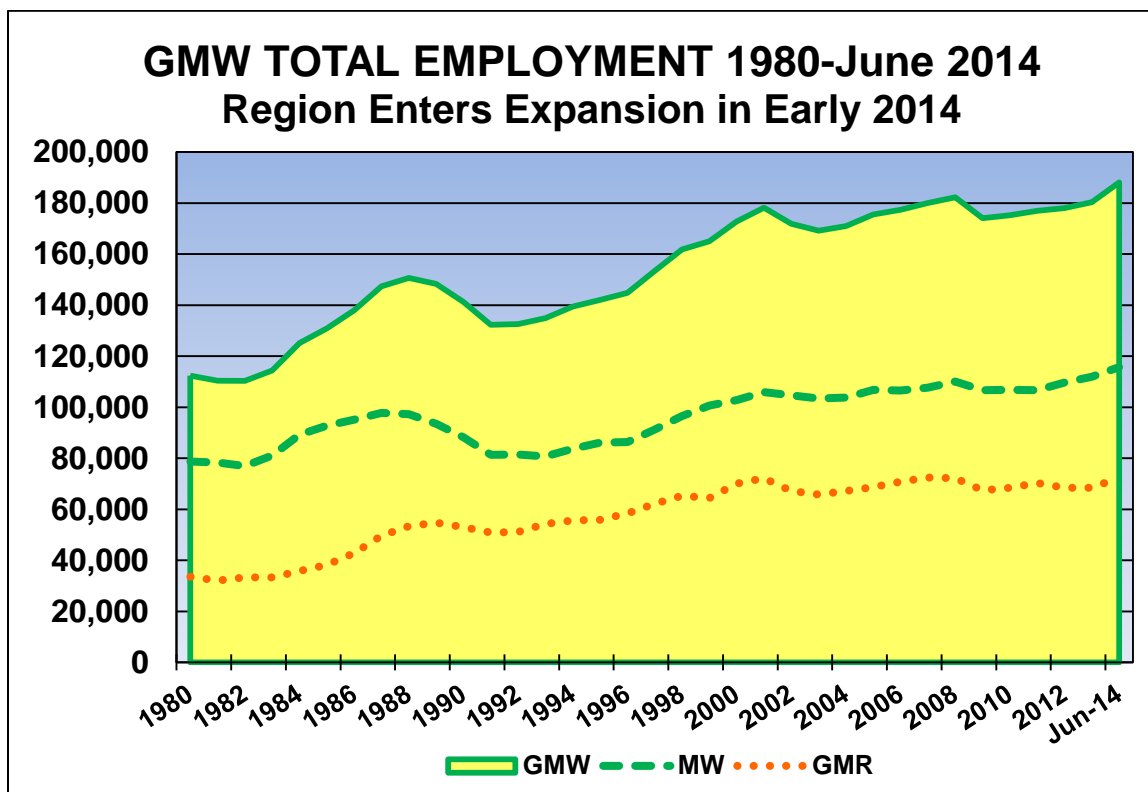
In the ES-202 series **employment** refers to the count of all persons on the payroll of establishments subject to the law, who worked full-time or part-time within the 13 communities of Greater MetroWest. Annual **payroll** includes all wages and salaries paid to covered employees including commissions, bonuses, stock options, overtime and sick pay. The **average annual wage** is derived by dividing the gross annual payroll by the average annual employment. **Establishment** or place of work refers to an economic unit that produces goods or services at a single location and is engaged in one type of economic activity. A firm therefore may have one or more establishments where work is produced. More complete definitions are included in the Appendix.

Please note that data and analysis included in this section (*Greater MetroWest - Employment*) refer to business establishments, *not* residents, located within the 13 communities. Please also note that totals may not always add due to rounding.

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<sup>1</sup>The definitions of terms are based on those in the *Handbook of U.S. Labor Statistics* (1998), *Employment and Wages in Massachusetts and the Major Metropolitan Statistical Areas Annual Averages 1993-1996*, the *North American Industry Classification System - United States, 2002*, [www.bls.gov/cew](http://www.bls.gov/cew), and MA EOLWD, *Employment and Wages by Industry and Area (ES202)*.

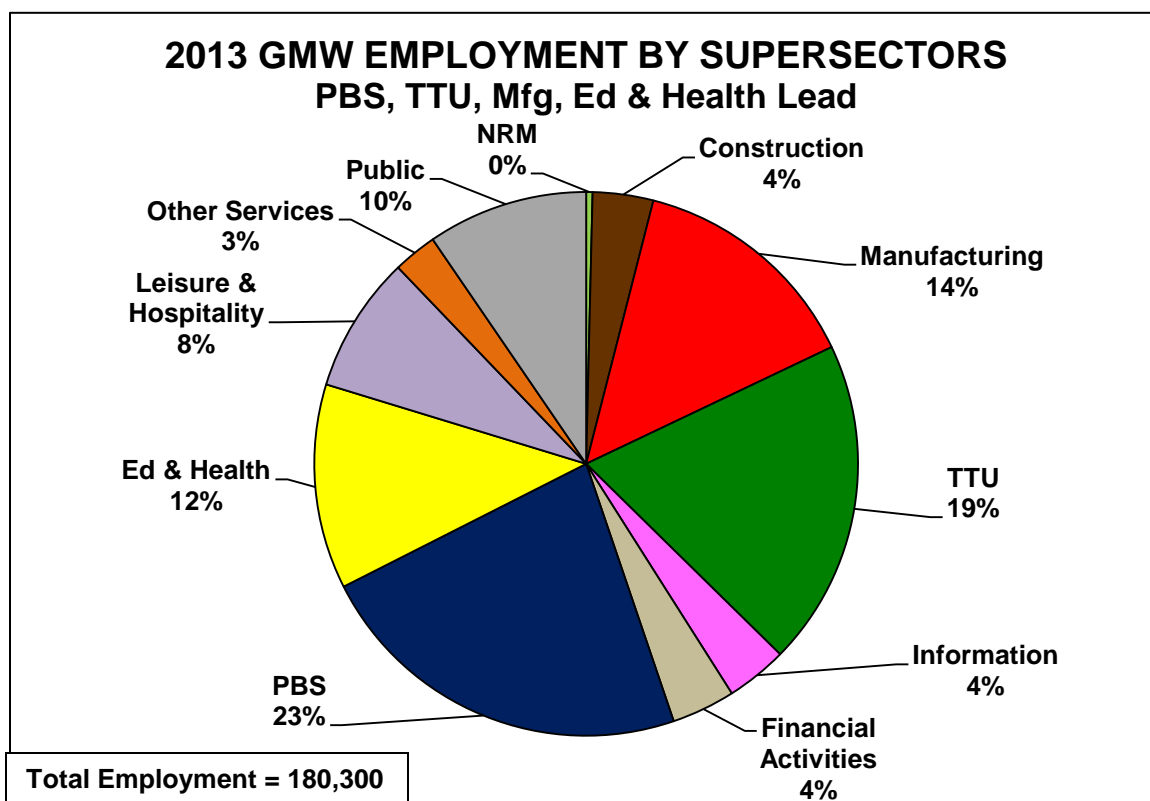
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD and MERC

- In 2013 Greater MetroWest (GMW) annual employment totaled 180,300, up 1.3% from 2012. MetroWest (MW) annual employment rose to a record 111,900, up 2.1% or 2,300 jobs from 2012. Greater Marlborough Region (GMR) annual employment remained unchanged from 2012 at 68,400 jobs.
- Entering expansion, GMW employment climbed to a new record monthly high of 188,100 jobs in June 2014, 4,000 jobs higher than in June 2013. MW also climbed to a record monthly high of 115,700 jobs in June 2014 while GMR employment reached 72,400 jobs in June 2014.
- In 1980 GMW annual employment totaled 112,400 jobs. By 2013 GMW annual employment reached 180,300 jobs, a gain of 68,000 jobs or 60% over three decades. GMW employment reached its historical annual peak in 2008 at 182,300 jobs.
- Over 33 years, GMW experienced four business cycles with peaks in 1988, 2001, 2008, and 2013 and recessions bottoming in 1982, 1991, 2003 and 2009.
- In 2013 MetroWest (MW) contributed 111,900 jobs, or 62%, of total GMW employment, while the Greater Marlborough Region (GMR) totaled 68,400 jobs, or 38% of GMW employment.

## GREATER METROWEST – EMPLOYMENT

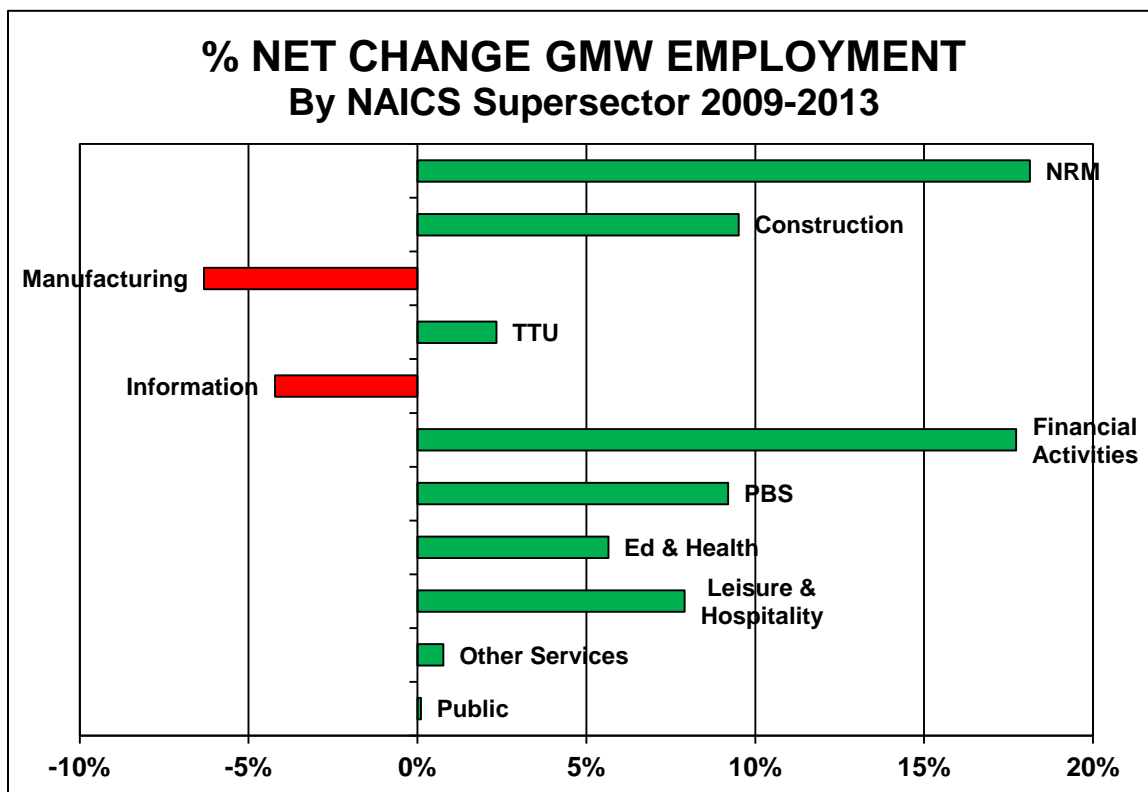


Source: MA EOLWD and MERC

- In 2013 Greater MetroWest (GMW) employment totaled 180,300 jobs, up 1.3% since 2012.
- Among all supersectors Professional and Business Services (PBS) produced the largest share of GMW employment: 23% or 41,000 jobs. Trade, Transportation and Utilities (TTU) followed with 19% or 35,000 jobs. Manufacturing generated the third largest share of jobs, 14% or 25,200 jobs, and Education & Health followed with 12% or 22,000.
- Together PBS, TTU, Manufacturing and Education & Health combined to form a diversified economic base with 123,200 jobs, two-thirds of regional employment.
- Two supersectors provided between 5% and 10% of regional employment: Public (10%) and Leisure & Hospitality (8%).
- The five remaining supersectors: Financial Activities, Information, Construction, Other Services, and Natural Resources and Mining (NRM) each contributed less than 5% of regional employment.



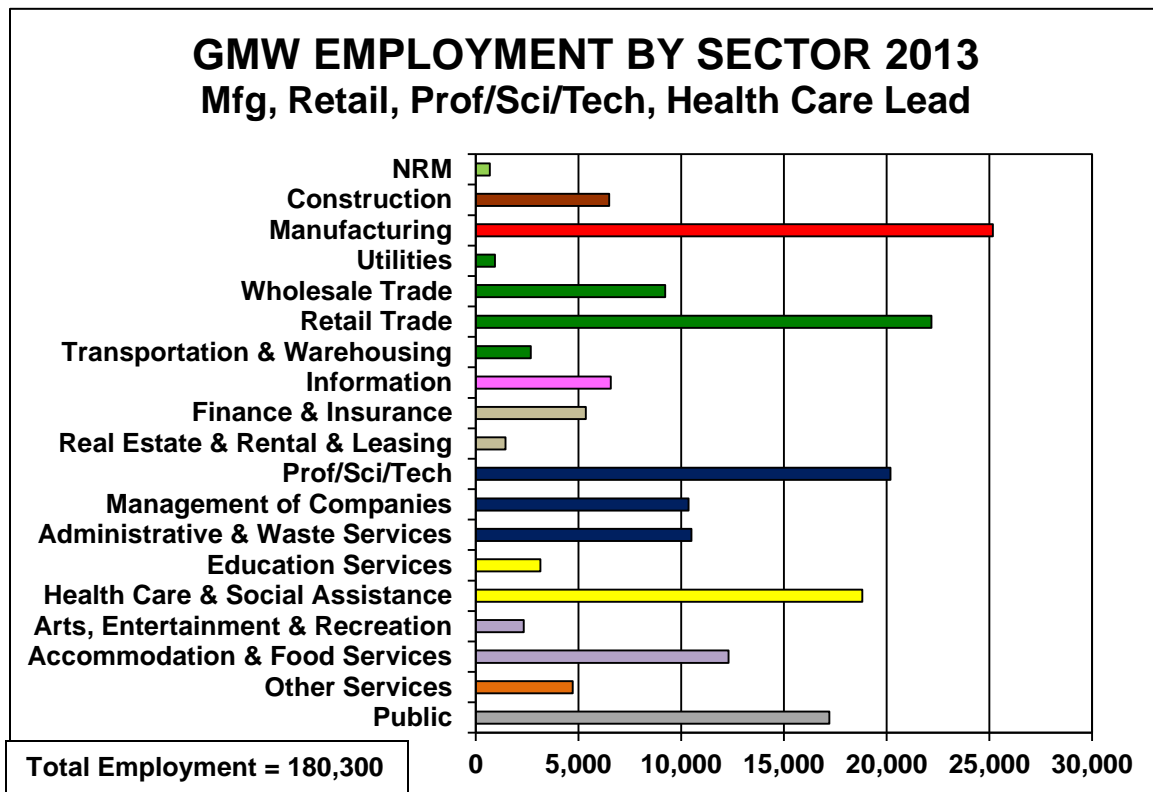
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD and MERC

- Total employment in Greater MetroWest (GMW) grew from 174,100 jobs in 2009 to 180,300 in 2013, a gain of 6,300 jobs, or 3.6%.
- Among all supersectors Natural Resources and Mining (NRM) added 100 jobs, a gain of 18.1%, the largest percentage gain. Financial Activities followed, up 1,030 jobs, or 17.7%. Only these two supersectors had percentage gains exceeding 10%.
- Professional and Business (PBS) led all supersectors in absolute gains, adding 3,460 jobs or 9.2%.
- From 2009 to 2013 seven supersectors gained employment: Construction (560 jobs, or 9.5%), Professional & Business Services (PBS) (3,460 jobs, or 9.2%), Leisure & Hospitality (1,070 jobs, or 7.9%), Education & Health (1,175 jobs, or 5.6%), Trade, Transportation & Utilities (TTU) (800 jobs, or 2.3%), Other Services (36 jobs, or 0.8%), and Public (18 jobs, 0.1%)..
- Two supersectors lost jobs from 2009 to 2013 including the two highest wage supersectors, Manufacturing and Information. Manufacturing experienced the largest absolute decline, losing 1,700 jobs, or -6.3%. Information also fell, declining by 300 jobs, or -4.2%.

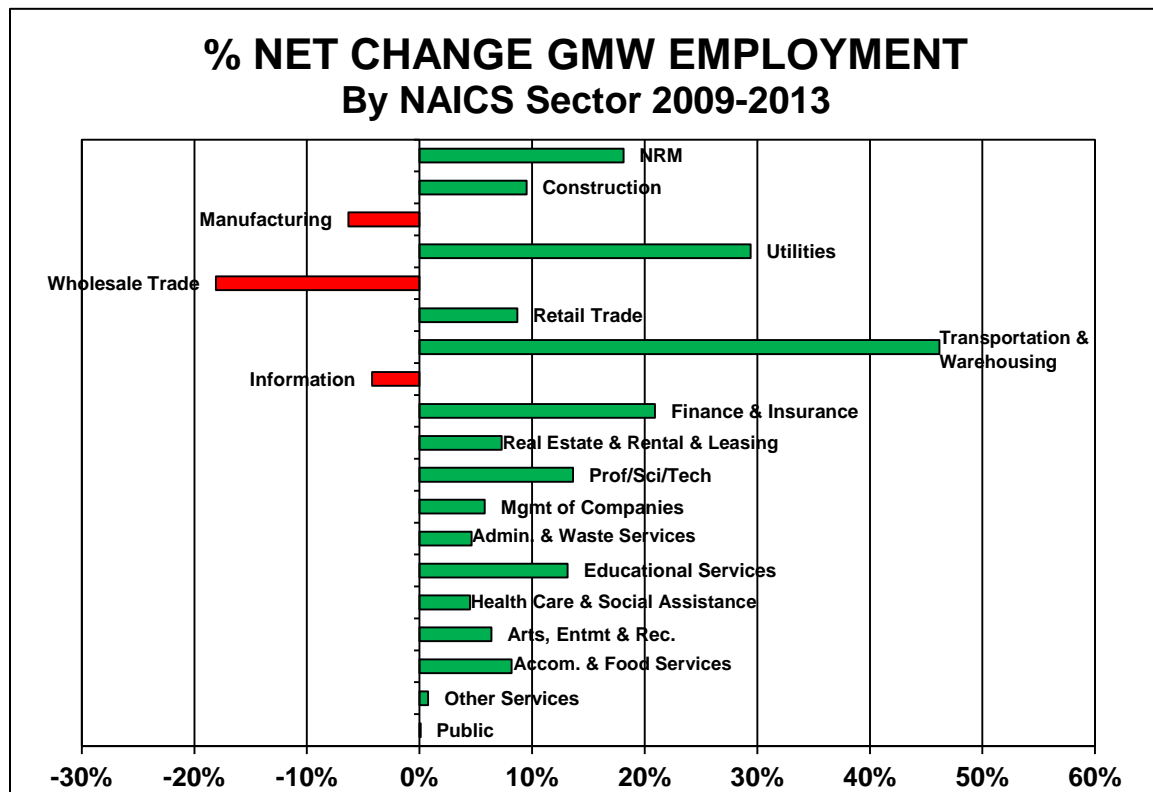
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD and MERC

- In 2013 Greater MetroWest (GMW) employment totaled 180,300 jobs, up 1.3% from 2012.
- The five largest NAICS sectors: Manufacturing, Retail Trade, Professional, Scientific and Technical (Pro/Sci/Tech), Health Care and Social assistance, and Public produced 103,500 jobs or 57% of total GMW employment.
- Manufacturing, the largest sector, generated 25,200 jobs, or 14% of GMW jobs. Retail Trade, the second largest sector, provided 22,200 jobs, or 12.3%. Professional, Scientific & Technical Services (Prof/Sci/Tech) produced 20,200 jobs or 11.2% followed by Health Care & Social Assistance, 18,800 jobs or 10.4%. Finishing up the top five sectors, Public generated 17,200 jobs or 9.5% of GMW employment.
- Four sectors contributed between 9,00 and 13,000 jobs: Accommodation & Food Services (12,300 jobs or 6.8%), Administrative & Waste Services (10,500 jobs or 5.8%), Management of Companies (10,400 jobs or 5.7%), and Wholesale Trade (9,200 jobs or 5.1%).
- The remaining ten sectors each produced fewer than 7,000 jobs in GMW.

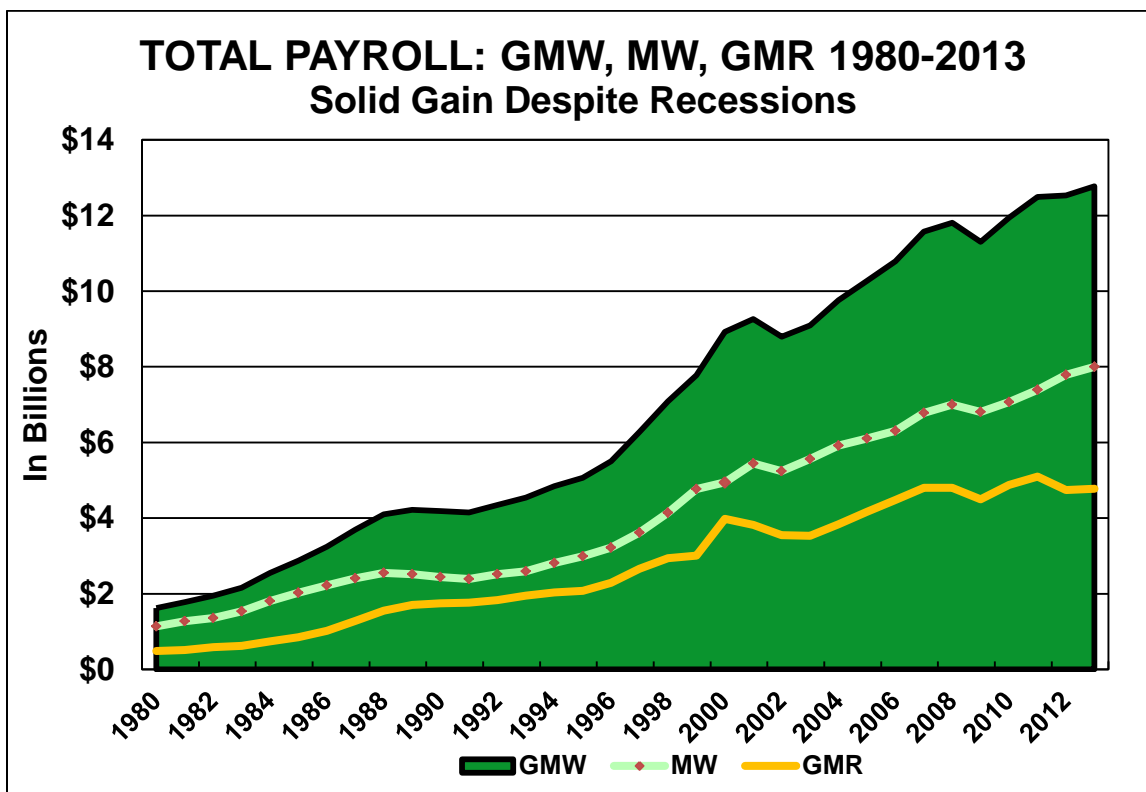
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD and MERC

- Total employment in the Greater MetroWest region (GMW) grew from 174,100 in 2009 to 180,300 in 2013, a gain of 3.6%.
- Three NAICS sectors increased employment by more than 20%: Transportation and Warehousing (46%), Utilities (29%), and Finance and Insurance (21%).
- Three sectors: Natural Resources and Mining (NRM), Professional, Scientific and Technical Services (Prof/Sci/Tech), and Educational Services all had a 10 to 20% gain in jobs, while ten remaining sectors had 0 to 10% gains in jobs.
- Professional, Technical and Scientific Services led all sectors in absolute gain in employment, up 2,400 jobs, followed by Retail Trade, up 1,800.
- Three sectors lost jobs from 2009-2013 including the two highest wage sectors, Manufacturing and Information. However, Wholesale Trade led the way with the largest absolute and percentage decline, losing 2,000 jobs, or -18.1%. Manufacturing followed losing 1,700 jobs, or -6.3%. Information also fell, declining by 300 jobs, or -4.2%.

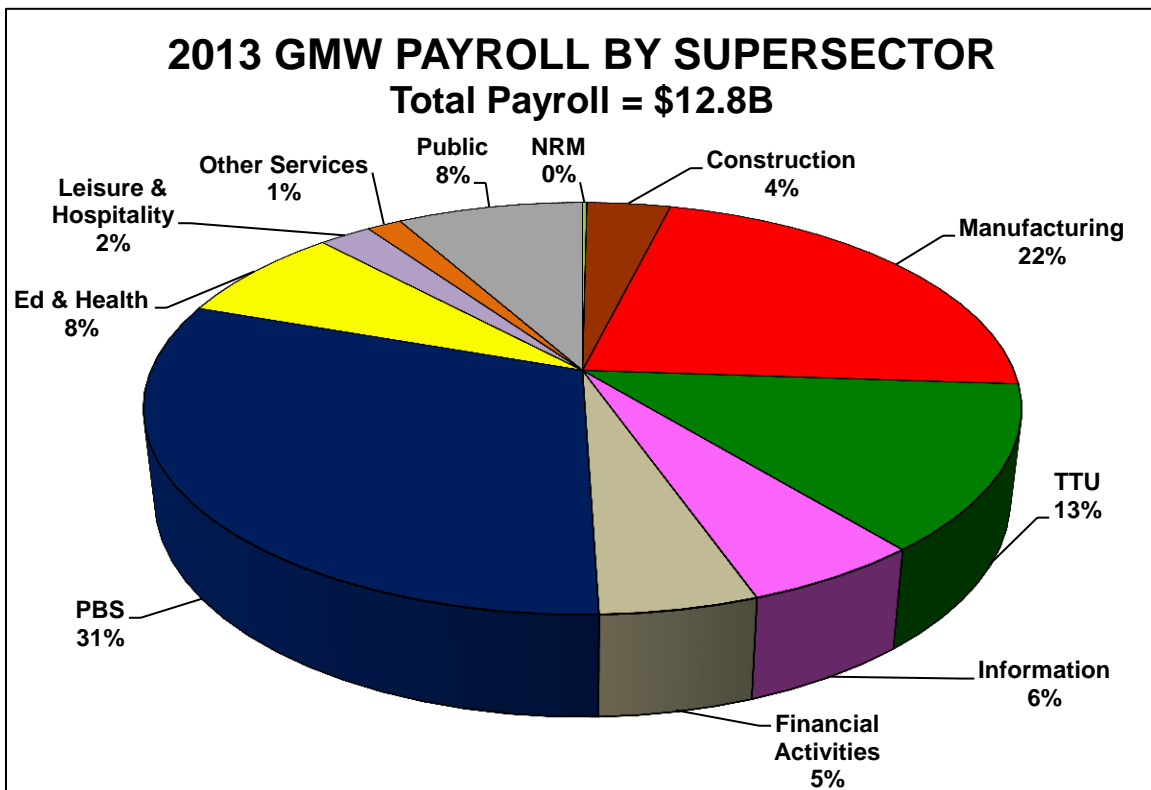
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- In 2013 Greater MetroWest (GMW) payroll totaled a record \$12.8 billion, up 1.9% from 2012.
- Greater MetroWest (GMW) total payroll climbed from \$1.6 billion in 1980 to a record \$12.8 billion in 2013, up \$11.2 billion or 688%. During these 33 years, GMW total payroll rose eight fold. Two sharp declines occurred in 2002 and 2009, both during recessions.
- MetroWest (MW) total payroll rose from \$1.1 billion in 1980 to a record \$8 billion in 2013. MW total payroll increased gradually with declines occurring in the recession years of 1989-1991, 2002, and 2009.
- Greater Marlborough Region (GMR) total payroll climbed from \$485 million in 1980 to \$4.8 billion in 2013. GMR total payroll rose steadily with declines in 2001-03, 2009, and 2012.
- In 2013 MetroWest (MW) comprised 63% or \$8 billion of total payroll compared to the Greater Marlborough Region (GMR) with 37% or \$4.8 billion. Over three decades MetroWest has always contributed the larger share of payroll in GMW.

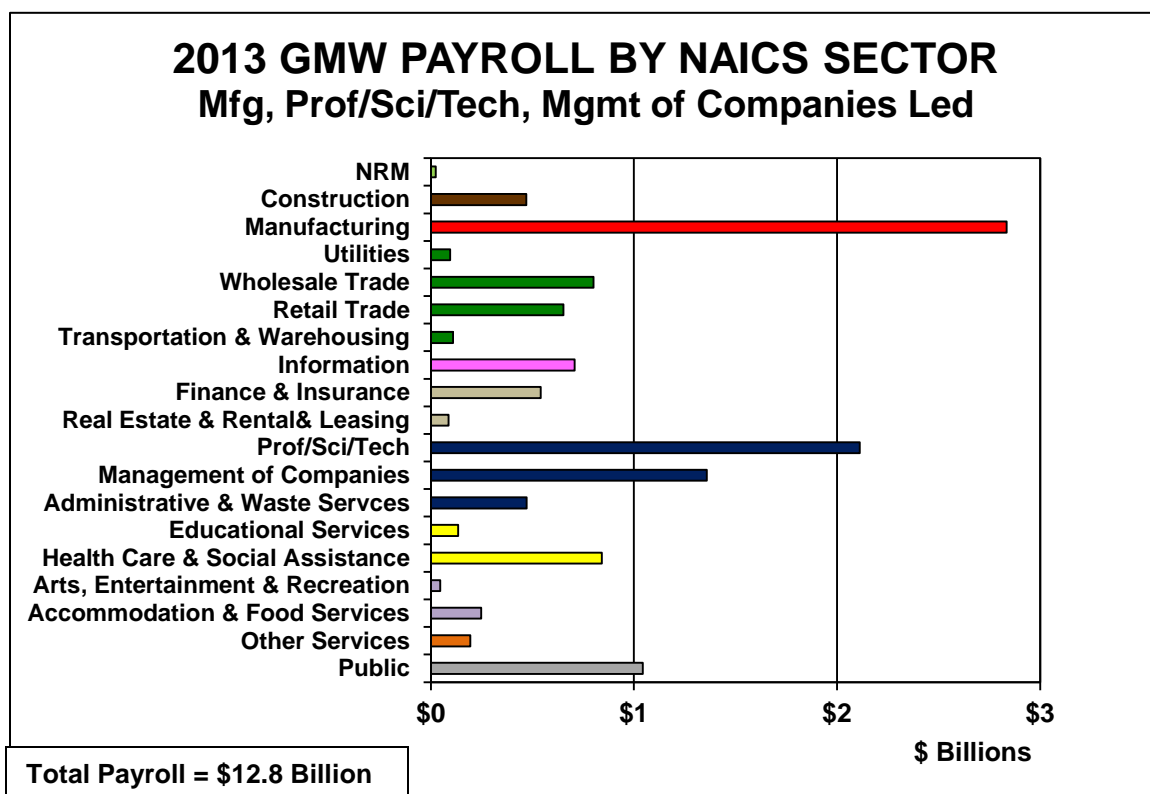
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD and MERC

- In 2013 Greater MetroWest (GMW) payroll recorded a historical high of \$12.8 billion, increasing by \$242 million, or 1.9% from 2012.
- Three supersectors dominated GMW payroll in 2013. Professional and Business Services (PBS), the largest supersector in employment also contributed the largest share of payroll, \$3.9 billion (31%). Manufacturing, third largest employer, produced \$2.8 billion (22%) of regional payroll. Trade, Transportation & Utilities (TTU) provided \$1.7 billion (13%) of regional payroll. Combined, these three supersectors generated \$8.4 billion, two-thirds of regional payroll.
- Three supersectors produced between 5 to 10% of regional payroll: Public (\$1 billion or 8%), Education & Health (\$977 million or 8%), and Information (\$708 million or 6%).
- The remaining supersectors: Financial Activities, Construction, Leisure & Hospitality, Other Services, and Natural Resources & Mining (NRM) each contributed less than 5% of total regional payroll.

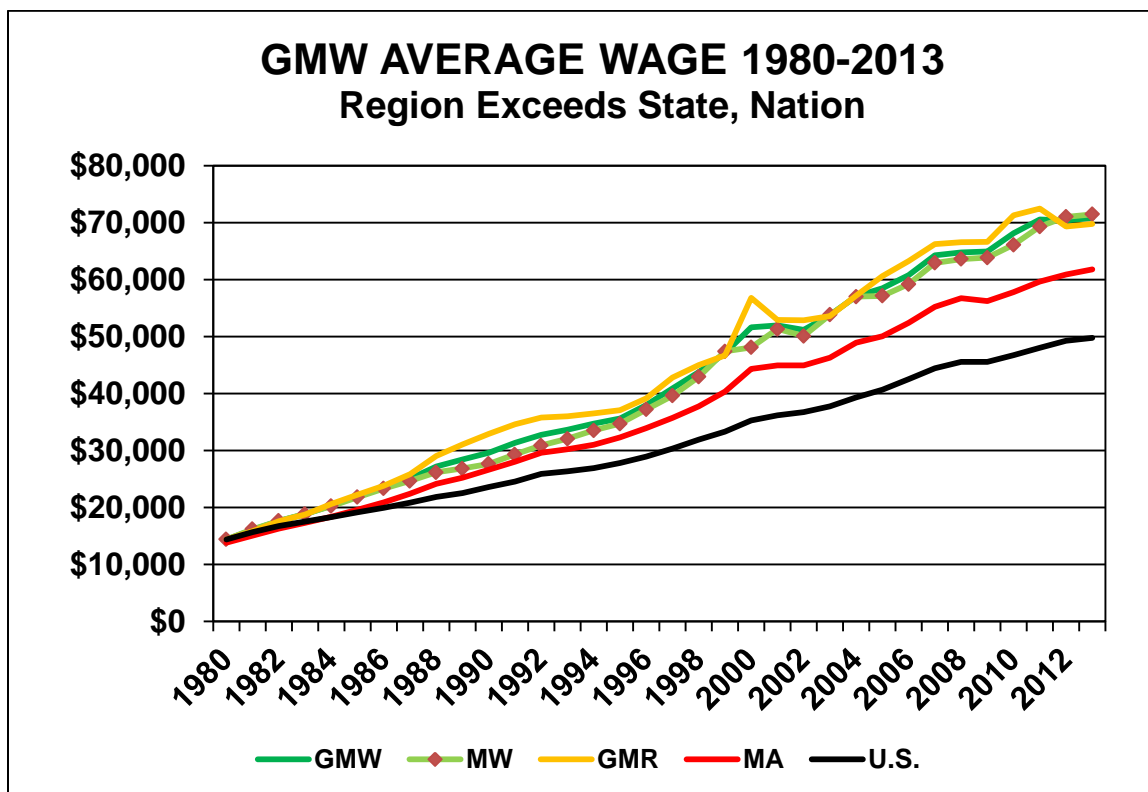
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD and MERC

- In 2013 Greater MetroWest (GMW) payroll totaled \$12.8 billion, up 1.9% from 2012.
- Among the NAICS sectors Manufacturing produced the largest share of payroll in the GMW region at \$2.8 billion, or 22.2%. Professional, Scientific and Technical Services (Prof/Sci/Tech) generated the second largest share of regional payroll at \$2.1 billion, or 16.5%, followed by Management of Companies at 1.4 billion, or 10.6%, and Public at \$1 billion, or 8.2%.
- The top four payroll sectors: Manufacturing, Prof/Sci/Tech, Management of Companies, and Public produced a combined payroll of \$7.3 billion or 58% of the region's total payroll.
- Five sectors: Health Care & Social Assistance, Wholesale Trade, Information, Retail Trade, and Finance & Insurance each contributed between \$500 million and \$1 billion in payroll.
- The remaining sectors each produced less than \$500 million in payroll.

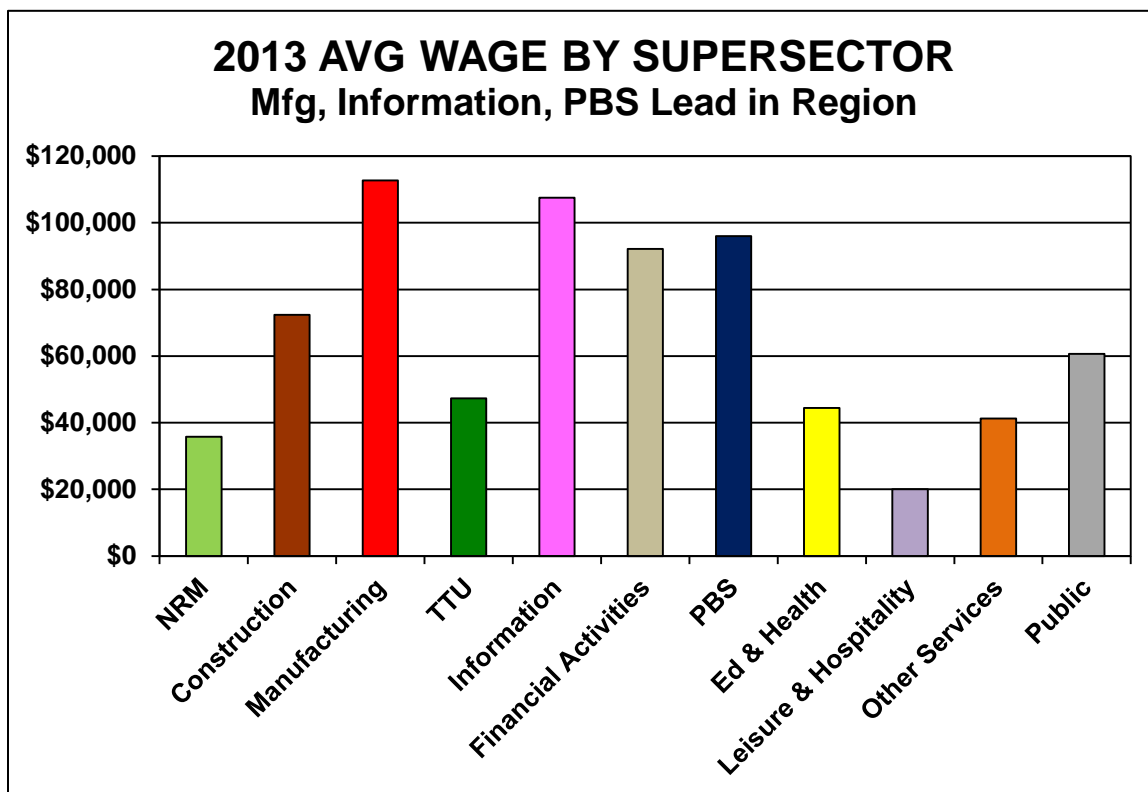
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD and MERC

- The average annual wages in the nation, state and regions shown have steadily increased from 1980-2013.
- In 1980 the average annual wages of Greater MetroWest (GMW), MetroWest (MW), the Greater Marlborough Region (GMR), Massachusetts (MA), and the United States (U.S.) were between \$13,800 and \$14,400.
- By 2013 MW led with an average annual wage of \$71,500, followed by GMW at \$70,800, GMR at \$69,800, MA at \$61,800 and U.S. at \$49,800.
- The GMW average annual wage in 2013 exceeded the state average wage by \$9,000 or 14.6% and the U.S. average wage by \$21,000 or 42.2%.
- Over the three decades, the average wage in MW rose 396%, followed by GMW (391%), GMR (384%), MA (347%) and the U.S. (246%).

## GREATER METROWEST – EMPLOYMENT

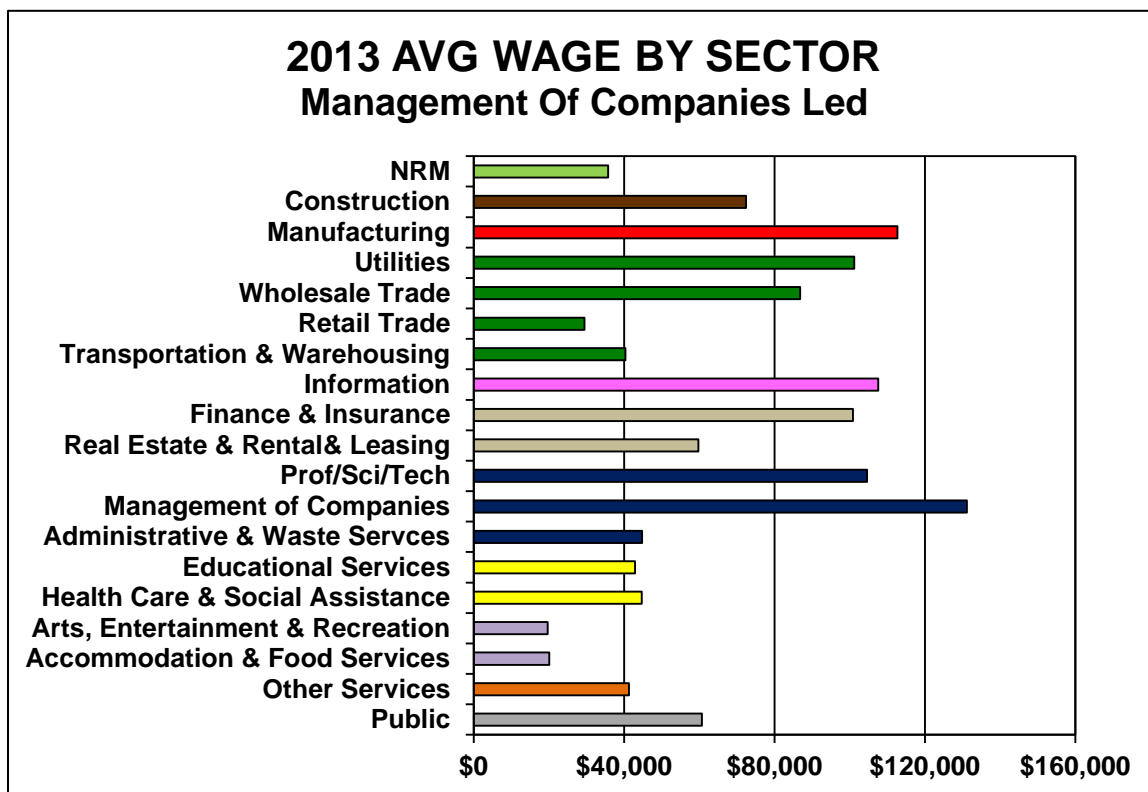


Source: MA EOLWD and MERC

- In 2013 the average annual wage for Greater MetroWest (GMW) was \$70,800, up \$500 or 0.6% from 2012.
- Among all supersectors, Manufacturing generated the highest average annual wage, \$112,700. Information offered the region's second highest wage, \$107,600, followed by Professional and Business Services (PBS), \$96,000, Financial Activities, \$92,100, and Construction, \$72,400.
- Four supersectors: Trade, Transportation and Utilities (TTU), Education & Health, Other Services, and Public all produced average annual wages between \$40,000 and \$61,000.
- Among all supersectors Leisure & Hospitality posted the lowest average annual wage, \$20,000, in the region. Natural Resources & Mining (NRM) offered the next lowest wage, \$35,800.



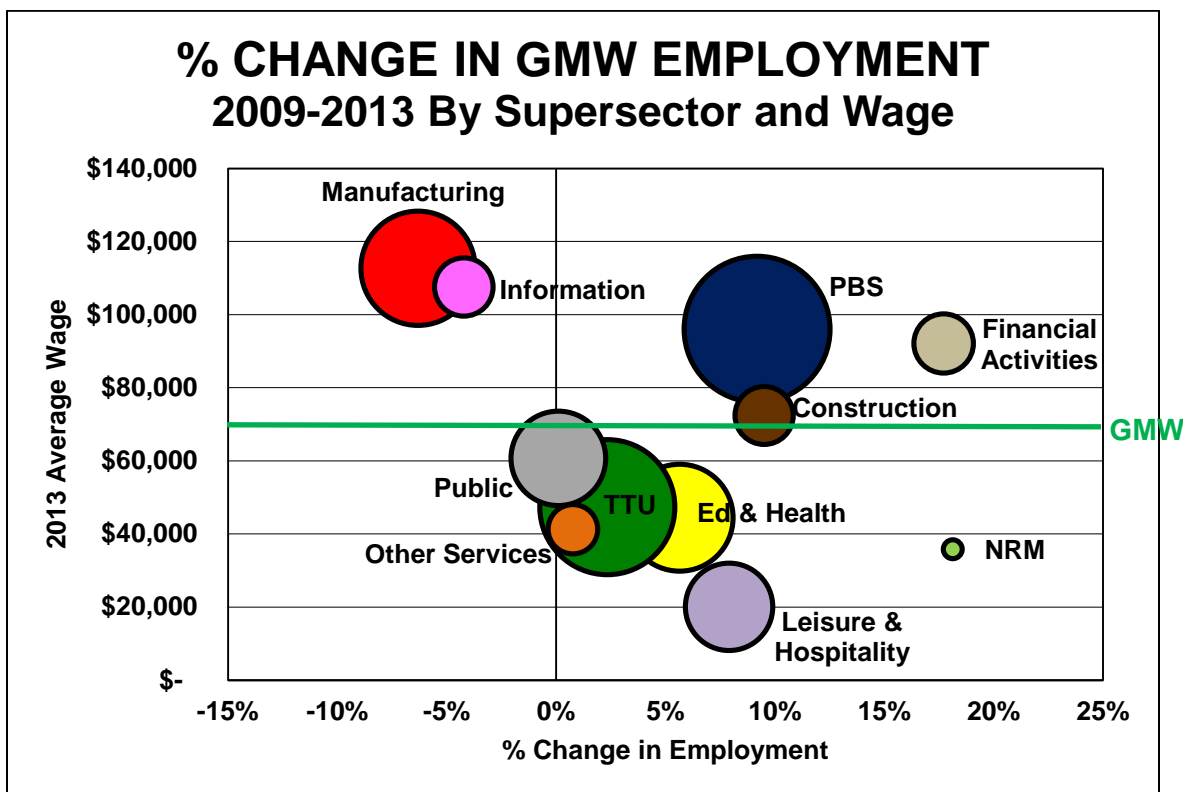
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD and MERC

- In 2013, the average wage for the Greater MetroWest (GMW) was \$70,800.
- Among all NAICS sectors Management of Companies posted the highest average annual wage in GMW, \$131,200. Average wages in five more sectors exceeded \$100,000: Manufacturing (\$112,700), Information (\$107,600), Professional, Scientific and Technical Services (Prof/Sci/Tech) (\$104,600), Utilities (\$101,200), and Finance & Insurance (\$100,900).
- Four sectors recorded an average annual wage between \$58,000 and \$100,000: Wholesale Trade (\$86,900), Construction (\$72,400), Public (\$60,700), and Real Estate, Rental & Leasing (\$59,800).
- Five sectors offered an average wage between \$40,000 and \$45,000: Transportation & Warehousing, Other Services, Educational Services, Health Care & Social Assistance, and Administrative & Waste Services.
- The remaining four sectors each offered an average annual wage less than \$40,000: Arts, Entertainment, & Recreation, Accommodation & Food Services, Retail Trade, and Natural Resources & Mining (NRM). Arts, Entertainment & Recreation offered the lowest wage, \$19,700.

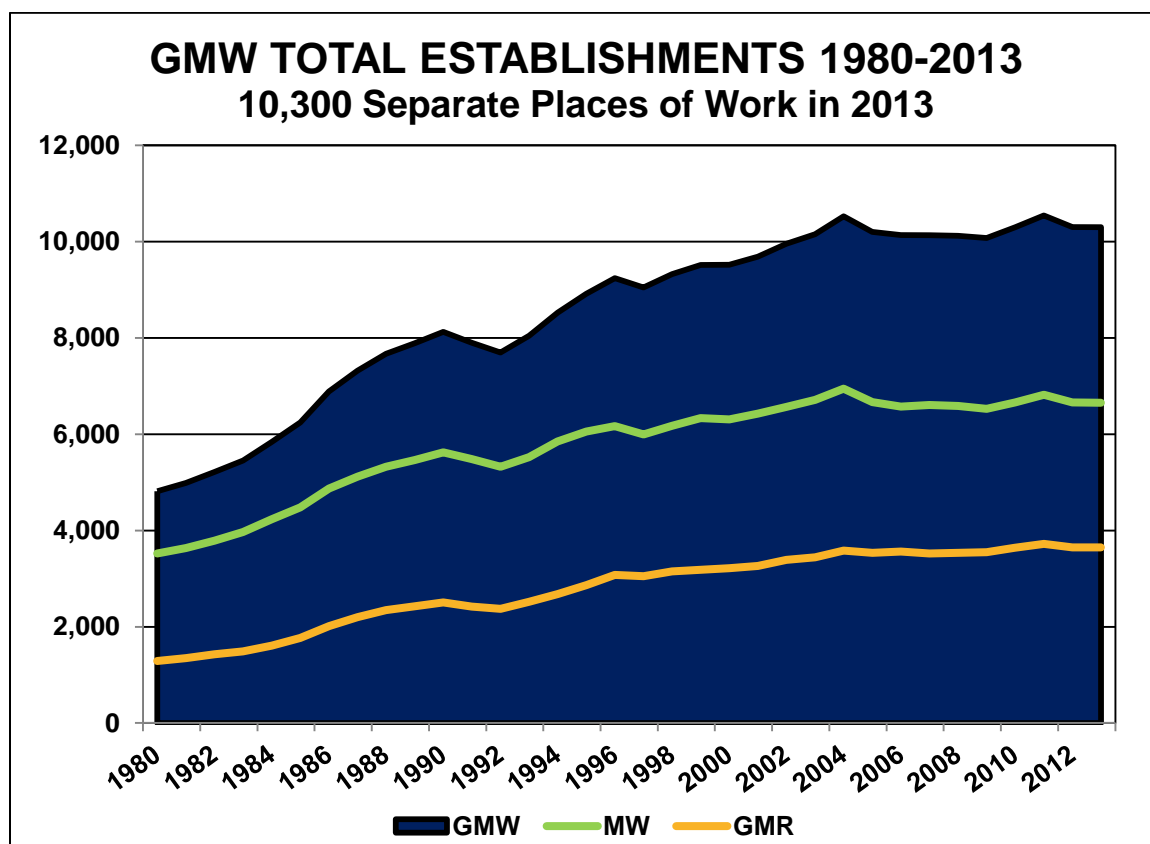
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD and MERC

- The above graph compares percent change in Greater MetroWest (GMW) annual employment by supersector from 2009 until 2013 (x axis) with the 2013 average wage of each supersector (y axis). In 2013 the GMW average wage stood at a record \$70,800. Circle size reflects the relative number of jobs in each supersector.
- The two highest wage supersectors in GMW lost jobs from 2009-2013. Manufacturing (MFG) employment fell 6% and Information fell 4%.
- Eight of the remaining supersectors gained employment. Of these, three supersectors offered average wages above the GMW average wage and five supersectors offered average wages below the regional wage.
- Employment in Professional and Business Services (PBS), Financial Activities, and Construction, three supersectors with wages exceeding the regional average wage, rose by 9 to 18%.
- Comparing employment in the six supersectors with wages below the GMW average wage, Natural Resources and Mining (NRM) employment rose 18%, followed by Leisure and Hospitality (8%), Education and Health (6%), Trade, Transportation, and Utilities (TTU) (2%), and Other Services up 1%. Employment in the Public supersector remained unchanged.

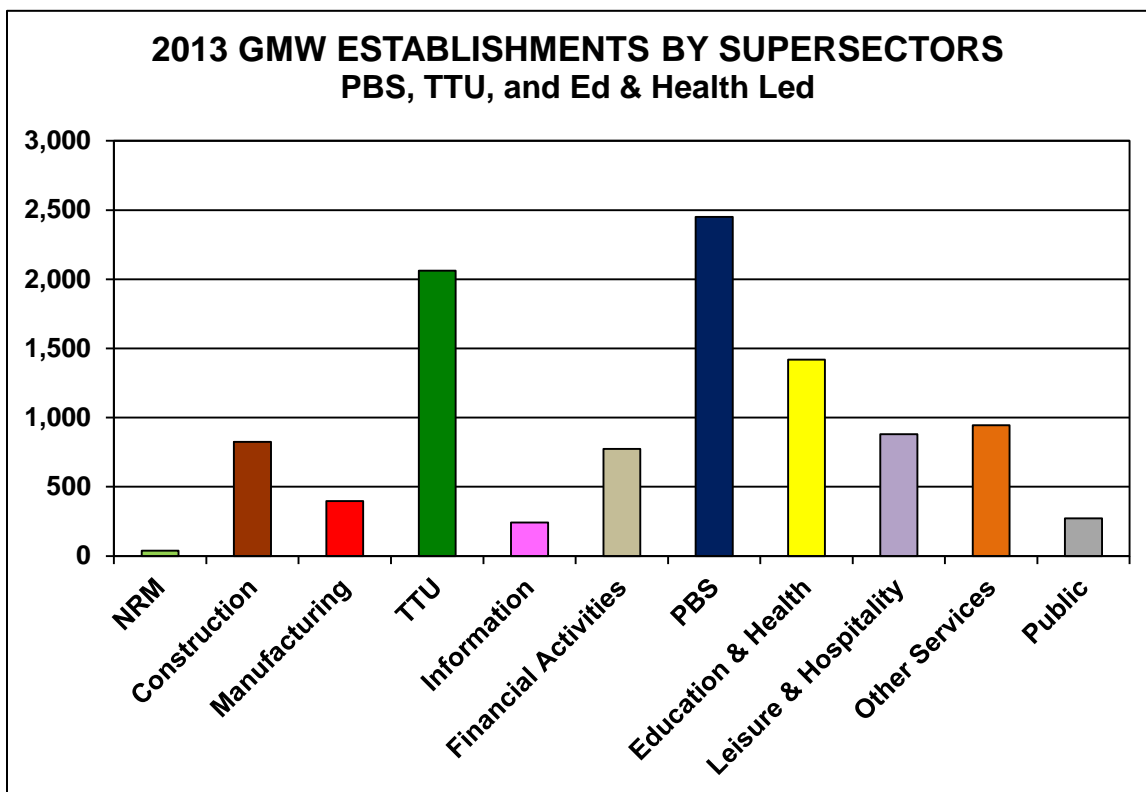
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- In 2013 Greater MetroWest region (GMW) establishments or separate places of work totaled 10,300, unchanged from 2012.
- From 1980 to 2013 the number of GMW establishments rose from 4,800 to 10,300, a 114% increase over the period.
- GMW establishments peaked in 2011 at 10,550, only 20 establishments higher than the previous peak of 10,530 in 2004. For the past 12 years the total number of GMW establishments has remained relatively flat.
- In 2013 MetroWest (MW) establishments totaled 6,660, and Greater Marlborough Region (GMR) establishments totaled 3,650, both unchanged from 2012.
- MW establishments comprised 65% of GMW establishments in 2013 while GMR comprised 35% of regional establishments.

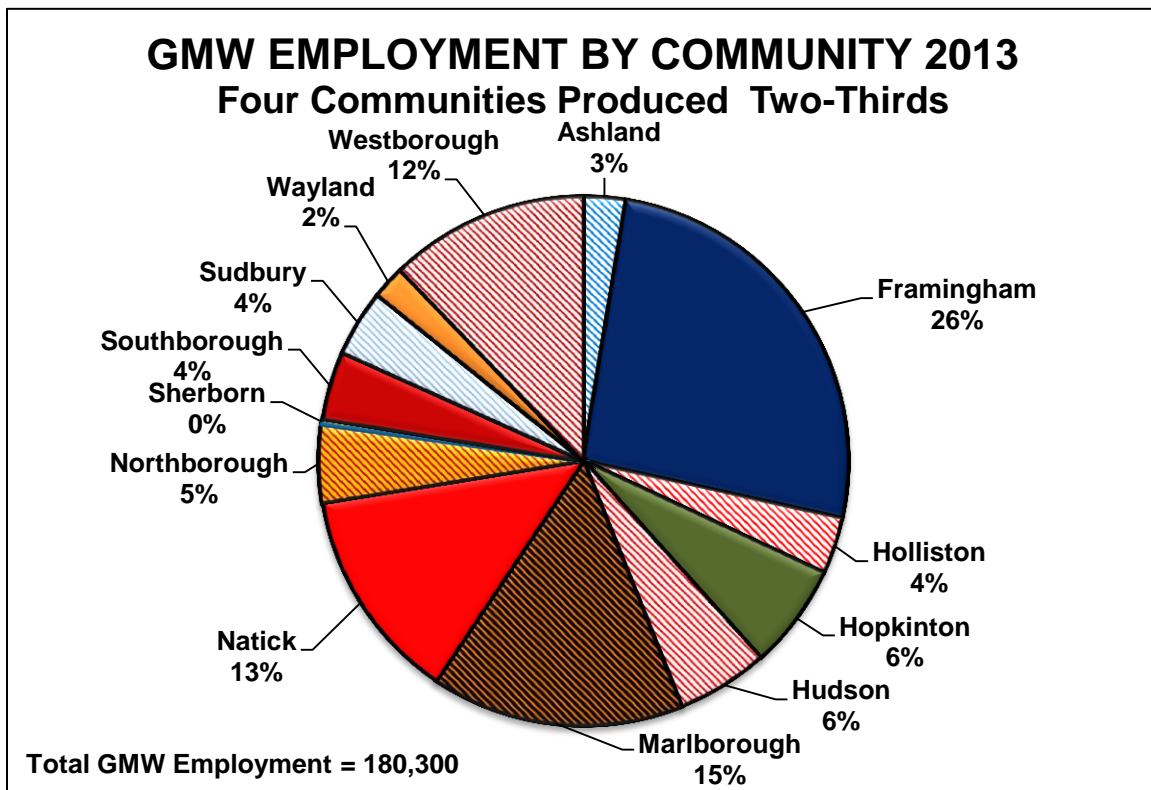
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD and MERC

- In 2013 the total number of establishments or separate places of work for the Greater MetroWest Region (GMW) remained stable at 10,300 establishments.
- Three NAICS supersectors provided 58% of all establishments in GMW. Professional and Business Services (PBS) led with 2,450 establishments, followed by Trade, Transportation & Utilities (TTU) with 2,060 and Education & Health with 1,420 establishments.
- Manufacturing, the third largest supersector in terms of employment and second in payroll, ranked eighth in establishments with 400.
- Four other supersectors: Construction, Financial Activities, Leisure & Hospitality, and Other Services each reported establishments between 500 and 1,000. Together these four supersectors provided 33% of GMW establishments.
- The remaining four supersectors each contributed fewer than 410 establishments.

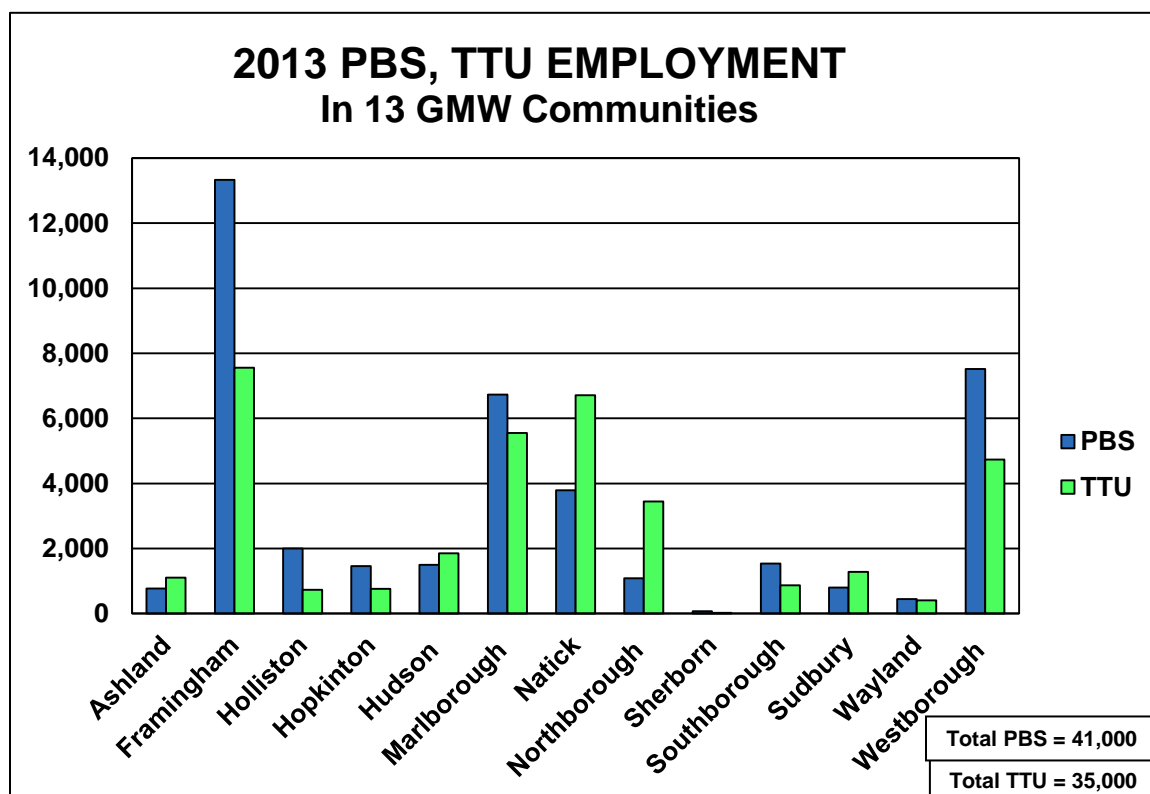
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD and MERC

- In 2013 employment in Greater MetroWest (GMW) totaled 180,300 jobs, up 1.3% since 2012.
- Among the 13 GMW communities, four communities produced 67% or two-thirds of the region's total employment: Framingham, Marlborough, Natick, and Westborough.
- Among all the communities in GMW in 2013, Framingham provided the largest share of employment with 26% or 46,600 jobs.
- Marlborough provided the second largest share of jobs with 15% or 27,900.
- Natick provided 13% or 23,600 jobs, followed by Westborough with 12% or 22,000 jobs.
- The remaining nine communities: Ashland, Holliston, Hopkinton, Hudson, Northborough, Sherborn, Southborough, Sudbury, and Wayland, each contributed less than 7% of regional employment.

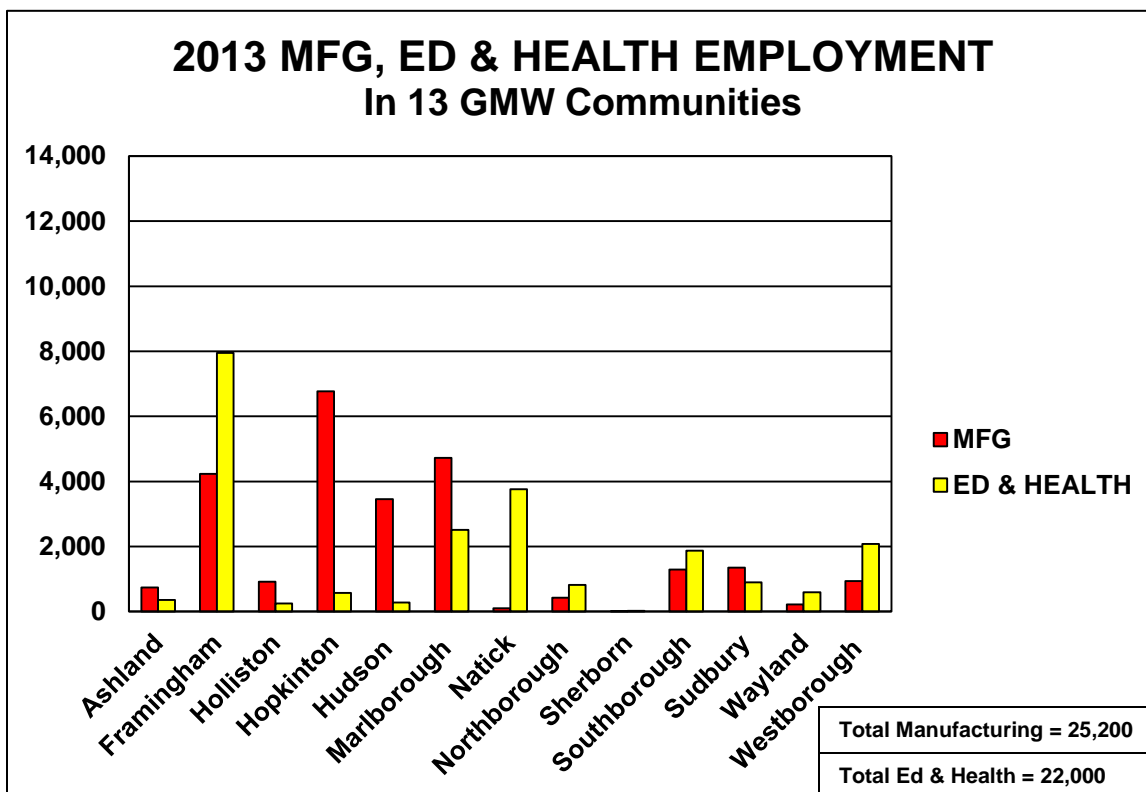
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD and MERC

- Professional and Business Services (PBS), the largest Greater MetroWest (GMW) supersector in employment, provided 41,000 jobs, 22.8% of total GMW employment. Trade, Transportation & Utilities (TTU) produced the second highest level of GMW employment with 35,000 jobs or 19.4%.
- Four communities: Framingham, Westborough, Marlborough, and Natick combined generated over three-fourths of PBS regional employment. Framingham led with 13,330 jobs or 33%, followed by Westborough (7,500 or 18%), Marlborough (6,700 or 16%) and Natick (3,800 or 9%).
- TTU employment was more evenly distributed within the region. Five communities produced four-fifths of regional TTU employment. Framingham led with 7,600 jobs or 22% followed Natick (6,700 or 19%), Marlborough (5,600 or 16%), Westborough (4,700 or 14%) and Northborough (3,400 or 10%).
- Highest among the thirteen communities in both PBS and TTU employment, Framingham generated nearly twice as many jobs in PBS, 13,300, as in TTU, 7,600, in 2013.
- With the exception of Northborough's TTU employment, the remaining communities each had fewer than 2,100 jobs in PBS or TTU in 2013.

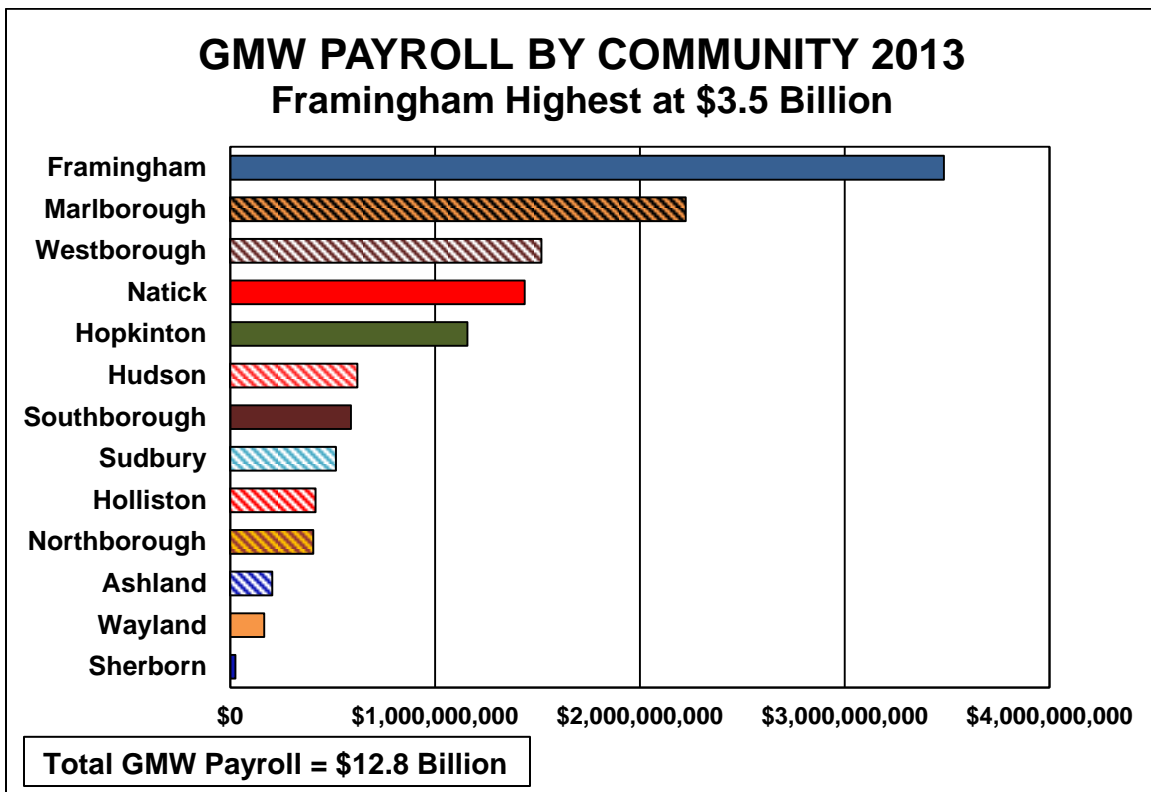
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD and MERC

- In 2013 Manufacturing, the third highest supersector in the Greater MetroWest region (GMW) in employment, accounted for 25,200 jobs, or 14.0% of total regional employment. Fourth highest, Education & Health followed with 22,000 jobs, or 12.0% of total regional employment.
- Among the thirteen GMW communities in 2013, Hopkinton generated the largest number of Manufacturing jobs, (6,700, or 29.6%), followed by Marlborough, (4,700 or 18.8%), Framingham (4,200 jobs, or 16.8%) and Hudson (3,500 jobs, or 13.7%). Together these four communities produced over three-fourths of regional Manufacturing employment.
- In Education & Health, Framingham produced the greatest number of jobs (8,000 or 36.2%), followed by Natick (3,700 or 17.1%). Together these two communities provided over half of regional employment in Education & Health. Marlborough, Southborough and Westborough followed with each providing between 8 to 12% of regional Education & Health employment.
- Seven communities each contributed fewer than 1,000 jobs to Manufacturing or Education & Health.

## GREATER METROWEST – EMPLOYMENT

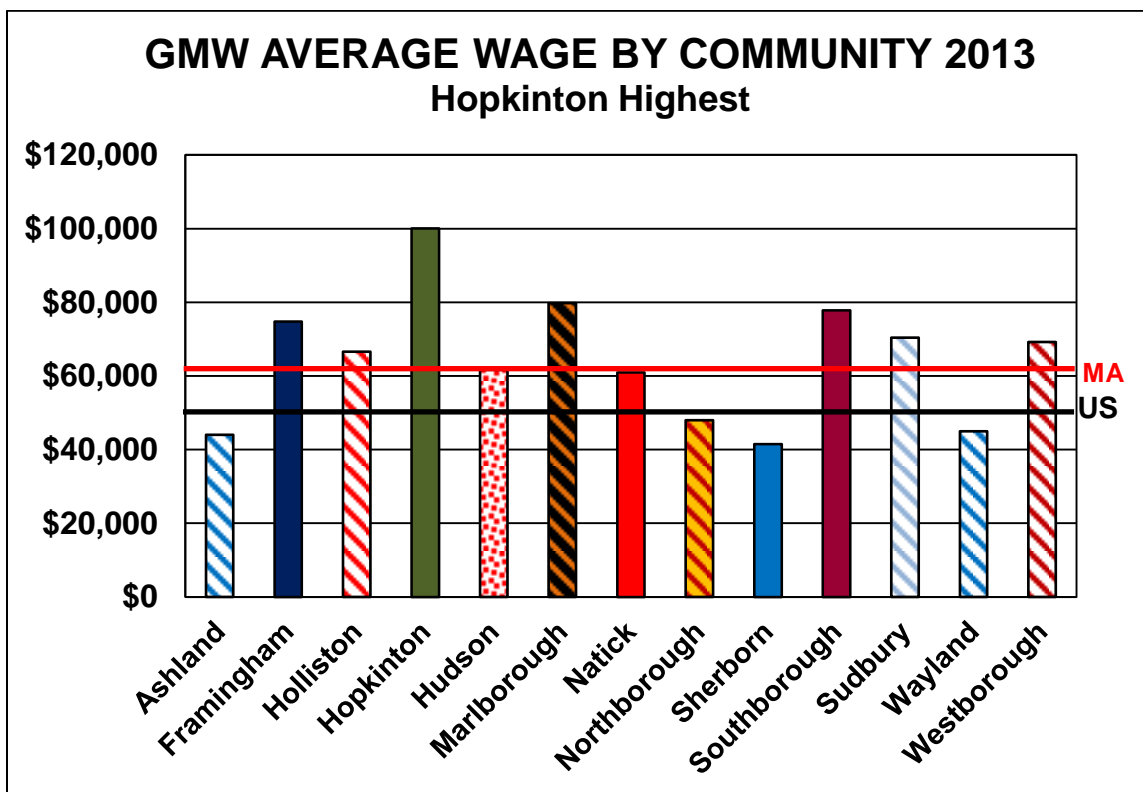


Source: MA EOLWD, MERC

- In 2013 Greater MetroWest (GMW) payroll totaled a record \$12.8 billion, an increase of 1.9% from 2012.
- Among the thirteen GMW communities, Framingham generated the largest share of payroll at \$3.5 billion, or 27% of total regional payroll.
- Five communities each produced a payroll over \$1 billion: Framingham, Hopkinton, Marlborough, Natick, and Westborough. Combined these communities generated three-quarters of the region's total payroll.
- Hudson, Southborough, and Sudbury each contributed payrolls between \$500 million and \$700 million.
- Five communities: Ashland, Holliston, Northborough, Sherborn, and Wayland each produced a payroll below \$500 million.
- Sherborn contributed the lowest share of payroll at \$25 million.



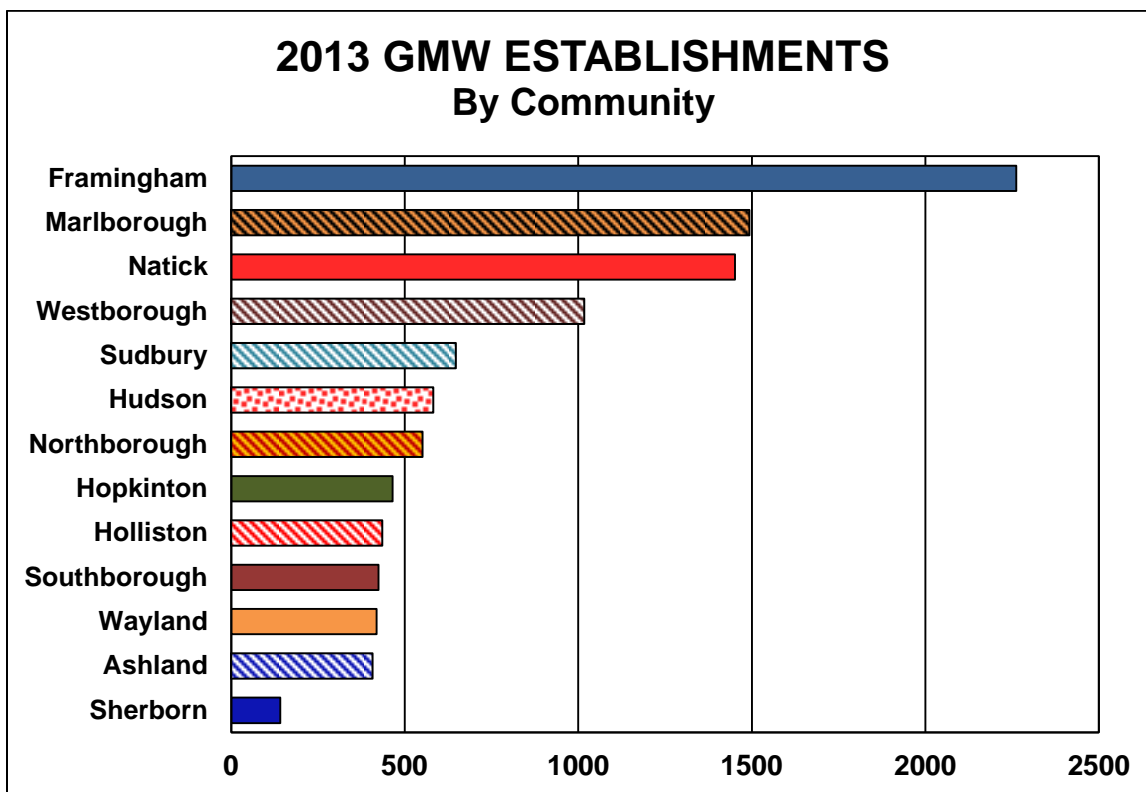
## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- In 2013 the Greater MetroWest region (GMW) generated a record average annual wage of \$70,800, up 0.6% from 2012.
- Among the GMW communities, Hopkinton produced the highest average annual wage, \$100,100. However, this value was 6.6% lower than Hopkinton's 2012 average annual wage.
- Marlborough offered the region's second highest average annual wage, \$79,800, followed by Southborough, \$77,800, and Framingham, \$74,700.
- Sherborn produced the region's lowest average wage at \$41,500. Hopkinton's average wage was more than twice the average wage in Sherborn.
- Seven communities: Framingham, Holliston, Hopkinton, Marlborough, Southborough, Sudbury, and Westborough generated average annual wages above Massachusetts' average annual wage of \$61,800.
- All but four GMW communities, Ashland, Northborough, Sherborn and Wayland, produced a higher wage than the United States' average annual wage of \$49,800.

## GREATER METROWEST – EMPLOYMENT



Source: MA EOLWD, MERC

- In 2013 the number of establishments or separate places of work in the Greater MetroWest region (GMW) totaled 10,300, unchanged from 2012.
- Framingham led with the largest number of establishments within the region at 2,260, or 22%.
- The second largest contributor was Marlborough at 1,490 or 14.5% of regional establishments. Natick followed close behind with 1,450 establishments or 14%.
- Four communities: Framingham, Marlborough, Natick, and Westborough exceeded 1,000 establishments. Together these four communities produced 60% of GMW's total number of establishments.
- Three communities: Sudbury, Hudson and Northborough produced between 500 and 650 establishments.
- Six communities: Hopkinton, Holliston, Southborough, Wayland, Ashland and Sherborn each generated fewer than 500 establishments.
- Sherborn contributed the smallest number of establishments with 140, or 1%.

## **GREATER METROWEST – EMPLOYMENT**

### **Employment Comparison Greater MetroWest By Community 2013**

<b>Community/ Region</b>	<b>Number of Jobs*</b>	<b>Average Wage</b>	<b>Total Payroll* (millions)</b>	<b>Number of Establishments*</b>	<b>Largest Supersector (Employment)</b>
Ashland	4,700	\$44,000	\$206	410	TTU **
Framingham	46,600	\$74,700	\$3,484	2,260	PBS ***
Holliston	6,300	\$66,600	\$418	440	PBS
Hopkinton	11,600	\$100,000	\$1,157	470	Manufacturing
Hudson	10,000	\$61,700	\$622	580	Manufacturing
Marlborough	27,900	\$79,800	\$2,224	1,490	PBS
Natick	23,600	\$61,000	\$1,437	1,450	TTU
Northborough	8,500	\$48,000	\$407	550	TTU
Sherborn	600	\$41,500	\$25	140	Public
Southborough	7,600	\$77,800	\$589	420	Education & Health
Sudbury	7,300	\$70,400	\$517	650	Manufacturing
Wayland	3,700	\$44,900	\$165	420	Leisure & Hospitality
Westborough	22,000	\$69,200	\$1,520	1,020	PBS
MetroWest CCSA	111,900	\$71,500	\$7,999	6,660	PBS
Greater Marlborough Region	68,400	\$69,800	\$4,773	3,650	PBS
Greater MetroWest	180,300	\$70,800	12,773	10,300	PBS
Massachusetts	3,297,000	\$61,800	\$203,750	223,670	Education & Health

Source: MA EOLWD, MERC

\*Rounded

\*\*Trade, Transportation and Utilities (TTU)

\*\*\*Professional and Business Services (PBS)

## **GREATER METROWEST – HOUSING**

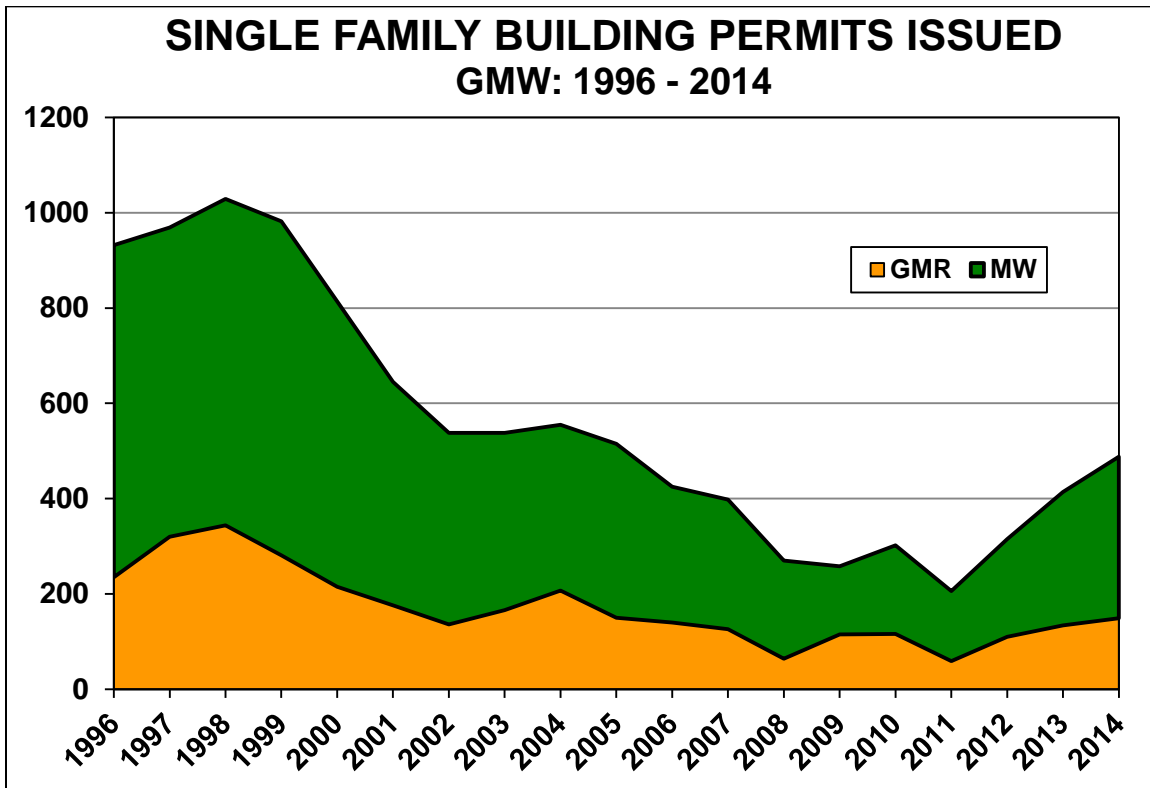
### **HOUSING**

The MetroWest Economic Research Center (MERC) at Framingham State University collects and analyzes data on housing permits issued and existing home sales for Greater MetroWest, the aggregated MetroWest CCSA and Greater Marlborough regions. The MetroWest CCSA includes Ashland, Framingham, Holliston, Hopkinton, Natick, Sherborn, Southborough, Sudbury and Wayland. The Greater Marlborough Region includes Hudson, Marlborough, Northborough, and Westborough. MERC gathers housing data for these thirteen communities from several sources.

Data on new building permits issued for single family homes are collected by MERC using information from the U.S. Census. Annual data for permits issued in the cities and towns for 2014 is estimated using the December year-to-date values. Building permits data for Massachusetts and the United States are based on estimates published by the Federal Reserve Bank of Boston (FRBB).

Information on existing home sales is based on data published by The Warren Group for *Banker & Tradesman*. Most of these data are available from 1987 forward, and were significantly revised in the spring of 2008 in order to better capture market activity. Hence some of the housing figures in this report are not directly comparable to the values reported in previous MERC publications. Data are collected on single and multi-family residences sold in the thirteen communities. Median house price is measured at the 50<sup>th</sup> percentile in each community; that is, half the homes sold for more than the median price and half sold for less than the median price. Median prices for the regions are estimated. It is important to remember that a change in median price does not reflect appreciation or depreciation in the value of individual homes. Rather, there is a different mix of homes sold each year.

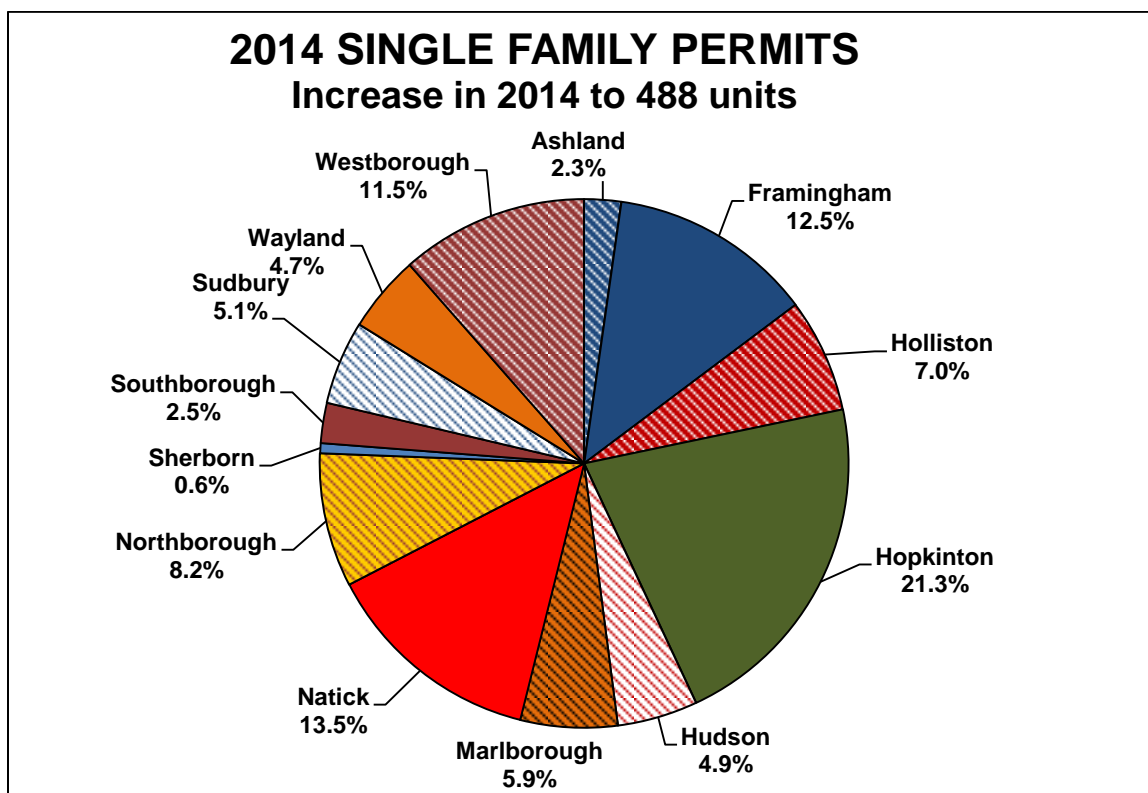
## GREATER METROWEST – HOUSING



Source: U.S. Census and MERC

- New residential housing permits issued each year for single family homes in Greater MetroWest, indicated by the height of the graph above, peaked at more than 1,000 units in 1998. After increasing in 2010 for the first time since 2004, the number of permits issued in Greater MetroWest fell again in 2011, and then rose once again in 2012, 2013 and 2014.
- MetroWest (MW), depicted in green, accounts for about 69.5% of the total permits issued in the Greater MetroWest over the time period, while the Greater Marlborough Region (GMR), depicted in orange, accounted for the remaining 30.5%.
- From 2013 to 2014, MetroWest permits increased by about 21% while Greater Marlborough permits increased by about 11%.
- Permits issued in Greater MetroWest are at fairly low levels, and have been since before the “Great Recession.” Recently, permits in the region have rebounded a little higher than the 2006 level of permits issued.

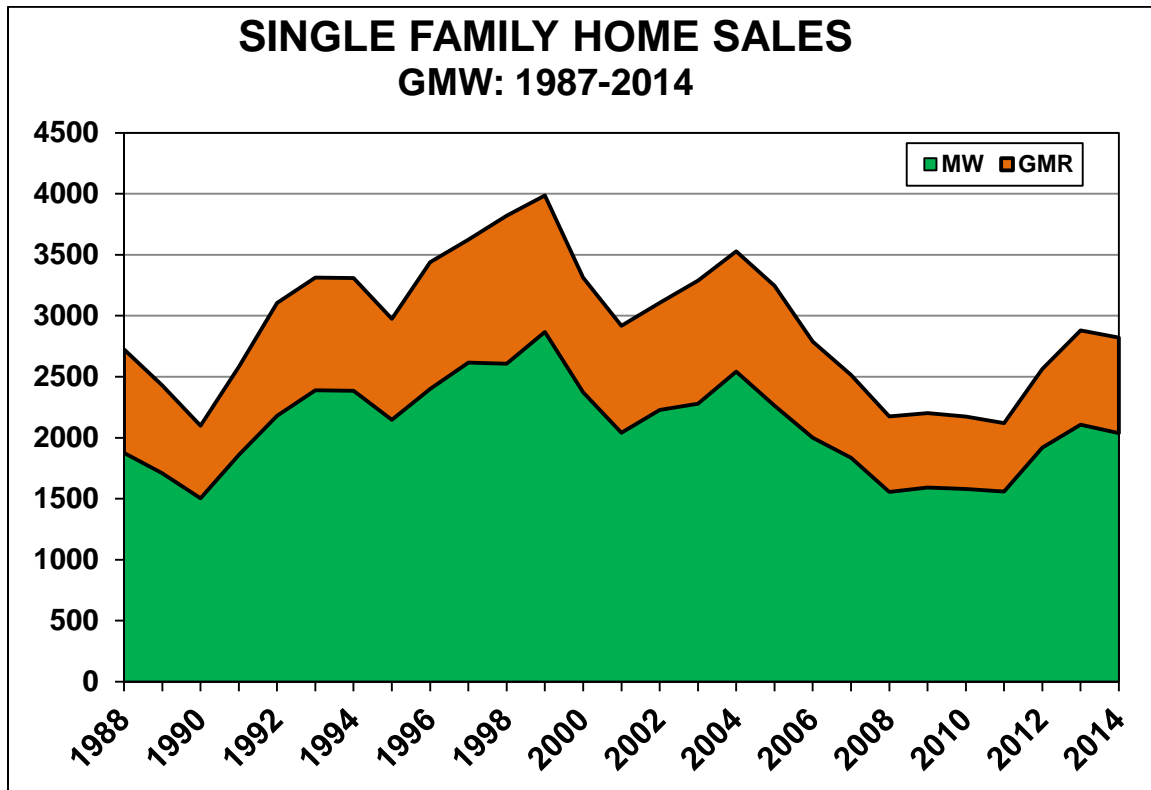
## GREATER METROWEST – HOUSING



Source: The U.S. Census and MERC

- New residential housing permits issued for single family homes in Greater MetroWest increased from 2013 to 2014 to 488 permits issued.
- MetroWest towns issued 339 permits in 2014 while communities in the Greater Marlborough Region issued 149 permits.
- Hopkinton, Natick, and Framingham contributed the largest number of housing permits at 21.3%, 13.5%, and 12.5%, respectively. These three communities made up almost half of Greater MetroWest's new permits issued for 2014.
- Sherborn, Ashland, Southborough and Wayland contributed the smallest number of housing permits at 0.6%, 2.3%, 2.5%, and 4.7%, respectively.

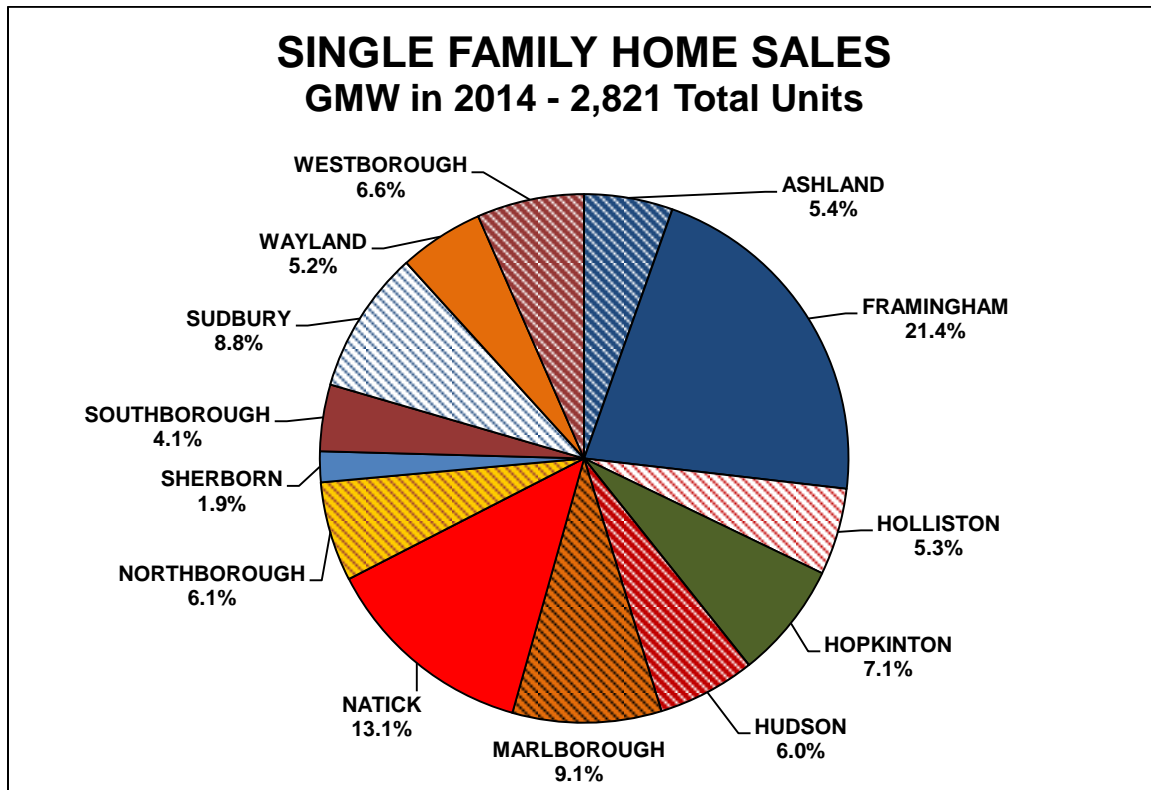
## GREATER METROWEST – HOUSING



Source: The Warren Group and MERC

- Single family home sales are shown for Greater MetroWest by the height of the graph depicted above. The data is shown over a 27 year period from 1987 to 2014. These sales consist of a different mix of homes sold each year. The green area above shows sales of existing homes in the nine towns of MetroWest (MW) while the orange area refers to the four communities of the Greater Marlborough Region (GMR). Comparably, MW has a greater number of single family home sales than GMR.
- The largest number of single family homes sold annually in Greater MetroWest occurred in 1999 at 3,986 units sold. The smallest number of single family homes sold annually occurred in 1990 at 2,099 units sold. The second lowest value occurred more recently, in 2011, at 2,120 units sold.
- Single family home sales in Greater Marlborough were lowest in 2011 at 561 units sold. Single family home sales in MetroWest were lowest at 1,504 units sold in 1990.
- Single family home sales in Greater Marlborough were highest in 1998 at 1,213 units sold. Single family home sales in MetroWest were highest at 2,867 units sold in 1999.

## GREATER METROWEST – HOUSING

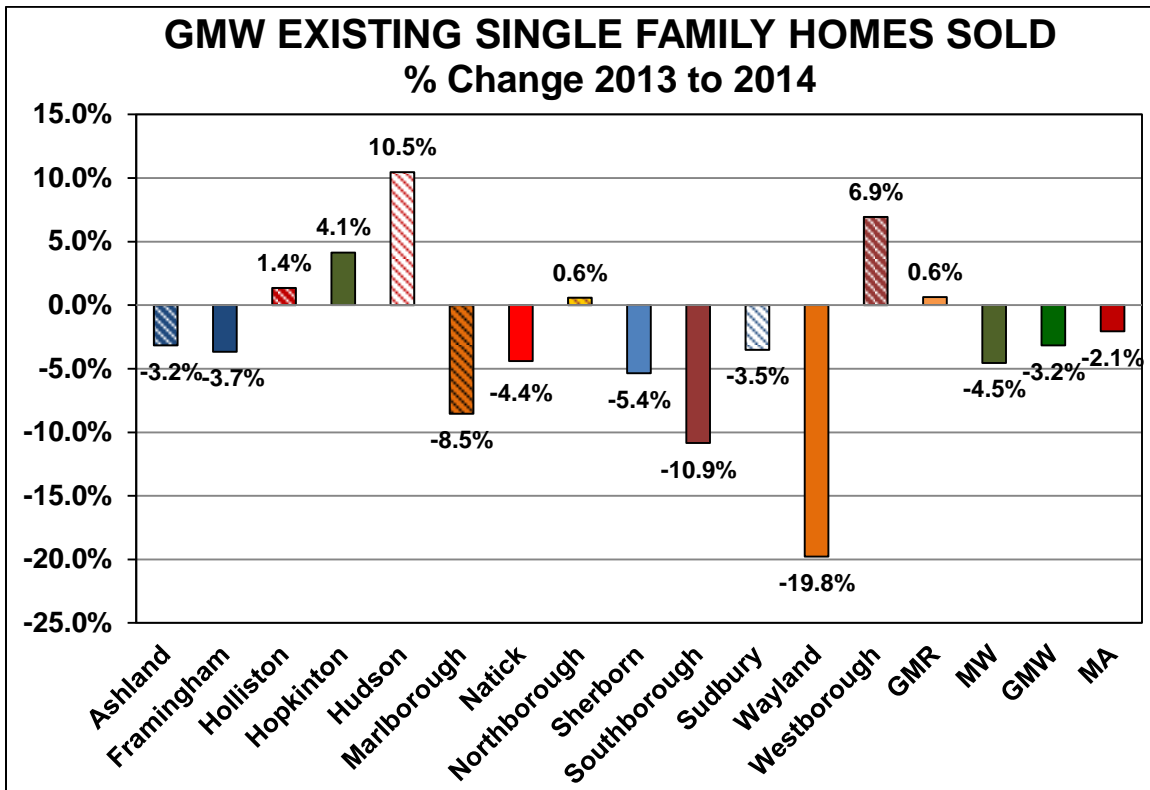


Source: The Warren Group and MERC

- In 2014 2,821 existing single-family homes were sold in Greater MetroWest (GMW). This represents a one-year decrease of about 92 homes.
- Together, Framingham and Natick made up 34.5% of the region's existing homes sold. Framingham had the highest percentage with 21.4%, followed by Natick with 13.1%.
- Marlborough and Sudbury contributed 9.1% and 8.8%, respectively to the region's total. Seven of the thirteen communities each contributed between 5% and 7% to existing single family homes sales in GMW. Hopkinton contributed 7.1%. Westborough, Wayland, and Northborough contributed 6.6%, 5.2%, and 6.1%, respectively, while Ashland, Holliston, and Hudson each posted between 5% and 6% of regional sales.
- Sherborn and Southborough recorded the smallest proportions with 1.9% and 4.1%, respectively. In Sherborn, only 53 existing single family homes were sold in 2014.



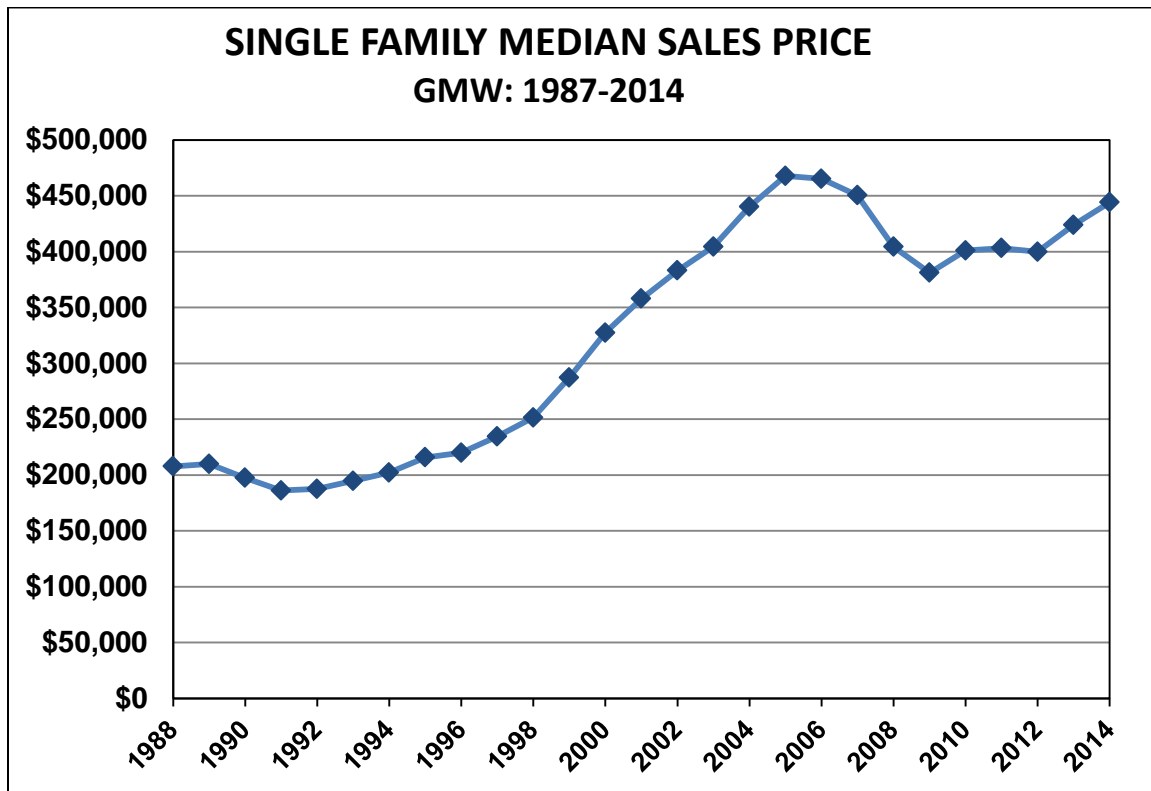
## GREATER METROWEST – HOUSING



Source: The Warren Group and MERC

- The above graph shows the percent change in existing single family home sales from 2013 to 2014 in Greater MetroWest (GMW) and in each of its thirteen communities, as well as MetroWest (MW), the Greater Marlborough Region (GMR) and Massachusetts (MA).
- In 2014 there were 92 fewer units sold in Greater MetroWest, compared to 2013. This represented a -3.2% decrease, as opposed to a 12.3% increase between 2012 and 2013.
- Every community, except Holliston, Hopkinton, Hudson, Northborough and Westborough registered a decrease in units sold. Wayland had the largest decrease of 36 fewer units sold, down -19.8%. Next were declines in Southborough (-10.9%), Marlborough (-8.5%) and Sherborn (-5.4%); the respective decreases in units sold were 14 units, 24 units and 3 units.
- Hudson and Westborough registered the largest increases in units sold. Hudson had a percentage increase of 10.5% while Westborough had a percentage increase of 6.9%.

## GREATER METROWEST – HOUSING

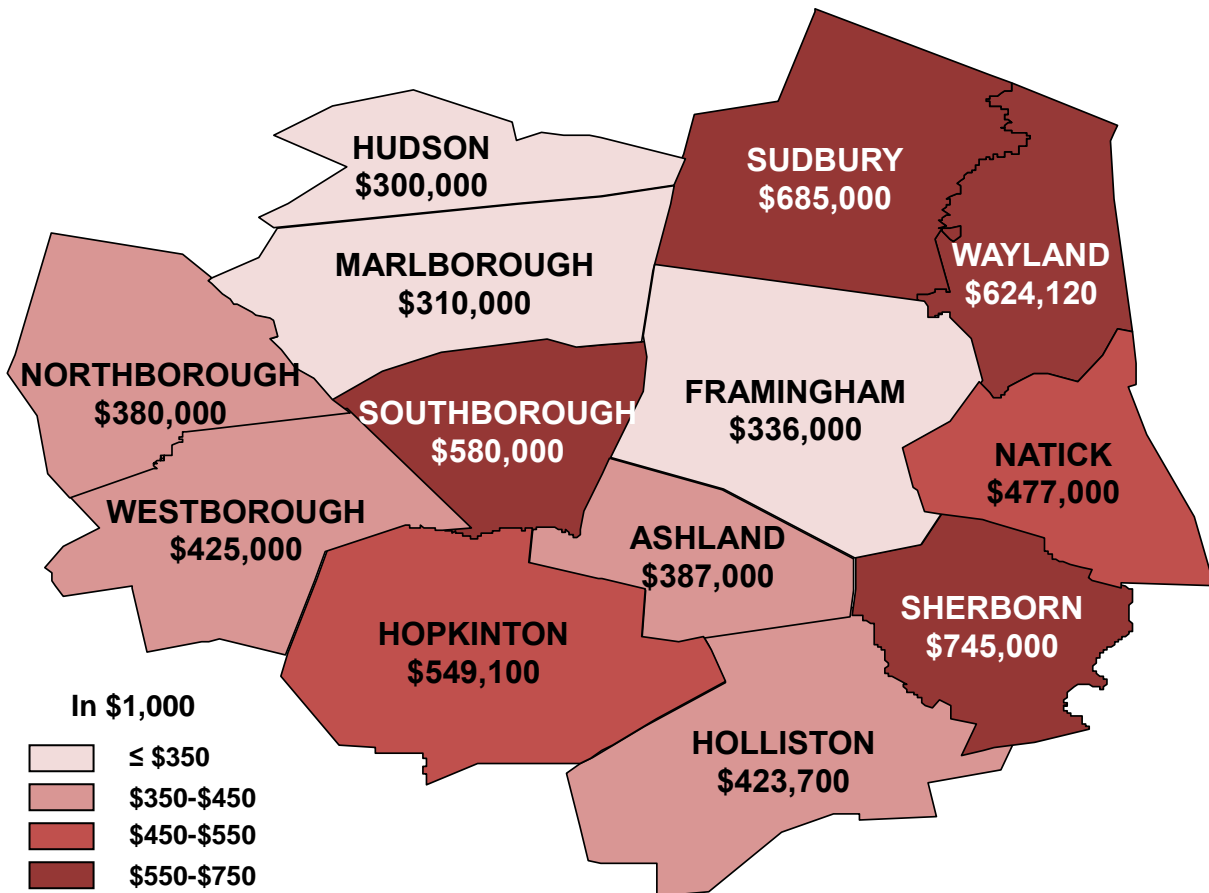


Source: The Warren Group and MERC

- The graph above shows the estimated median price for sales of existing single family homes in Greater MetroWest (GMW) over the 27 year period, 1987-2014. Please note that these sales represent a different mix of homes each year and, therefore, do not reflect the changes in the values of individual homes.
- From 1991 to 2005, when the data series peaked, the median sales price increased every year, increasing from \$186,101 in 1991 to \$467,723 in 2005. This represented an increase of approximately 151%.
- Beginning in 2006, the estimated median sale price declined, and this price decreased every year until 2009.
- In 2014, the estimated median sale price in this region was approximately \$444,151, representing an increase of about 4.8% from the 2013 estimated median sale price of \$423,800.

## GREATER METROWEST – HOUSING

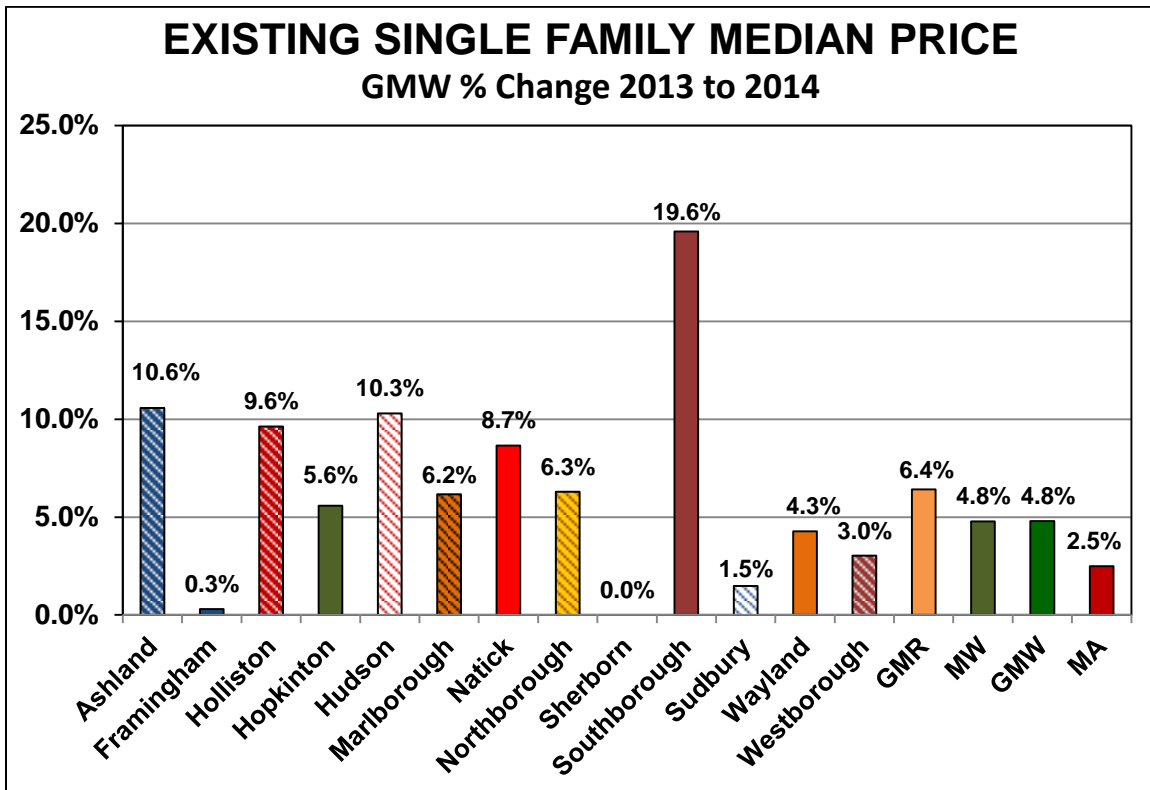
### 2014 SINGLE FAMILY EXISTING HOME PRICES Greater MetroWest Communities



Source: The Warren Group and MERC

- The map above shows the 2014 median sales prices for existing single family homes in the 13 communities in Greater MetroWest (GMW). Median sales prices ranged from a low of \$300,000 in Hudson to a high of \$745,000 in Sherborn.
- Seven of the thirteen communities had median sales prices under \$450,000. Framingham, Hudson, and Marlborough all posted median sales prices between \$250,000 and \$350,000. Holliston, Ashland, Northborough, and Westborough all registered median sales prices between \$350,000 and \$450,000.
- The remaining six communities had median sales prices above \$450,000. Hopkinton had a median sales price of \$549,100 and Natick had a median sales price of \$477,000. Southborough, Sherborn, Sudbury and Wayland posted the highest median sales prices at \$580,000, \$745,000, \$685,000 and \$624,120, respectively.

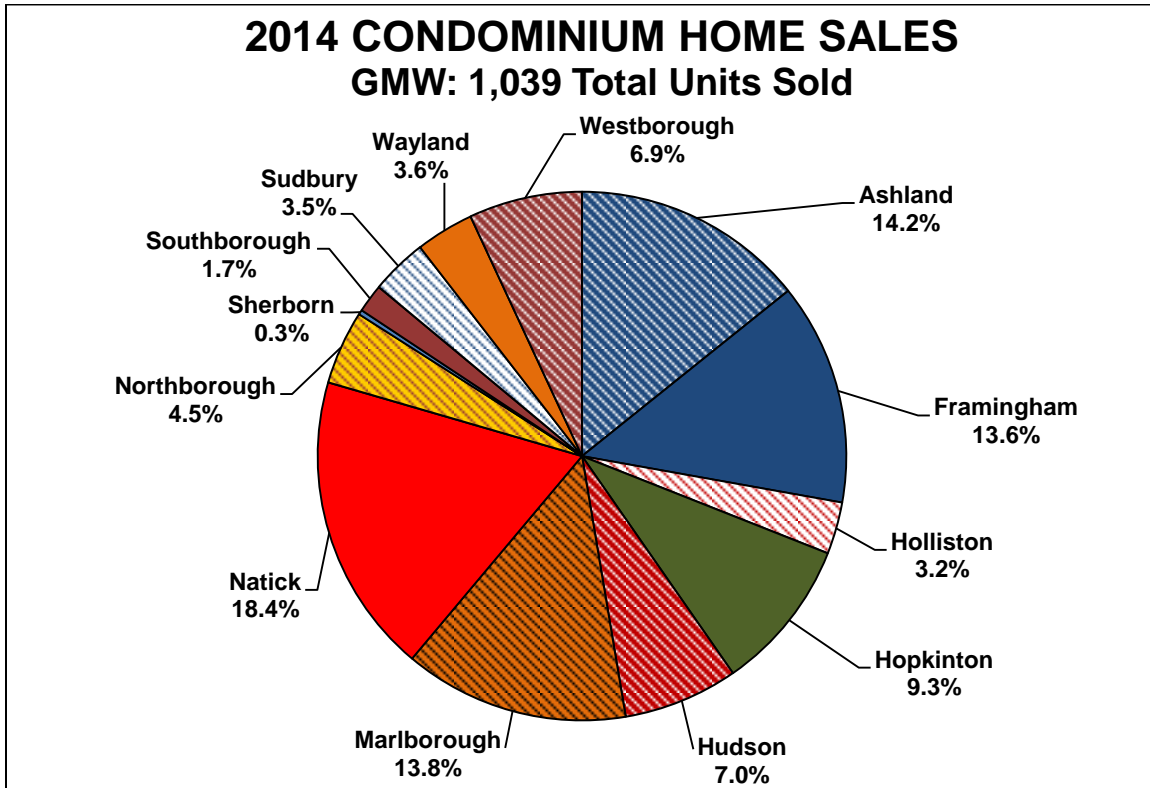
## GREATER METROWEST – HOUSING



Source: The Warren Group and MERC

- The estimated median sales price for existing single family homes in Greater MetroWest (GMW) increased 4.8% from \$423,802 in 2013 to \$444,151 in 2014. Comparably, the median price in Massachusetts increased 2.5% from the 2013 median sale price of \$322,000 to the 2014 median sale price of \$330,000.
- Within the region, no community had a percentage decrease in median price, but Sherborn's price remained the same at \$745,000.
- Every community, except Sherborn, experienced median price increases. Southborough recorded the largest percentage median price increase of 19.6% from \$485,000 in 2013 to \$580,000 in 2014. Ashland had the second largest median price increase of 10.6% from \$350,000 in 2013 to \$387,000 in 2014.
- Both MetroWest (MW) and the Greater Marlborough Region (GMR) experienced an increase in estimated single family median sale price. All towns in MW, with the exception of Sherborn, experienced median sale price increases and all four communities in GMR registered median sales price increases in 2014.

## GREATER METROWEST – HOUSING

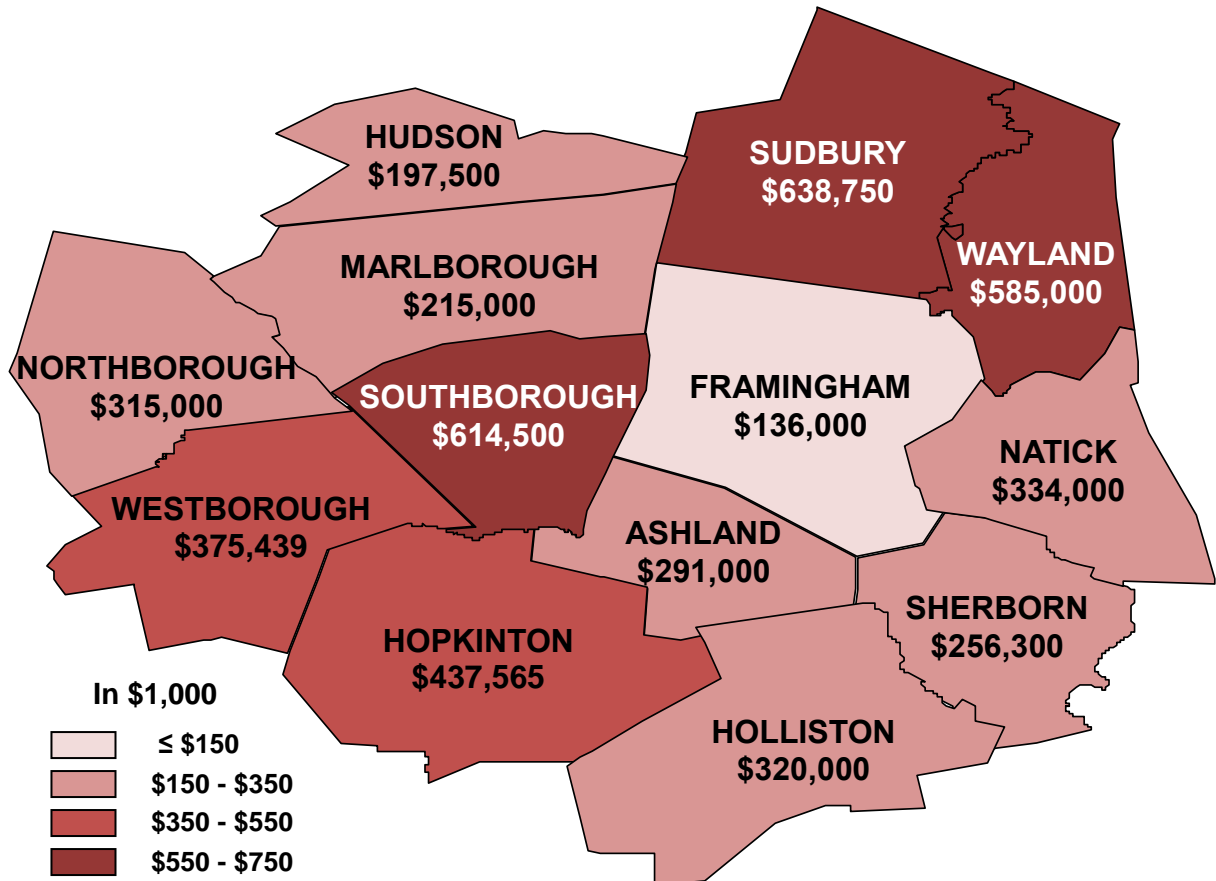


Source: The Warren Group and MERC

- In 2014, 1,039 condominiums were sold in the thirteen communities of Greater MetroWest (GMW).
- Condo sales in four of the communities, Ashland, Framingham, Natick and Marlborough dominated the region making up more than half, or 60%, of the total units sold in GMW. Natick contributed 18.4% to the region's sales. Ashland, Marlborough and Framingham contributed 14.2%, 13.8% and 13.6%, respectively.
- Wayland, Sudbury, Southborough, Sherborn, Northborough and Holliston each contributed 5.0% or less. Sherborn contributed the smallest number of sales with only 3 condominiums sold, which was less than 1.0% of total regional condominium sales.
- The remaining three communities, Westborough, Hudson, and Hopkinton each contributed between 6.9% and 9.3% to regional condominium sales. Hopkinton contributed 9.3%, whereas Westborough and Hudson, contributed 6.9% and 7%, respectively.

## **2014 CONDOMINIUM PRICES**

### **Greater MetroWest Communities**



*Source: The Warren Group and MERC*

- In 2014, the estimated median price for condominium sales in Greater MetroWest was about \$310,405, a 14.0% increase compared to 2013.
- Framingham was the only community that had a median condominium price under \$150,000. Seven of the communities, Hudson, Marlborough, Natick, Sherborn, Ashland and Northborough and Holliston had median sales prices ranging from \$150,000 to \$350,000.
- The remaining five communities had median condominium prices over \$350,000. Westborough and Hopkinton recorded median condominium prices between \$350,000 and \$550,000. Southborough, Sudbury and Wayland had median condominium prices over \$550,000. In 2014 Sudbury had the highest median condominium price within the region at \$638,750.

## **GREATER METROWEST – COST OF LIVING**

### **MEASURING THE COST OF LIVING IN METROWEST**

The MetroWest Economic Research Center (MERC) tracks the cost of living in the MetroWest<sup>1</sup> CCSA area by calculating the average cost of a “market basket” of 57 items that are representative of the items typically purchased by professional and executive households. The items in this “market basket” were selected by The Council for Community and Economic Research (C2ER - formerly ACCRA) based on a survey of consumer spending patterns done by the U.S. Bureau of Labor Statistics. The 57 items are grouped into six categories: grocery items, housing, utilities, transportation, health care and miscellaneous goods and services. In addition to the overall cost of living index, MERC also calculates separate indexes for each of these sub-categories.

During each survey period, MERC gathers data on the prices of these items from over 100 businesses in the MetroWest area and calculates the average price of each item. These average prices are then used to calculate an index for each of the six categories mentioned above and, from them, the overall cost of living index for the area. When calculating each sub-index, every item is assigned a weight that reflects the relative importance of the item in that category of goods and services. The overall cost of living index is then a weighted average of the six sub-indexes, with the weights here reflecting the relative importance of each of the six sub-groups in the overall cost of living. The weights, like the items in the “market basket,” are also determined by C2ER based on the information obtained in the Bureau of Labor Statistics survey mentioned previously.

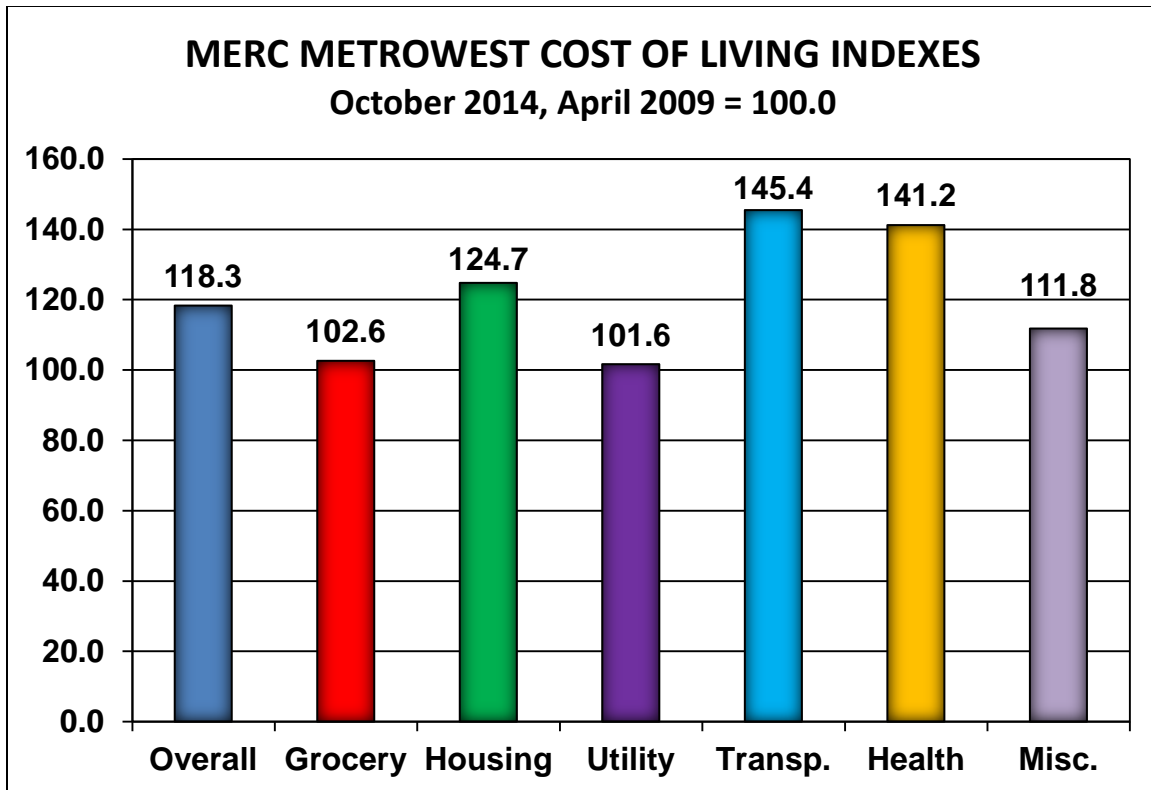
In addition to using this data to track the cost of living in MetroWest over time, MERC also sends its survey results to C2ER to be included in that group’s survey of living costs across the nation. The data from MetroWest are combined with the same data from approximately 300 other U.S. communities to calculate the overall average cost of the “market basket” of goods and services. C2ER calls this the “national average” and then calculates a cost of living index (still called the ACCRA index) for each community as a percentage of this national average. The overall index for each city or town is also broken down into the same six sub-indexes described above and is calculated using the same weighting process. These results make it possible to compare living costs in different areas across the country.

Because these indexes are calculated from the prices of a relatively small sample of the many goods and services which middle-management households actually purchase, they are only estimates of the true cost of living in any given area. As with any figure calculated from sample data, there is a margin of error in the estimate. Since the items in the “market basket” were not randomly chosen, however, it is not possible to calculate exactly what that margin of error is. In its literature, C2ER suggests that small differences in these indexes (up to 3 or 4 percentage points) do not necessarily mean that differences in the true cost of living actually exist.

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<sup>1</sup> MetroWest CCSA includes the towns of Ashland, Framingham, Holliston, Hopkinton, Natick, Sherborn, Southborough, Sudbury, and Wayland.

## GREATER METROWEST – COST OF LIVING

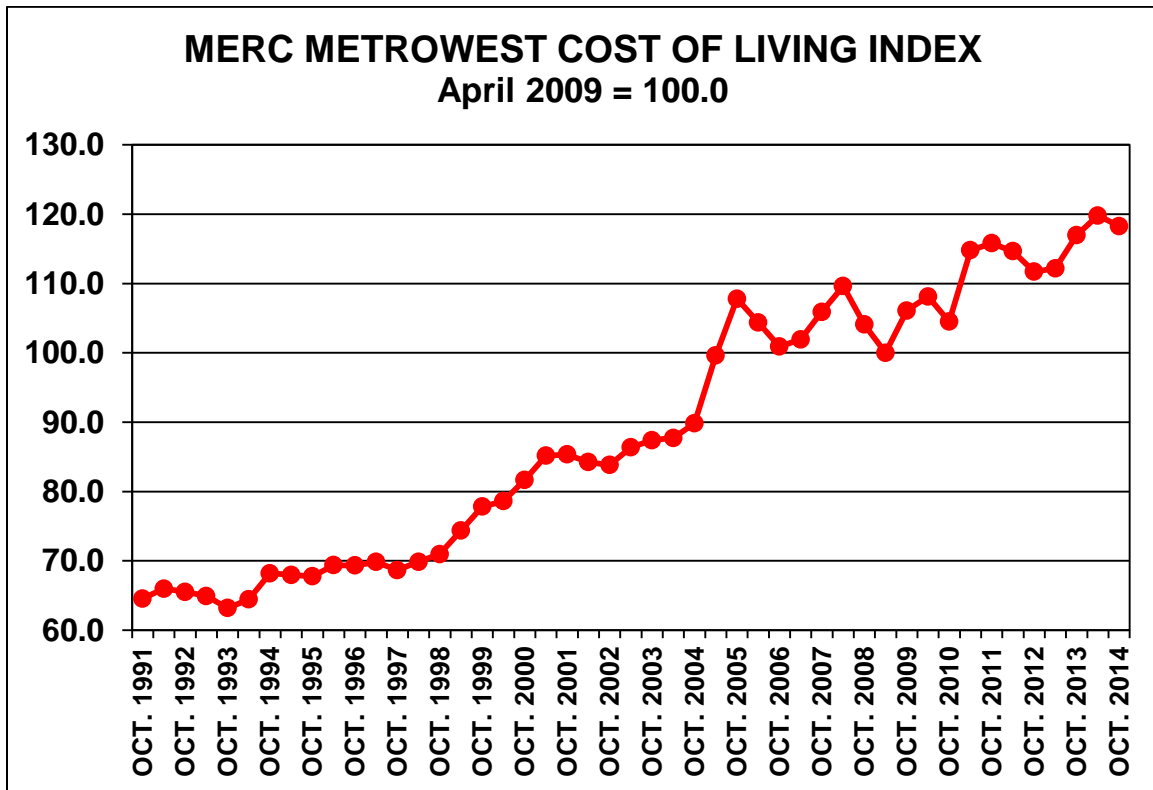


Source: MERC

- The MERC Overall Cost of Living Index for MetroWest was 118.3 in October 2014. This indicates that the cost of living in MetroWest was roughly 18% higher in October of last year than it was in April 2009. This is about a 1.11% increase from one year earlier.
- The Transportation Index fell by over 5.5% from just six months earlier to a value of 145.4. This implies that, despite this decline, transportation costs were still about 45% higher in October 2014 than they were in April 2009.
- The Health Care Index was the second highest of our six sub-indexes at 141.2, or over 41% higher than the base year April 2009, and up about 7% from October 2013.
- The index with the lowest value was the Utility Index, with a value of 101.6, just over 1.5% higher than the base year, April 2009. It was up just slightly from a revised April 2014 value of 100.8.



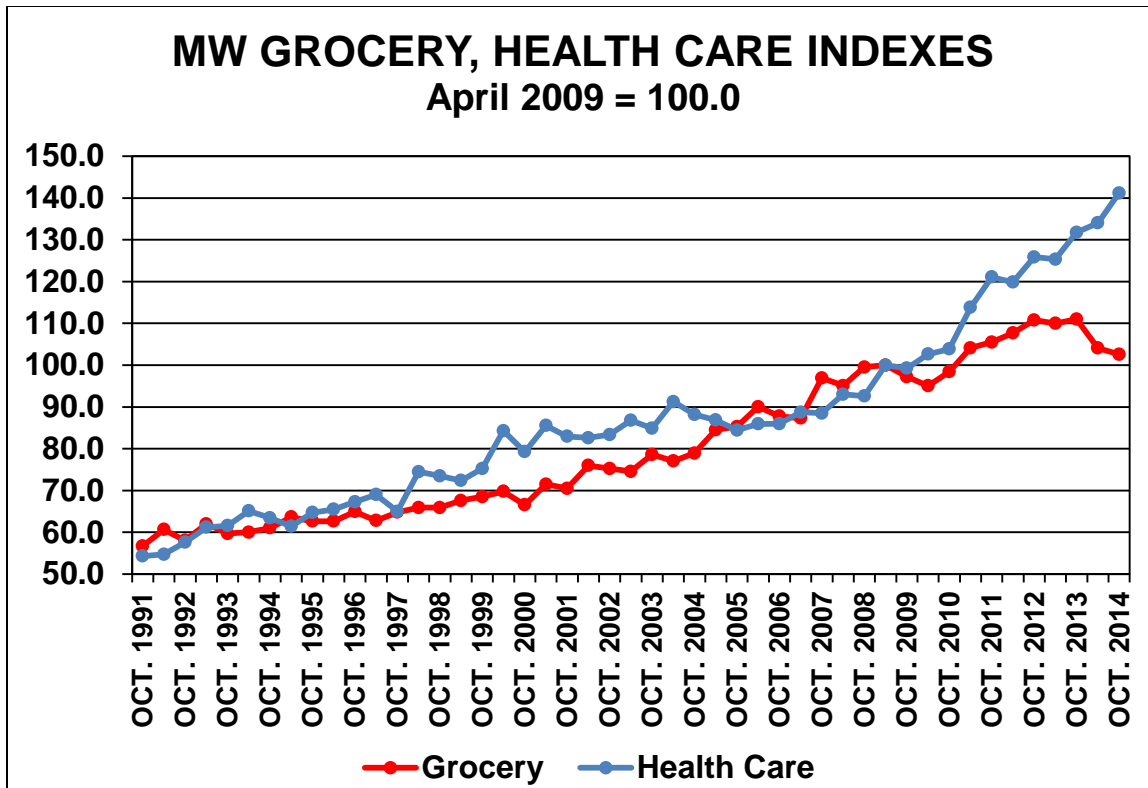
## GREATER METROWEST – COST OF LIVING



Source: MERC

- From April 2014 to October 2014, the MERC MetroWest Cost of Living Index fell by 1.25% to a value of 118.3. This is the first drop in the index since 2012, where the value fell from 114.6 in April to 111.7 in October.
- The MERC Cost of Living Index increased steadily from when MERC began collecting this data in October 1991 to October 2004. After October 2004, the index experienced an increase of volatility, with 5 peaks and 4 troughs within the ten year period.
- The largest increase over any 12-month period was a 20% rise in the index between October 2004 and October 2005. The biggest fall in the index was between April 2008 and April 2009, an 8.8% decrease.
- Over the entire period shown on the graph, this index has risen about 83.1%, which is an increase of about 2.7% per year on average. Over that same period of time, the Boston Consumer Price Index increased at an average annual rate of 2.5% per year; and the U.S. CPI rose about 2.6% per year.

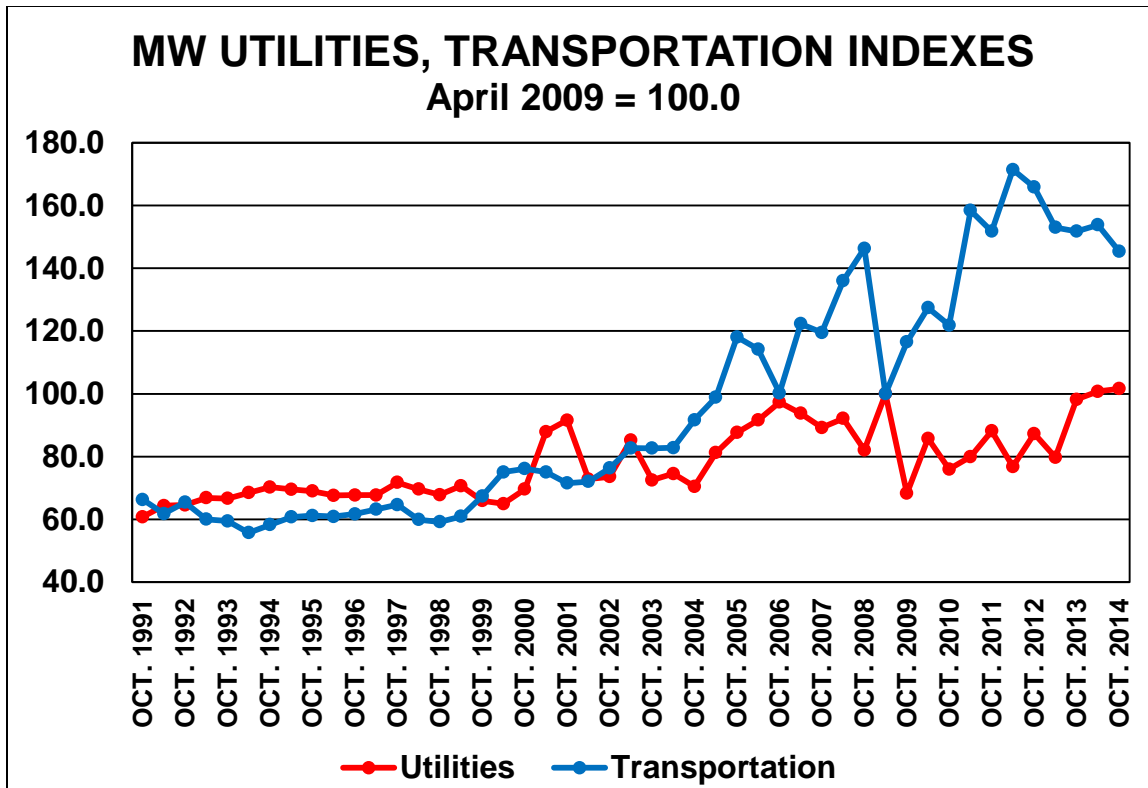
## GREATER METROWEST – COST OF LIVING



Source: MERC

- Over the span from 1991 to our most recent survey in 2014, the Health Care and Grocery Items Indexes rose fairly steadily and until mid-2011 moved in a very similar way.
- The Health Care Index in blue reached a new all-time high for the third survey in a row with a value of 141.2 in October 2014; about a 5.4% increase from April 2014. This indicates that health care costs were about 41% higher in October 2014 than in April 2009.
- The Health Care Index has increased about 160% over the course of our survey, for an average annual increase of 4.2%.
- The Grocery Items Index fell for the second survey in a row to a value of 102.6, a drop of about 1.4% from April 2014 and 7.6% from one year earlier. The index has increased over the 23 years at an average rate of about 2.6% per year.

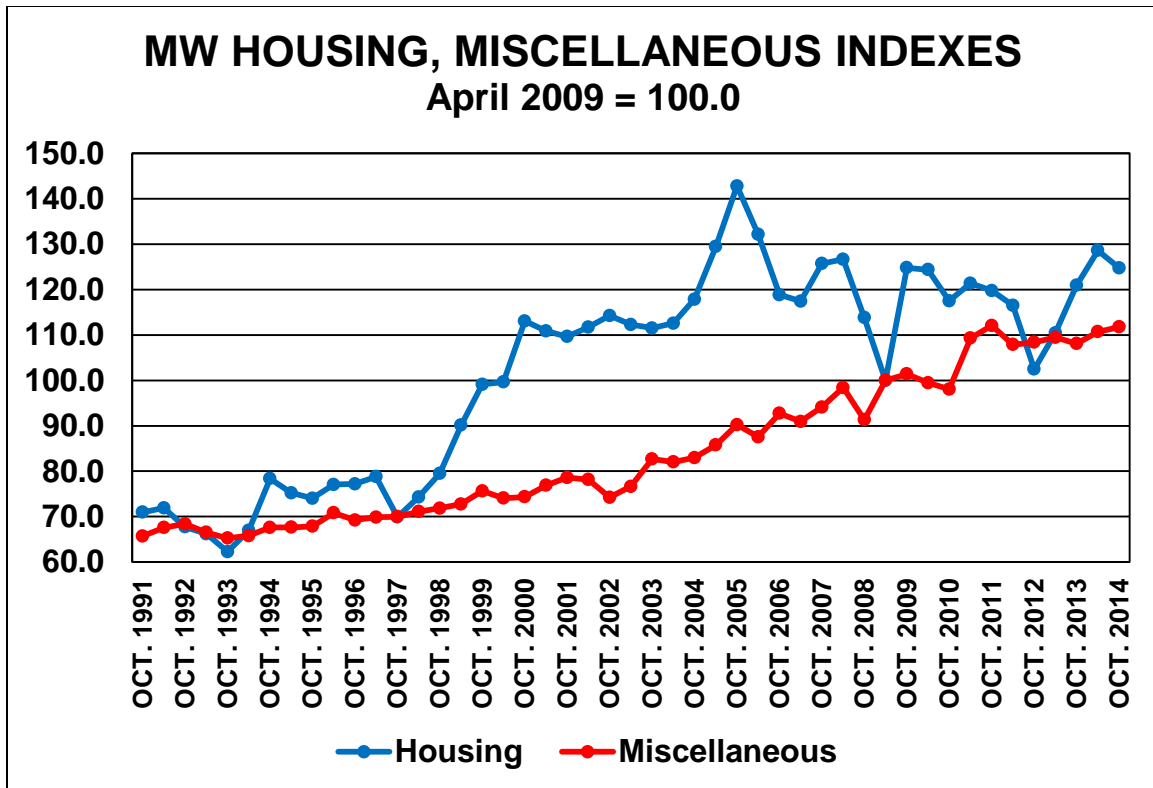
## GREATER METROWEST – COST OF LIVING



Source: MERC

- Both the Utilities and Transportation Indexes were relatively stable throughout the 1990's, increasing by less than 10%. There has been more volatility since then through our most recent survey in October 2014.
- The Transportation Index increased 128.7% from April 2000 to its highest value in April 2012 of 171.5. Since that time the index has dropped about 15.2%, to 145.4 in October 2014.
- The average annual rate of increase in the Transportation Index was 3.5%; for the Utilities Index it was 2.3%.
- The Utilities Index was recently revised to more accurately reflect prices in the region. The index rose to its highest value in October 2014 at 101.6, a less than 1% gain from the previous survey.

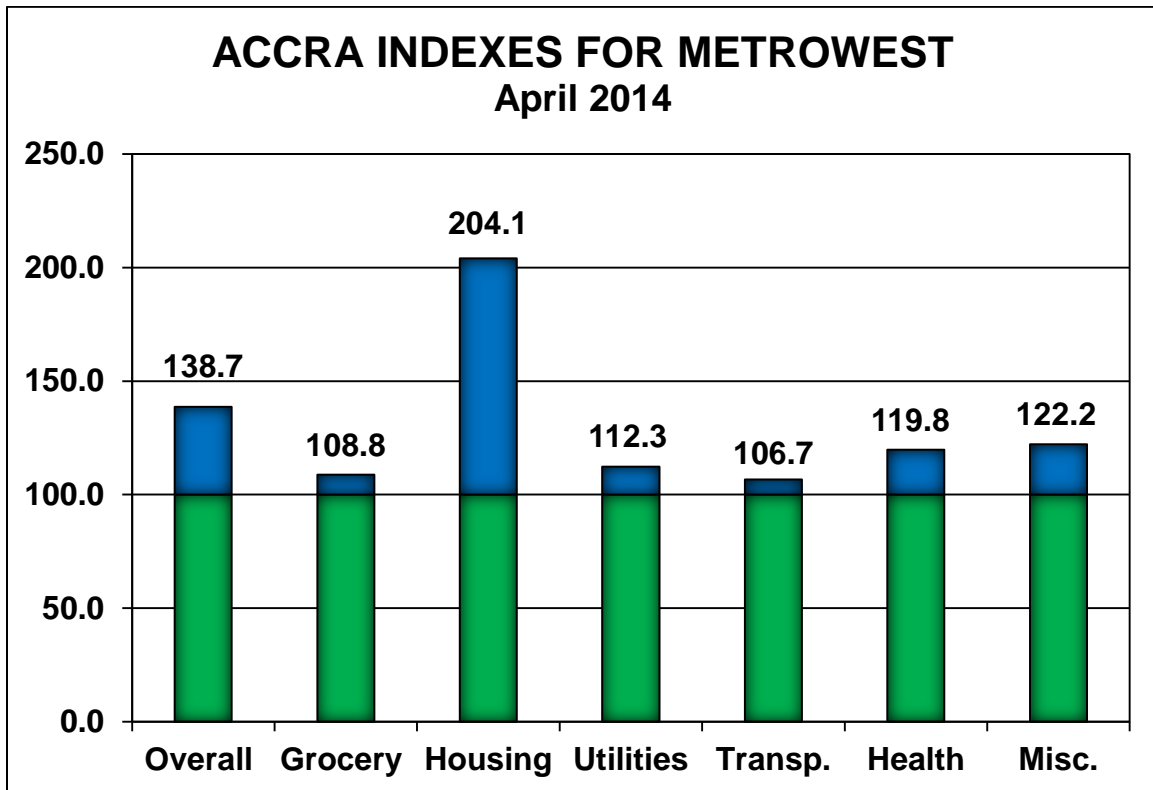
## GREATER METROWEST – COST OF LIVING



Source: MERC

- The October 2014 value of the Housing Index was 124.7. This means that MetroWest housing costs in October 2014 were nearly 25% higher than in April 2009. However, this value is 3.0% lower than the value of the index six months earlier.
- The Housing Index reached its highest value in October 2005 with a value of 142.8; while the Miscellaneous Goods and Services Index reached its peak in October 2011 with a value of 112.1.
- The Miscellaneous Goods and Services Index rose slightly, 110.7 to 111.8, from April 2014 to October 2014; an increase of about 1%.
- The Miscellaneous Goods and Services Index has been steadily rising for most of the period, producing an average annual increase of about 2.3%. The Housing Index was much more volatile over the period and produced an average annual increase of about 2.5%.

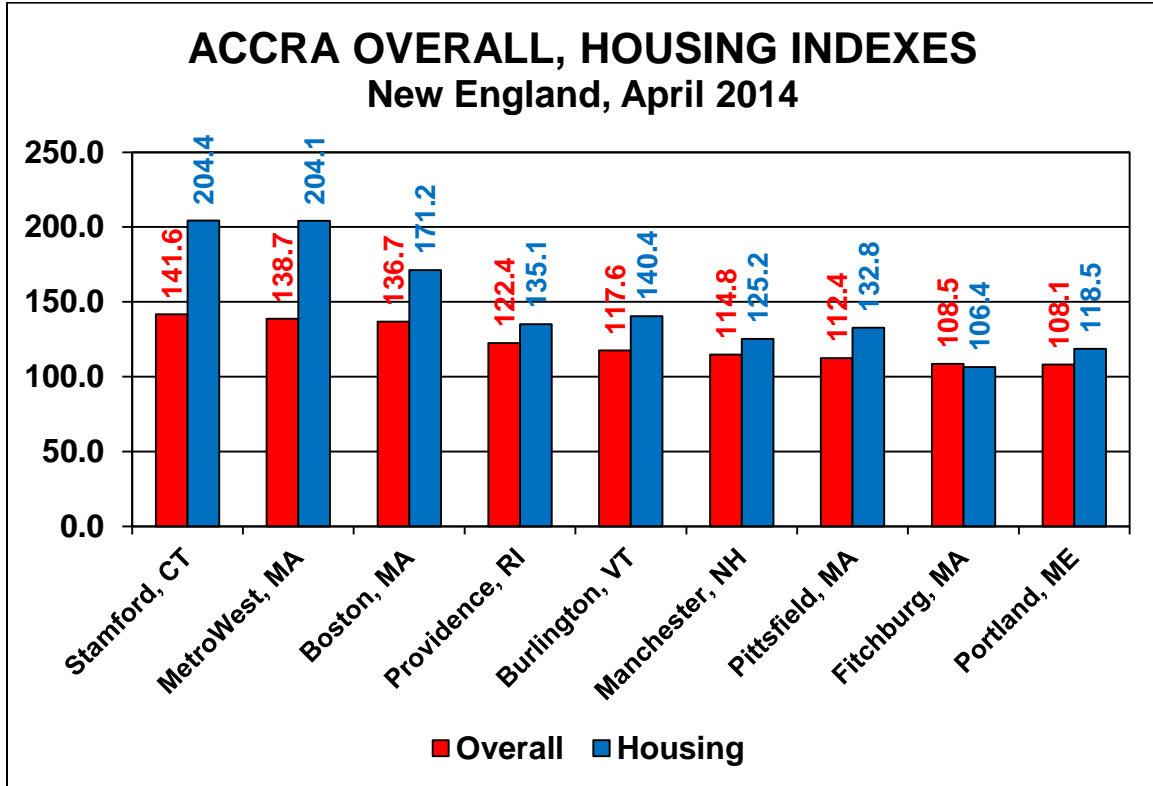
## GREATER METROWEST – COST OF LIVING



Source: C2ER and MERC

- In the graph above the green segment of each bar represents the national average cost of living, which has a value of 100.0. In April 2014 the ACCRA Overall Cost of Living Index for MetroWest was 138.7; nearly 39% above the national average.
- All of the sub-indexes were significantly (more than 3 percentage points) higher than the national average; this continues a trend that has appeared in almost every ACCRA report since MERC began participating in 1991.
- The Housing Index was the highest of six sub-indexes with a value of 204.1. This means that housing costs in MetroWest were roughly double the national average.
- The Transportation Index had the lowest of value of the six sub-indexes with a value of 106.7, nearly 7% higher than the national average. It was followed closely by the Grocery Items Index at 108.8.
- All of the sub-indexes, except for Housing, had values below the Overall Index.

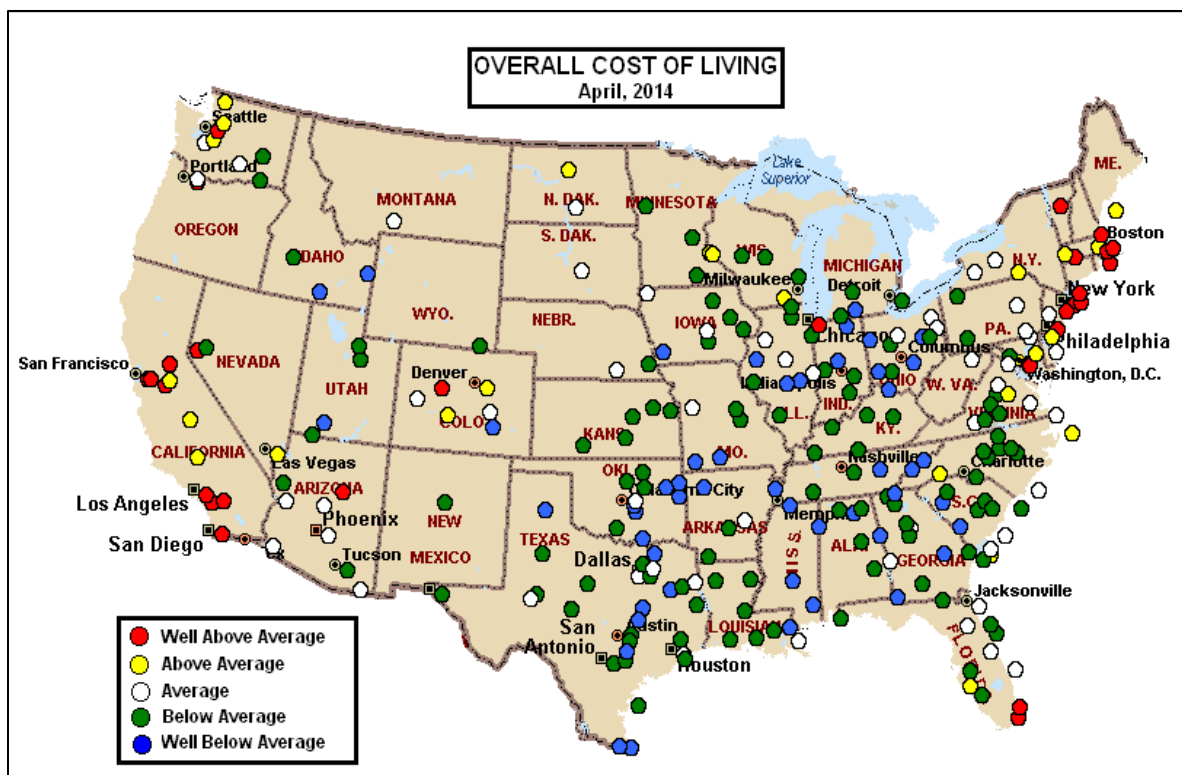
## GREATER METROWEST – COST OF LIVING



Source: C2ER and MERC

- The graph above shows the ACCRA Overall Cost of Living Indexes (red) as well as the Housing Indexes (blue) for various cities and towns across New England. Every area had Overall and Housing Indexes above the national average, 100.0.
- Stamford, Connecticut tops the list with an Overall Cost of Living Index of 141.6, 41.6% higher than the national average. Stamford also recorded the highest Housing Index value of 204.4 which means that housing costs in Stamford were more than double the national average.
- MetroWest was a close second, recording an Overall Cost of Living Index value of 138.7 and a Housing Index of 204.1.
- Lowest on the list was Portland, Maine, although still above the national average in both the Overall Index as well as the Housing Index, recording values of 108.1 and 118.5 respectively.
- In 8 of 9 New England communities featured here, the Housing Index was higher than the Overall Index; this suggests that housing costs are a significant contributor to the high cost of living in this region.

## GREATER METROWEST – COST OF LIVING

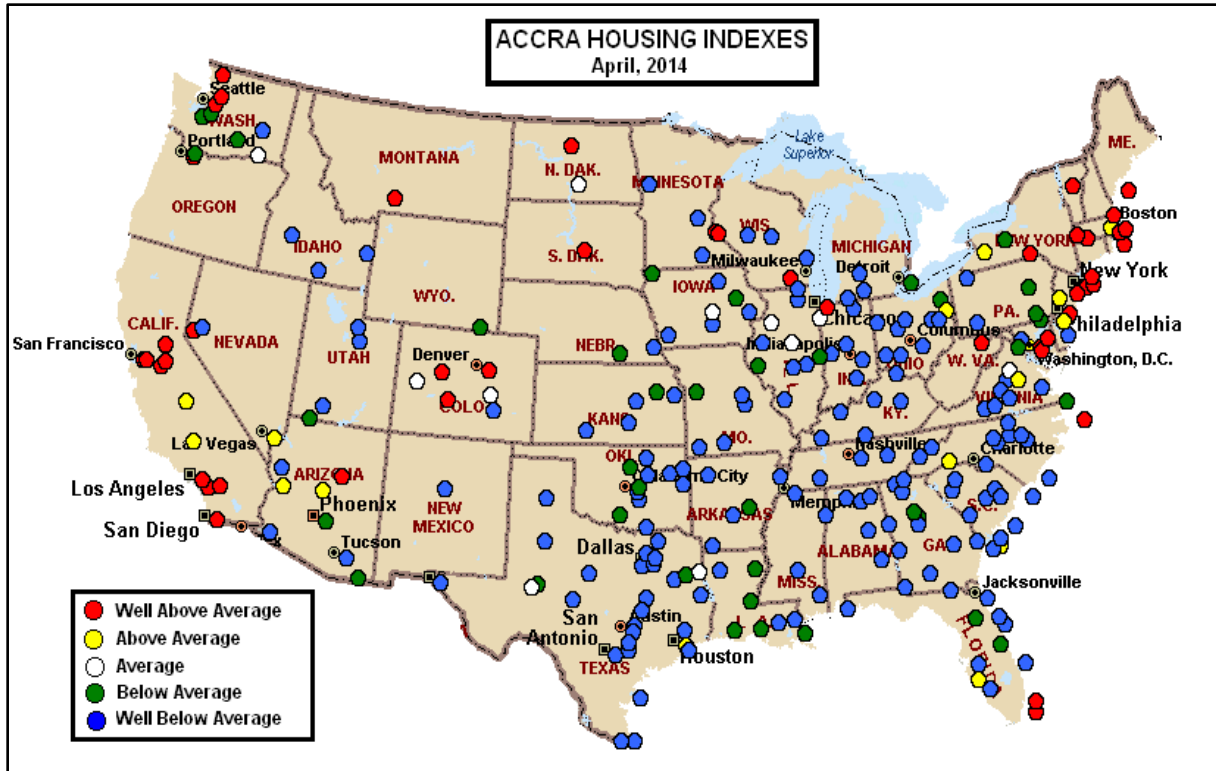


Source: C2ER and MERC

- In April 2014, the participating communities with the highest living costs (red dots) were mostly located in the Northeast and on the West Coast. Manhattan, NY (217.0) had the highest Overall Index, nearly 2.2 times the national average. It was followed by Honolulu, HI (167.5) and Brooklyn, NY (167.2). MetroWest was 9<sup>th</sup> highest at 138.7 and Boston was 12<sup>th</sup> with a value of 136.7.
- Harlingen, TX had the lowest Overall Index in April 2014 with a value of 79.8, which implies that the overall cost of living in Harlingen was around 20% below the national average. The next lowest Overall Indexes were found in Norman, OK at 84.2 and Pueblo, CO with a value of 84.3.
- In all, 49 of the nearly 280 communities participating in the April 2014 survey had Overall Indexes below 90.0, which is more than 10% below the national average, represented by the blue dots. In contrast, 38 communities had Overall Index values above 110.0 which is more than 10% above the national average, represented by the red dots.

Note: The Overall ACCRA Index was used for this classification. Average means that the index was between 97 and 103, Above Average is an index between 103.1 and 110.0; Well above average is an index higher than 110. A community with an index below 90.0 is classified as Well Below Average, while Below Average is an index between 90.0 and 96.9.

## GREATER METROWEST – COST OF LIVING



Source: C2ER and MERC

- The Housing Indexes from the April 2014 survey exhibited a similar pattern to that seen in the Overall Indexes on the previous page with the red circles concentrated primarily in the Northeast and West Coast, with some scattered around the Midwest in major cities.
- The highest Housing Index was 432.6 in Manhattan, NY. This implies that housing costs in Manhattan were almost four and a half times the national average. The next highest Housing Indexes were found in Brooklyn, NY (294.1) and San Francisco, CA (293.4). MetroWest, MA had the 10<sup>th</sup> highest Housing Index with a value of 204.1 and Boston had the 16<sup>th</sup> highest index value at 171.2.
- The lowest Housing Index of the communities surveyed was found in Idaho Falls, ID with a value of 62.1; that's nearly 40% below the national average. The next lowest index values were in Ashland, OH (62.9) and Tulsa, OK (65.5).
- In total, 55 of the communities surveyed had Housing Indexes more than 10% above the national average (above 110.0) while 160 had index values more than 10% below the national average (below 90.0).

Note: The Overall ACCRA Index was used for this classification. Average means that the index was between 97 and 103, Above Average is an index between 103.1 and 110.0; Well above average is an index higher than 110. A community with an index below 90.0 is classified as Well Below Average, while Below Average is an index between 90.0 and 96.9.



## ***GREATER METROWEST – MUNICIPAL REVENUE***

### **MUNICIPAL REVENUE**

Municipalities report budgeted revenue, actual revenue and actual expenditures to the Massachusetts Department of Revenue (DOR), Division of Local Services (DLS) on form Schedule A which includes a tax recapitulation report. The DLS of the DOR prepares many analyses from these reports. The MetroWest Economic Research Center (MERC) at Framingham State University uses the underlying information as well as DLS reports to prepare analyses for the local region.

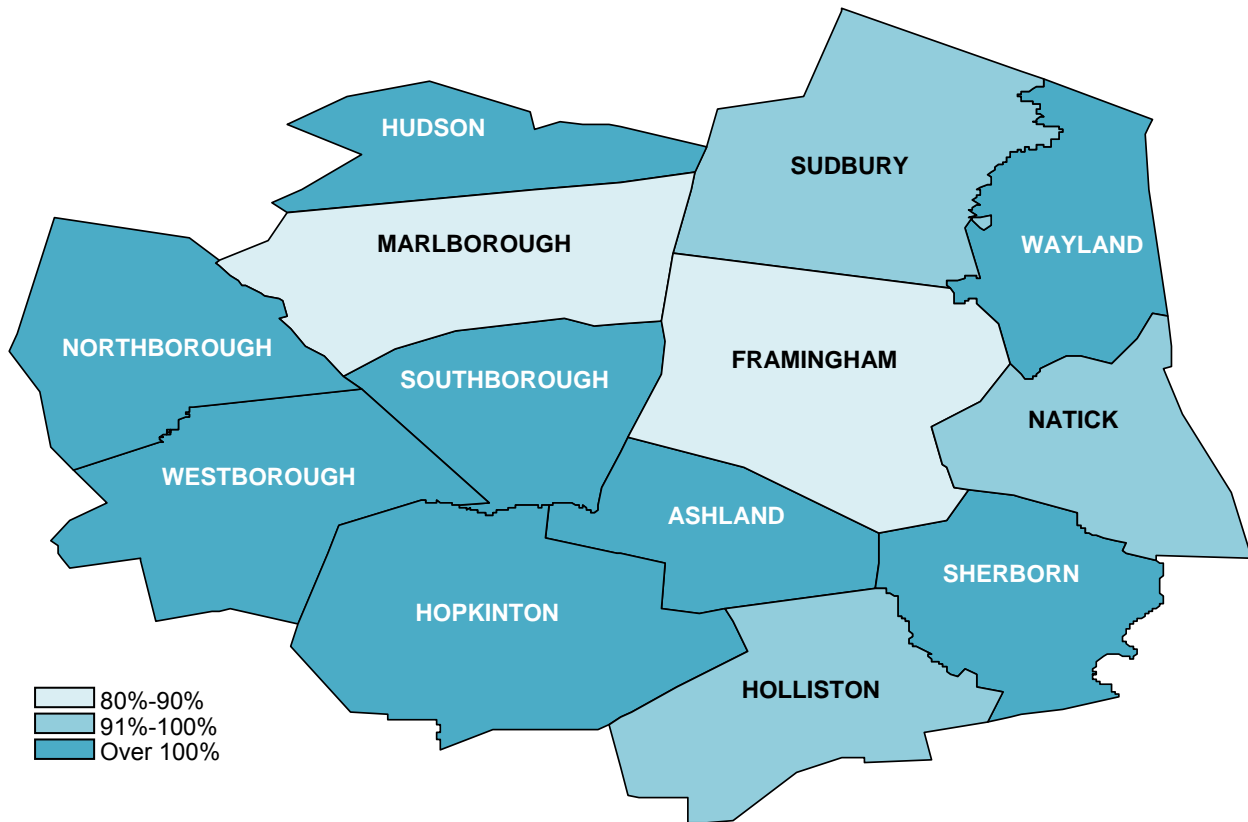
Unless otherwise stated, revenue presented in this report represents budgeted revenue reported to the Massachusetts Department of Revenue, Division of Local Services by the respective municipalities. It consists of the total tax levy, state aid, local receipts and an “all other” category. The tax levy consists of assessments on personal property, industrial, commercial, open space and residential real estate. Personal property includes furnishings of second homes and some inventories and equipment of unincorporated businesses. On-site vehicles of utility companies are generally included in this category as well. State aid is earmarked as state aid for education and state aid for general government. Local receipts include motor vehicle excise taxes, licenses and charges for services. The “all other” category includes free cash and other available funds. Budgeted revenue and actual revenue differ very little.

Tax levies are subject to limitations imposed by related legislation. In any given year, the tax levy cannot exceed 2½ percent of the total assessed value of the property of the community. In addition, the tax levy cannot increase by more than 2 ½ percent of the prior year tax levy limit plus new growth without voter approval of an operating budget override or a debt exclusion override. An operating budget override constitutes a permanent adjustment to the tax levy base that is used for subsequent year calculation limits while a debt exclusion override is in effect only for the life of the bond for which it was approved. It does not become a permanent adjustment to the tax levy base. Individual communities are also able to determine the extent to which property taxes will be borne by residential taxpayers or commercial and industrial (C&I) taxpayers. Some communities choose to tax residential, commercial and industrial property at the same rate while others use split rates. Personal property is generally taxed at C&I rates imposed by the respective community.

Additional analysis has been included on total school spending in the GMW region by the following categories: foundation budget; required net school spending; Chapter 70 aid for education; actual net school spending; and required local contributions.

## GREATER METROWEST – MUNICIPAL REVENUE

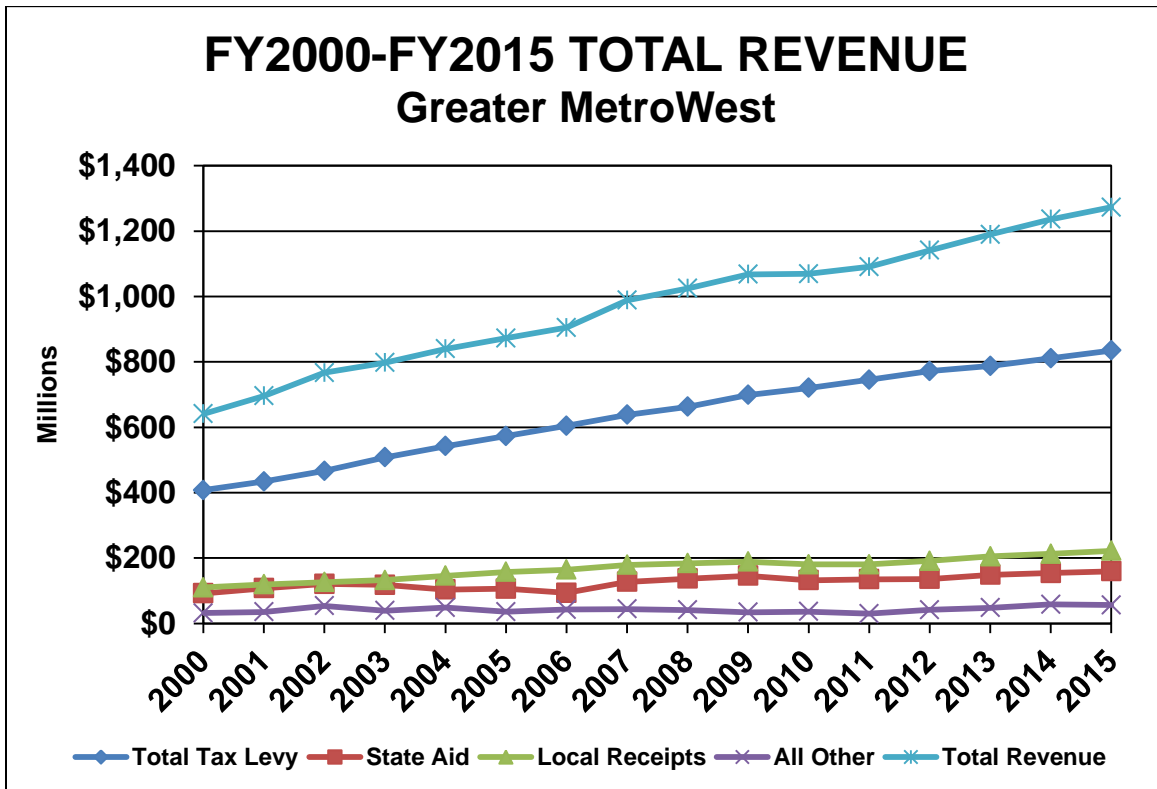
### GREATER METROWEST GROWTH IN MUNICIPAL REVENUE FY2000-FY2015



Source: MA Department of Revenue, DLS, and MERC

- Municipal revenue percentage growth from FY2000 to FY2015 in Greater MetroWest (GMW) is divided into three intervals: 80% to 90%, 91% to 100% and greater than 100%.
- From FY2000 to FY2015, total GMW municipal revenue increased from \$641.3 million to approximately \$1.3 billion, a gain of 98.2%.
- The five communities of Framingham, Holliston, Marlborough, Natick and Sudbury experienced growth in the 80% to 100% range. The remaining eight communities experienced growth of more than 100%.
- Hopkinton and Southborough experienced the largest percentage growth throughout the period, 136.1% and 121.7% increases, respectively. The community with the lowest percentage growth was Marlborough at 83.2%.

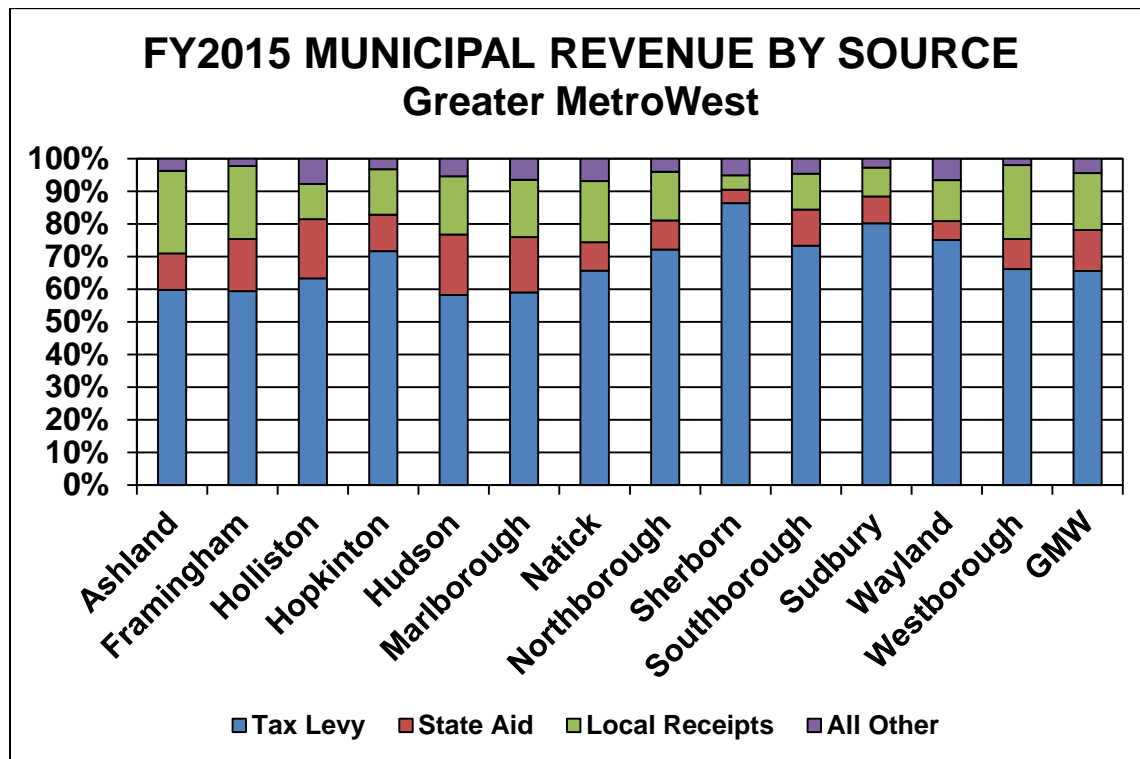
## GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- Total municipal revenue for Greater MetroWest (GMW) rose from \$641.3 million in FY2000 to \$1,272.7 million in FY2015, an increase of 98.2%.
- The tax levy for the region grew every year for an overall increase of 104.8%; the tax levy increased from \$407.8 million in FY2000 to \$834.9 million in FY2015. The tax levy rose by 3.0% from FY2014 to FY2015.
- Local receipts reached the highest value in FY2015 at \$222.0 million, an increase of 4.2% from FY2014 and an increase of 101.8% since the start of the period in FY2000.
- State aid for GMW was one of the lowest contributors to total revenue, rising from \$91.8 million in FY2000 to \$159.5 million in FY2015, an increase of 73.7%. State aid increased 3.4% from FY2014 to FY2015.
- The “all other” category was the lowest contributor in the period. In FY2000 “all other” stood at \$31.7 million. By FY2014 it reached its peak of \$58.0 million, an increase of 83.0% from FY2000.

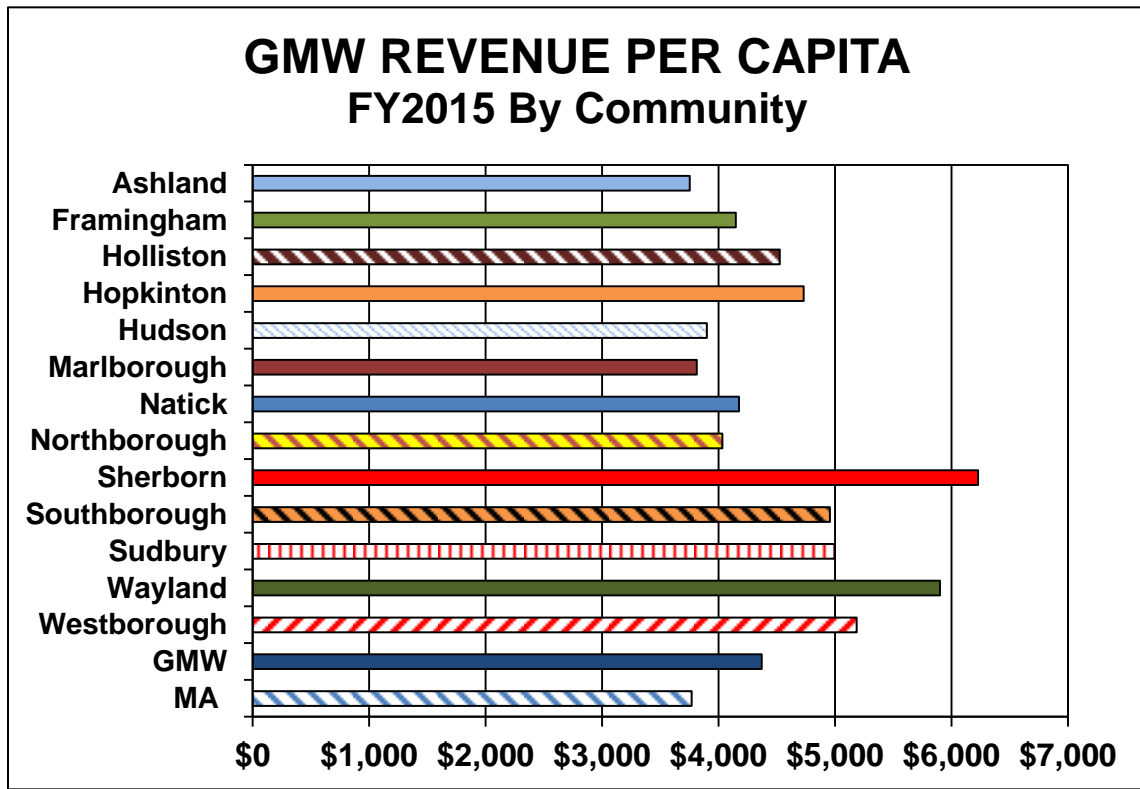
## GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- In FY2015 the municipal revenue components for Greater MetroWest (GMW) varied by community. The total tax levy represented the largest contributor in each of the thirteen communities and the region. The percent of municipal revenue contributed by the tax levy ranged from a low of 58.2% in Hudson to a high of 86.4% in Sherborn.
- State aid as a percentage of total revenue varied from a low of 4.1% in Sherborn to its highest percentage in Hudson at 18.5% followed by Holliston at 18.2%.
- Local receipts ranged from 4.4% in Sherborn to a high of 25.3% in Ashland, a difference of almost 21 percentage points.
- “All other” had the smallest contribution to municipal revenue with a low of just 2.0% in Westborough. The highest percentage was in Hopkinton where 7.8% of municipal revenue came from the “all other” category.

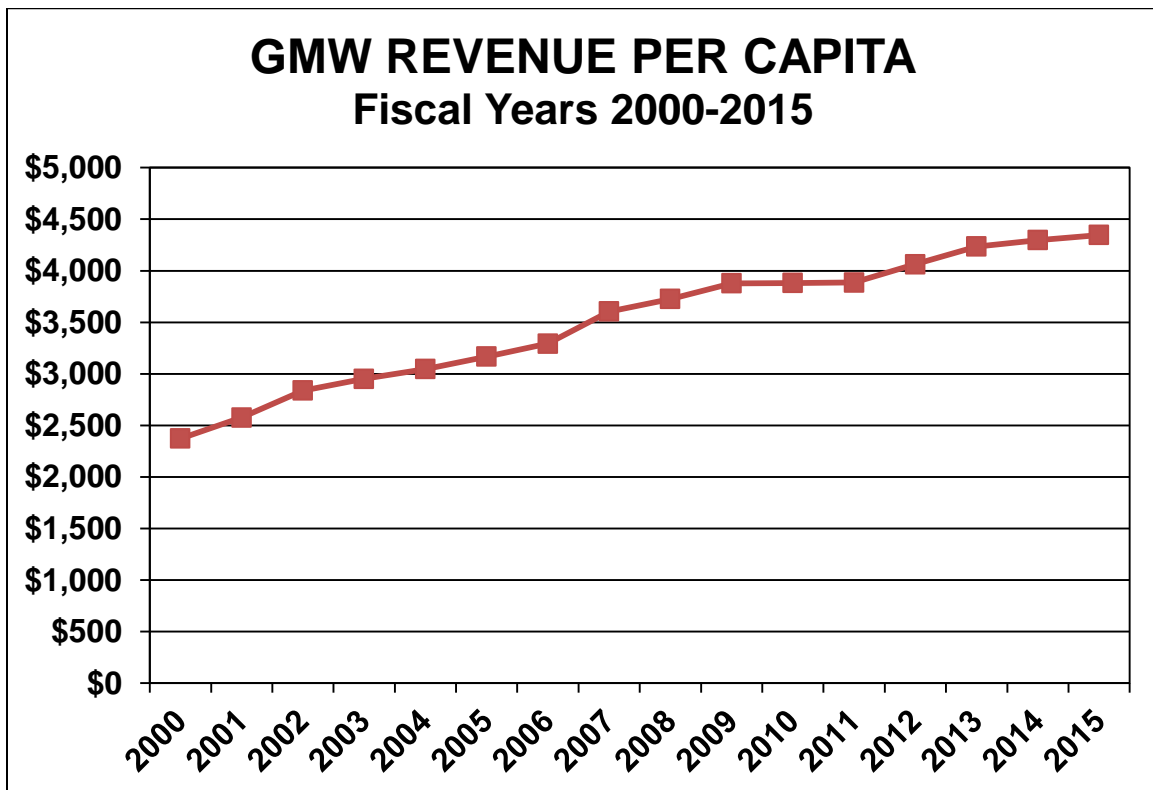
## GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- Municipal revenue per capita for Greater MetroWest (GMW) communities, the region, and the state for FY2015 can be viewed as spending per capita as communities are required to balance their budgets.
- Of the thirteen GMW communities, Sherborn had the highest municipal revenue per capita at \$6,228; this was higher than Wayland which had the second highest municipal revenue per capita at \$5,902. Ashland had the lowest with \$3,752, just slightly lower than Marlborough and the state, which had per capita revenues of \$3,814 and \$3,771, respectively.
- Six of the thirteen communities fell below the GMW municipal revenue per capita average of \$4,370: Ashland, Framingham, Hudson, Marlborough, Natick, and Northborough.
- Each of the remaining seven communities was above the GMW municipal revenue per capita average.

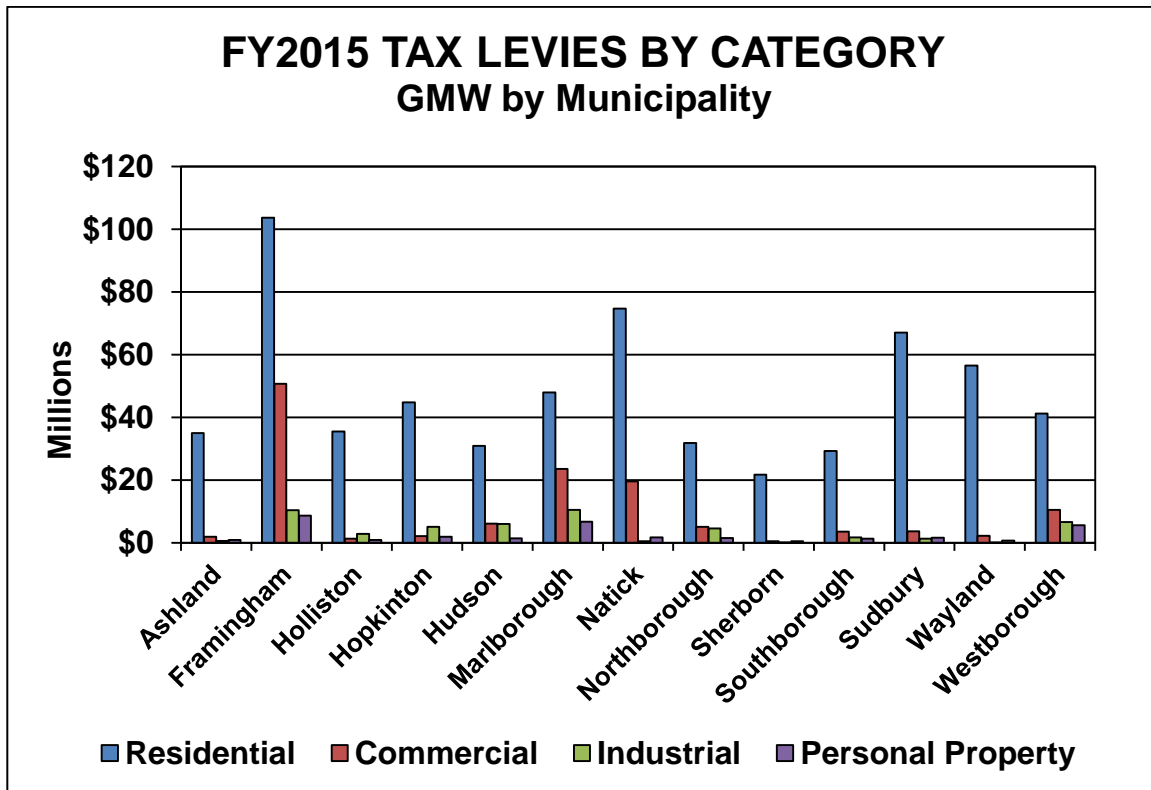
## GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- Municipal revenue per capita for Greater MetroWest (GMW) increased from \$2,373 in FY2000 to \$4,370 in FY2015. This represented an average annual rate of increase of about 4.2% over the 15 year period.
- This statistic can also be viewed as spending per capita as communities work with balanced budgets. The municipal revenue per capita grew every year.
- An increase of 0.1% occurred twice between FY2009 and FY2010 and again between FY2010 and FY2011. These were the smallest increases seen for the region within the 15 year period.
- The largest increase of 10.2% occurred between FY2001 and FY2002 when municipal revenue per capita rose from \$2,576 to \$2,838.

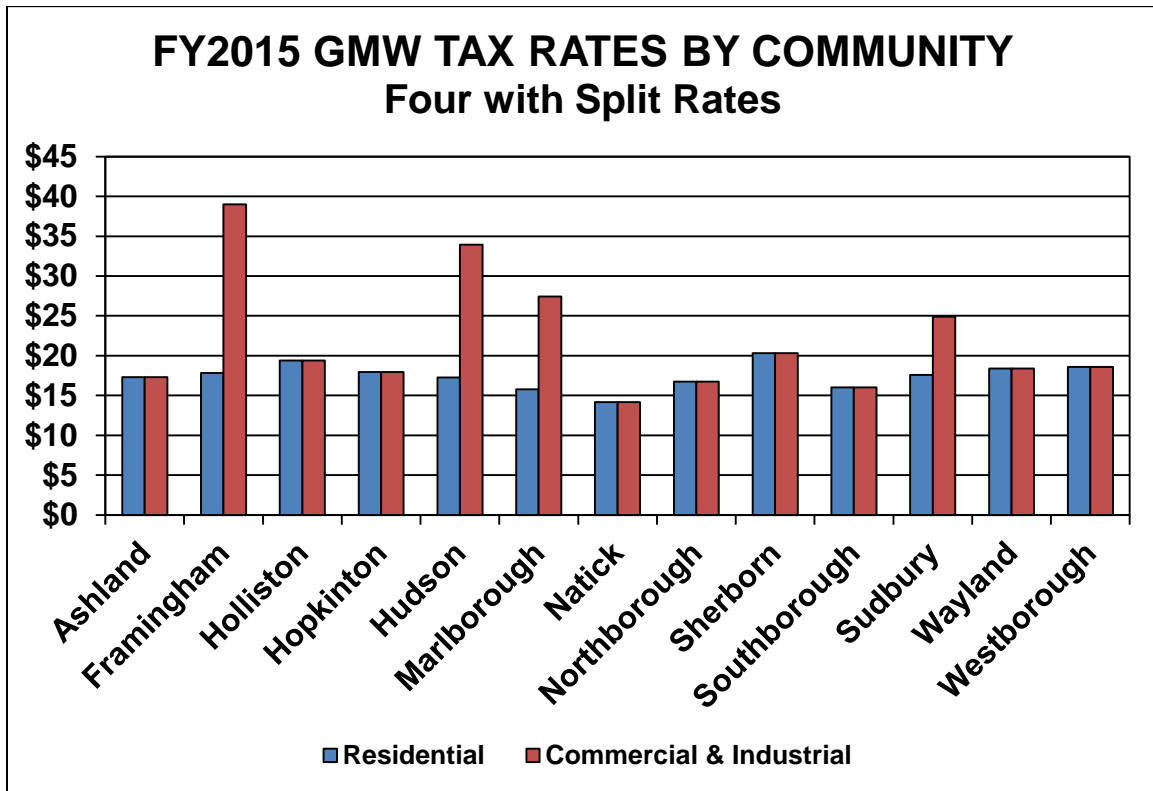
## GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- Residential taxes produced the largest portion of the tax levy for all communities in the Greater MetroWest region. Absolute amounts collected varied considerably, ranging from \$104 million in Framingham to \$22 million in Sherborn. The total tax levy for the region was \$835 million.
- The commercial tax levy fell between \$51 million in Framingham and less than \$0.5 million in Sherborn.
- The industrial tax levy was highest in Marlborough and Framingham at \$11 and \$10 million, respectively. Sherborn and Wayland had the lowest industrial tax levy at \$58,751 and \$83,099.
- The personal property tax levy was \$9 million in Framingham followed by \$7 million in Marlborough and \$6 million in Westborough, the third highest.

## GREATER METROWEST – MUNICIPAL REVENUE

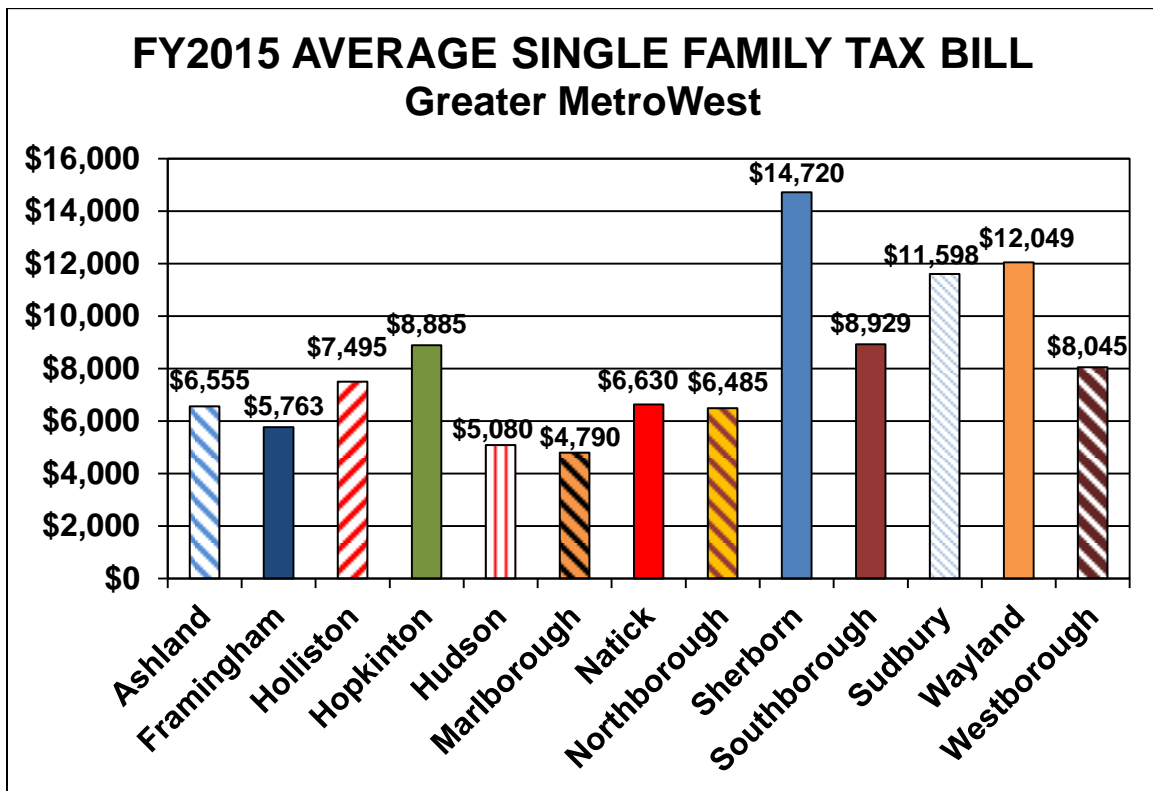


Source: MA Department of Revenue, DLS, and MERC

- The graph above compares the FY2015 residential and commercial & industrial tax rates per \$1,000 of assessed value for the thirteen Greater MetroWest (GMW) communities.
- In the region, nine of the thirteen communities had the same rates for both residential and commercial & industrial property. These communities include: Ashland, Holliston, Hopkinton, Natick, Northborough, Sherborn, Southborough, Wayland, and Westborough.
- The four communities with split rates in GMW were Framingham, Hudson, Marlborough, and Sudbury. These communities had the highest commercial & industrial rates at \$38.99, \$35.92, \$27.43, and \$24.88, respectively.
- Natick had the lowest rates for both residential and commercial & industrial tax rates at \$13.82.
- Residential rates ranged between \$20.32 in Sherborn, which is the highest of the thirteen communities, to the lowest residential rate at \$13.82 in Natick.



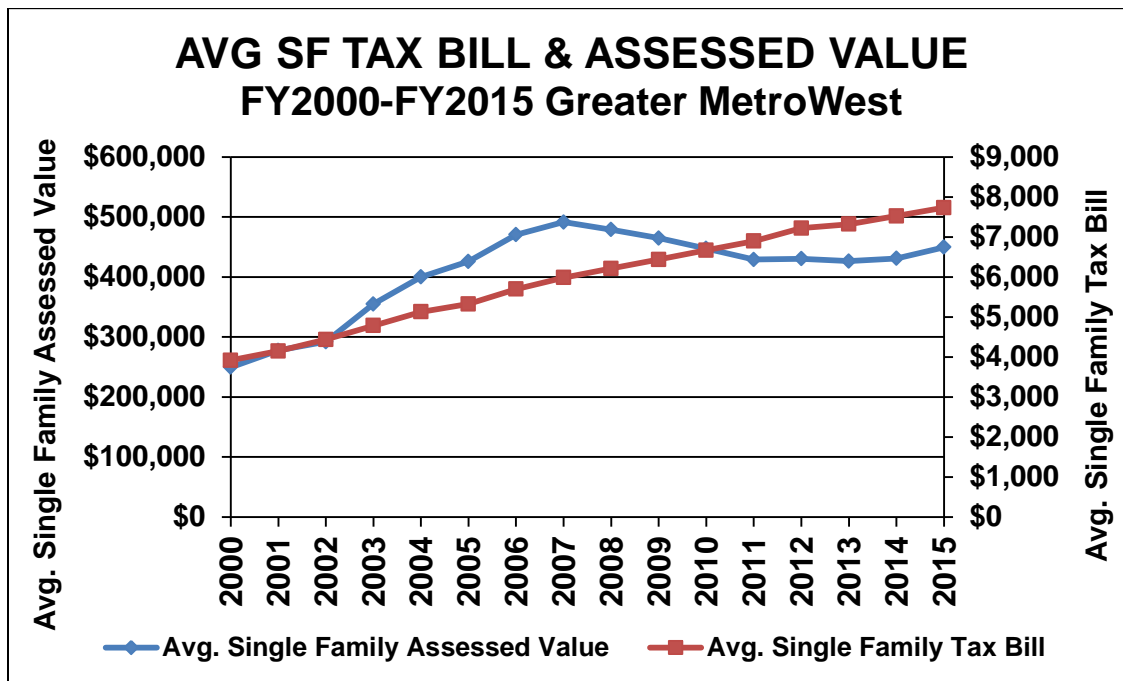
## GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- The average single family residential tax bill in FY2015 differed by community from a low of \$4,790 in Marlborough to a high of \$14,720 in Sherborn.
- Sherborn's average single family tax bill was triple the average single family tax bill in Marlborough.
- Among the eleven remaining communities, the average single family tax bill ranged from \$5,080 in Hudson to \$12,049 in Wayland with communities such as Southborough (\$8,929), Hopkinton (\$8,885), and Westborough (\$8,045) falling in the middle.
- The average assessed value for the single family homes is arrived at by dividing the total single family assessed value for each community by the number of single family parcels in that community.
- The average single family tax bill is determined by applying the respective residential tax rate to the average single family assessed value for each community.

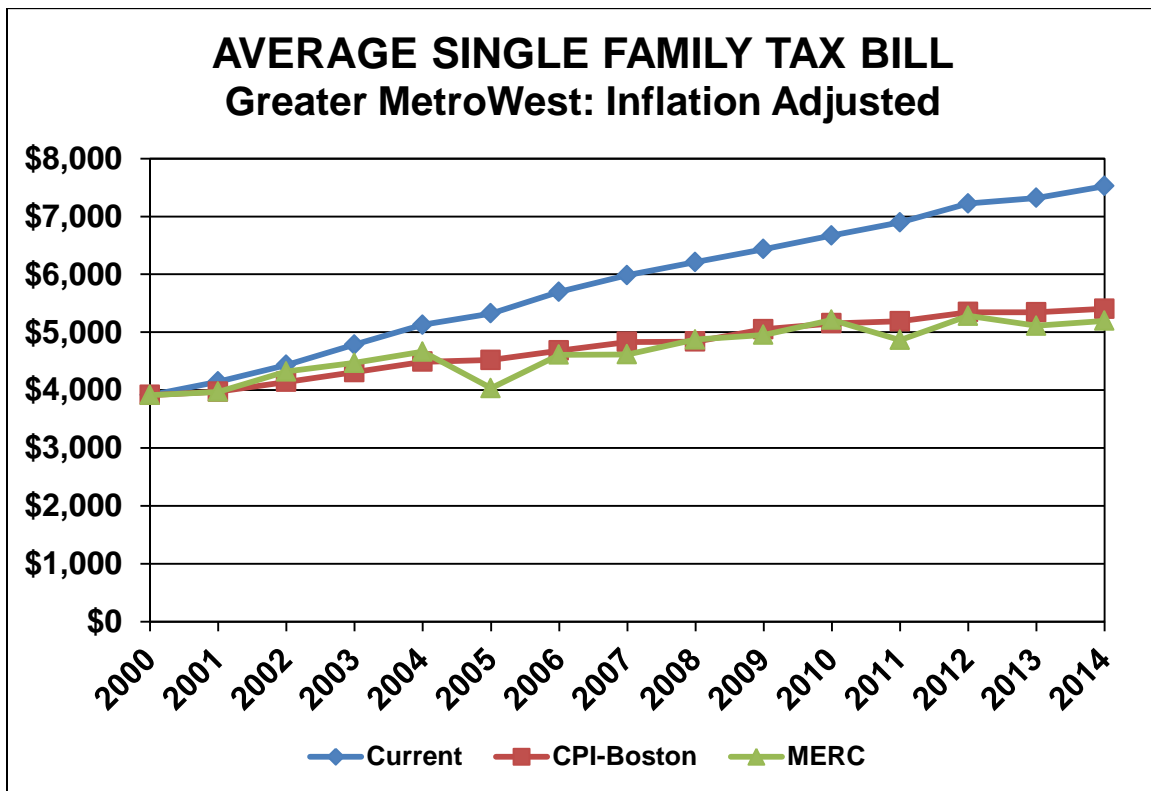
## GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- The average single family assessed value for Greater MetroWest (GMW), excluding Marlborough, is shown in blue and read on the left vertical axis. The average single family tax bill is shown in red and read on the right vertical axis.
- The average single family tax bill increased from a low of \$3,915 in FY2000 to a high of \$7,735 in FY2015. This showed an increase of 97.6% over the period. Each year the average single family tax bill increased.
- From FY2000 to FY2015, the average single family assessed value fluctuated. The lowest value occurred in FY2000 at \$249,490 while the highest value was \$491,631 in FY2007. From there it fell until FY2011, increasing slightly in FY2012, and fell again in FY2013. The average single family assessed value experienced an increase of 4.3% in FY2015 to 449,625.
- The average single family tax bill for the region was determined by calculating a residential tax rate for the region and applying this to the average single family assessed value. The rate was determined by dividing the residential tax levy by the residential assessed value for the region. The average single family assessed value for the region was determined by dividing the total single family assessed value for the region by total single family dwellings.

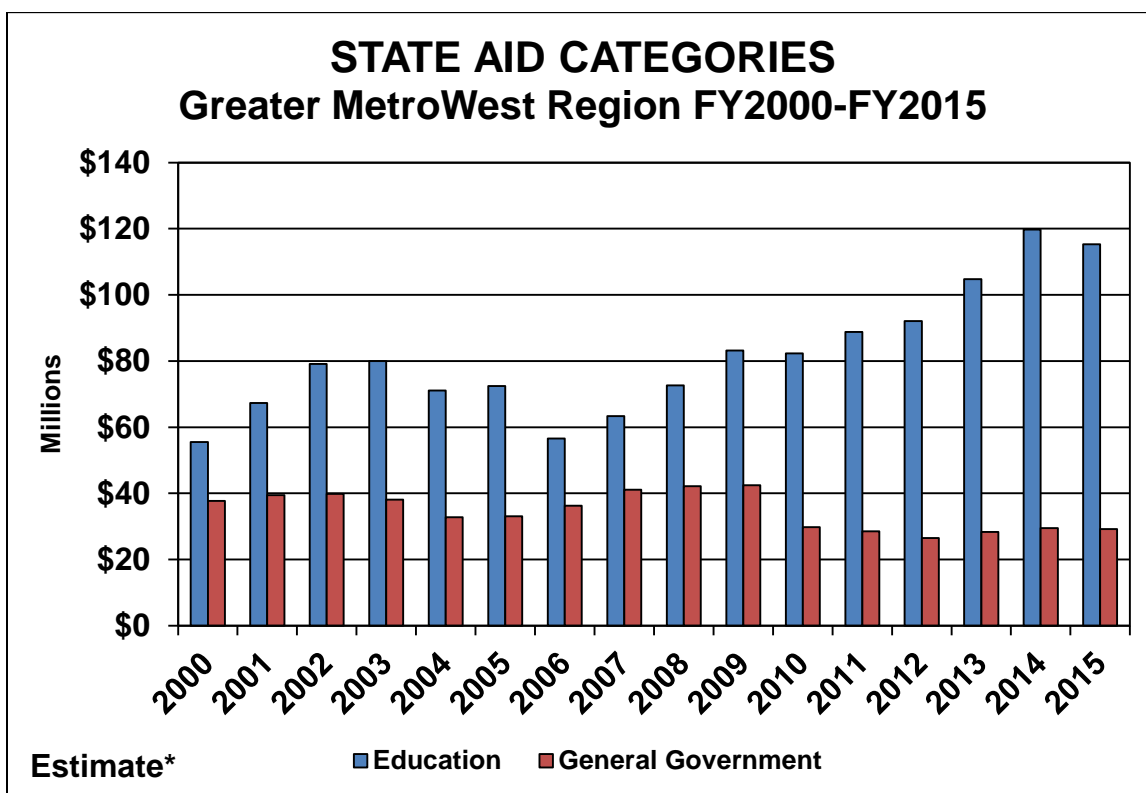
## GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- This graph depicts the average single family tax bill in Greater MetroWest (GMW), excluding Marlborough, for FY2000 to FY2014. The values are measured in nominal or current dollars and also adjusted for inflation.
- The actual single family tax bill, shown in blue, increased every year during this time period from \$3,915 in FY2000 to \$7,525 in FY2014, an increase of \$3,610.
- Two different price indexes were used to calculate the inflation-adjusted real dollar increase for the average single family tax bill: MERC's MetroWest Cost of Living Index and the Boston Consumer Price Index (CPI).
- Each of the two inflation adjustments yielded higher total tax bills in FY2014 than in FY2000. The Boston CPI produced a larger increase in the tax bill over the period, an increase of \$1,490, while the MERC index generated an increase of \$1,281.

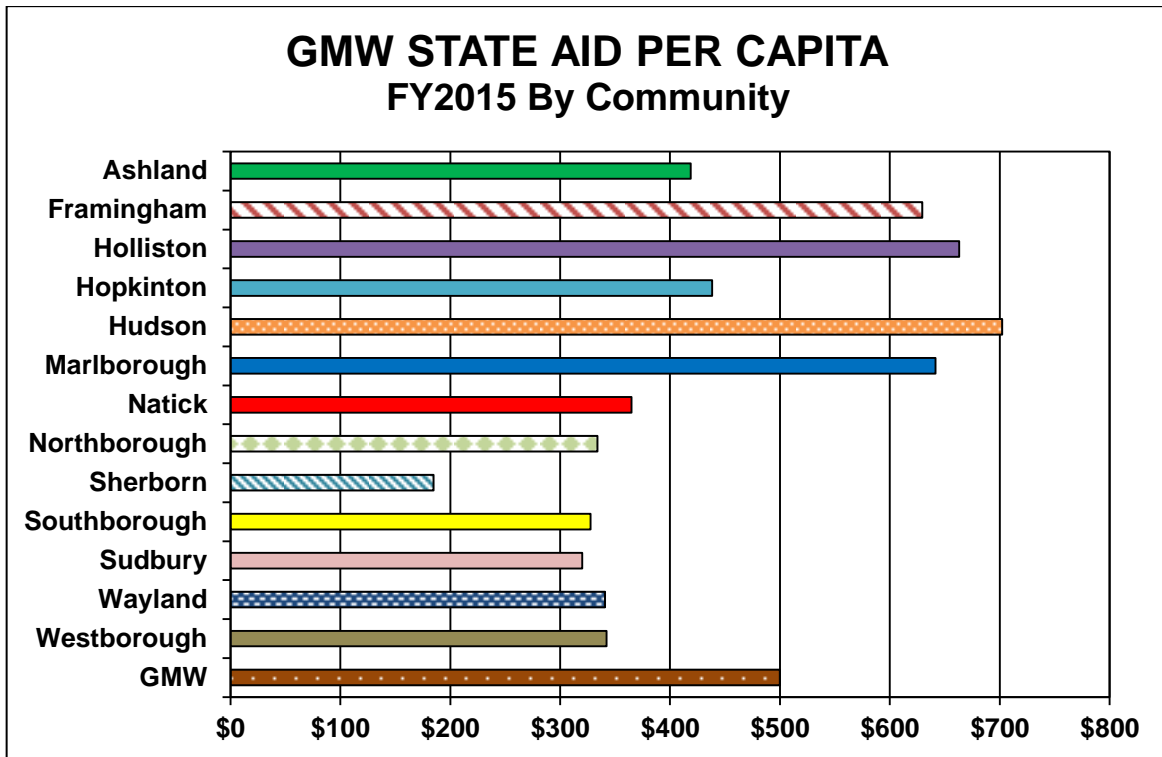
## GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- State Aid for education in Greater MetroWest (GMW) increased from \$55.5 million in FY2000 to an estimated \$115.5 million in FY2015, more than double the earlier amount. Over the period, there were four cases where state aid for education decreased while the remaining years showed an increase. State aid for education increased steadily from FY2010 through FY2014 and decreased slightly in FY2015.
- Note that the amount from FY2006 forward does not include estimated continuing school construction aid that is now accounted for separately by the Massachusetts School Building Authority (MSBA). State aid for education on this page is comprised of Chapter 70, charter tuition assessment reimbursement, school lunch and school choice receiving tuition programs.
- State aid for general government in the GMW communities for the same period had a much lower range with a high of \$42.5 million in FY2009 to a low of \$26.5 million in FY2012.
- Total state aid has varied over time with a period of increase then decline. Total state aid increased each year from FY2010 through FY2014, and decreased in FY2015.

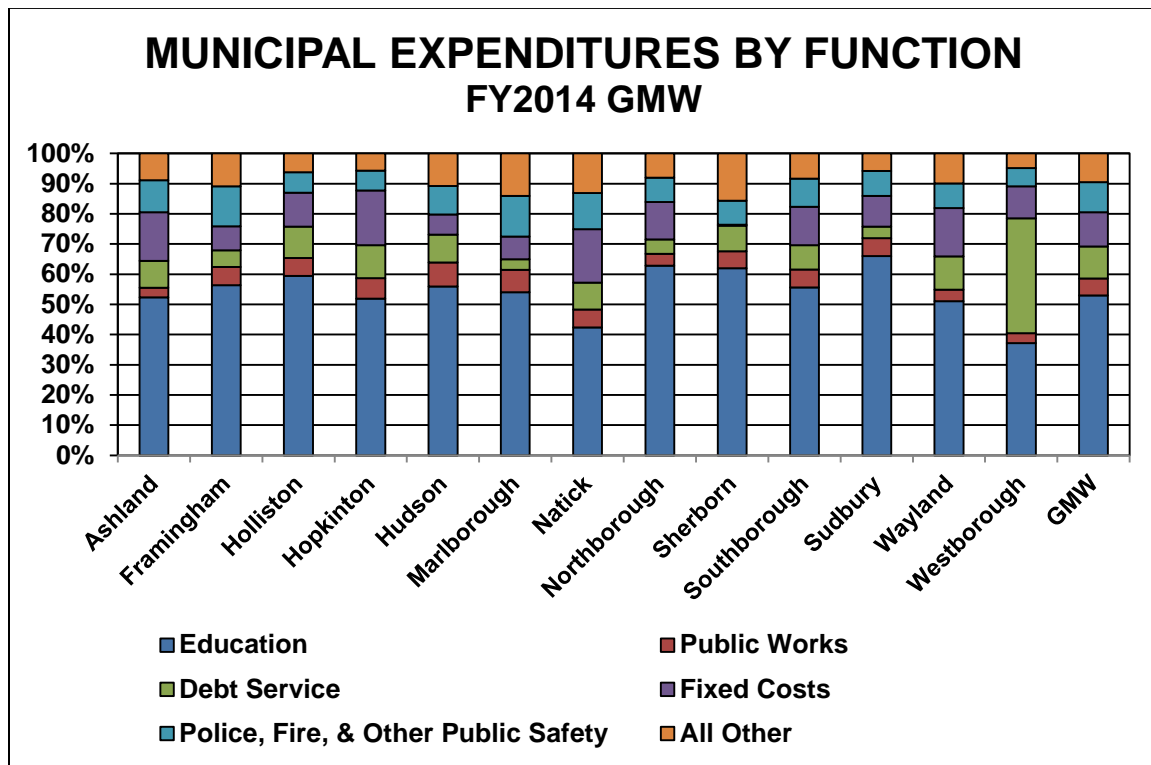
## GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- The graph shows per capita state aid given directly to each of the thirteen communities in Greater MetroWest (GMW) as well as the region for FY2015. State aid per capita is calculated by dividing the sum of the aid given to a community by the population of the community.
- Per capita state aid given to the communities ranged from a low of \$185 in Sherborn to a high of \$702 in Hudson. Communities in the region received an average of \$500 per capita in state aid.
- State aid reflected in this graph consists of both state aid for education and state aid for general government given directly to the respective communities. Total state aid given to all the communities as shown above was \$145,573,633.
- Note that the communities of Northborough and Southborough belong to a regional school district as do Sudbury (with Lincoln) and Sherborn (with Dover). State aid given directly to these regional school districts is not included in the above calculations.

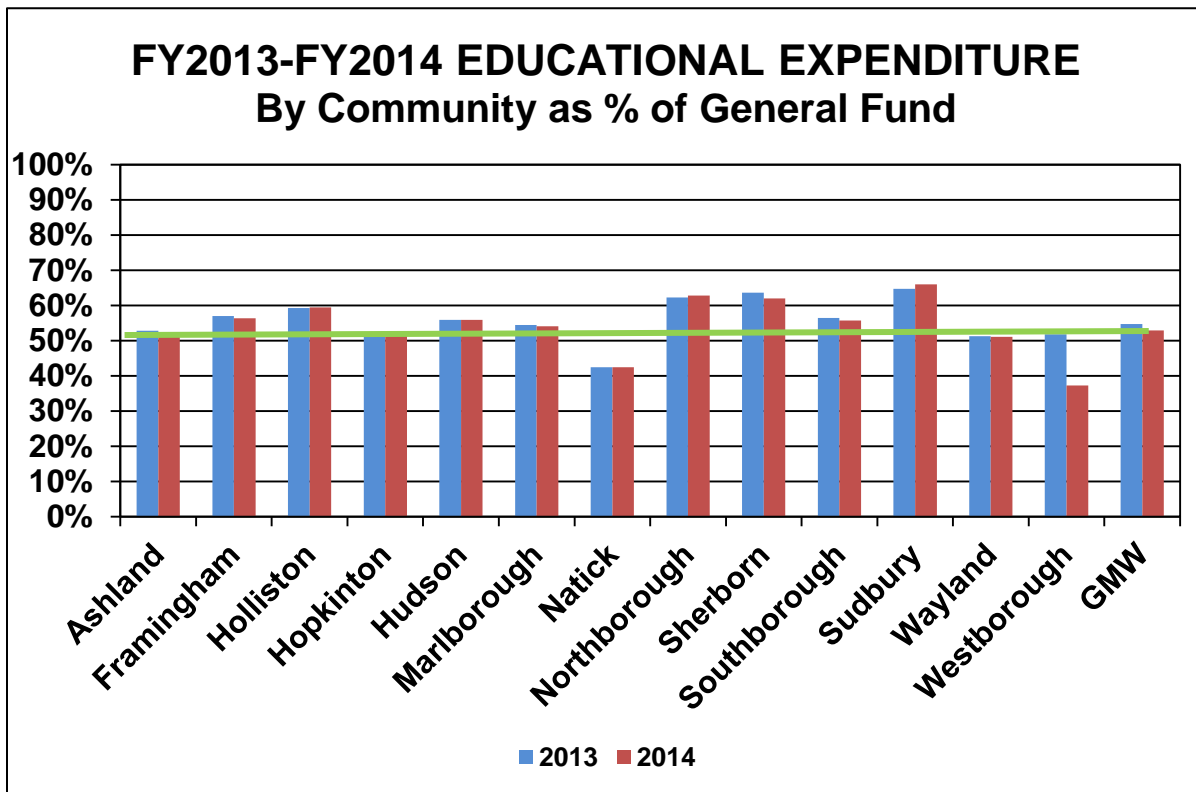
## GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- Municipal expenditures are classified into six main categories: education, public works, debt service, fixed costs, police, fire & other public safety and “all other.” Fixed employee benefits for all municipal employees are included in fixed costs. (FY2013 general fund expenditures were used for Hopkinton, Hudson and Natick as FY2014 data was not yet available.) Total general fund expenditures in FY2014 in Greater MetroWest (GMW) were over a billion, at \$1,037 million.
- Of the thirteen communities, only Natick, and Westborough had less than 50% of their municipal expenditures go to education with 42%, and 37%, respectively. The other eleven communities had education shares ranging from 52% in Wayland to 66% in Sudbury with a GMW average of 53%.
- The remaining categories varied by community. Sherborn had the lowest fixed cost expenditures at 0.3%, compared to a GMW average of 11.3%. Public works was the lowest expenditure percentage in Ashland at 3.2% with a GMW average of 5.6% Westborough had the highest debt services expenditure at 38.1%. Police, fire & other public safety and “all other” had percentages of 9.9%, and 9.5% respectively for the region.

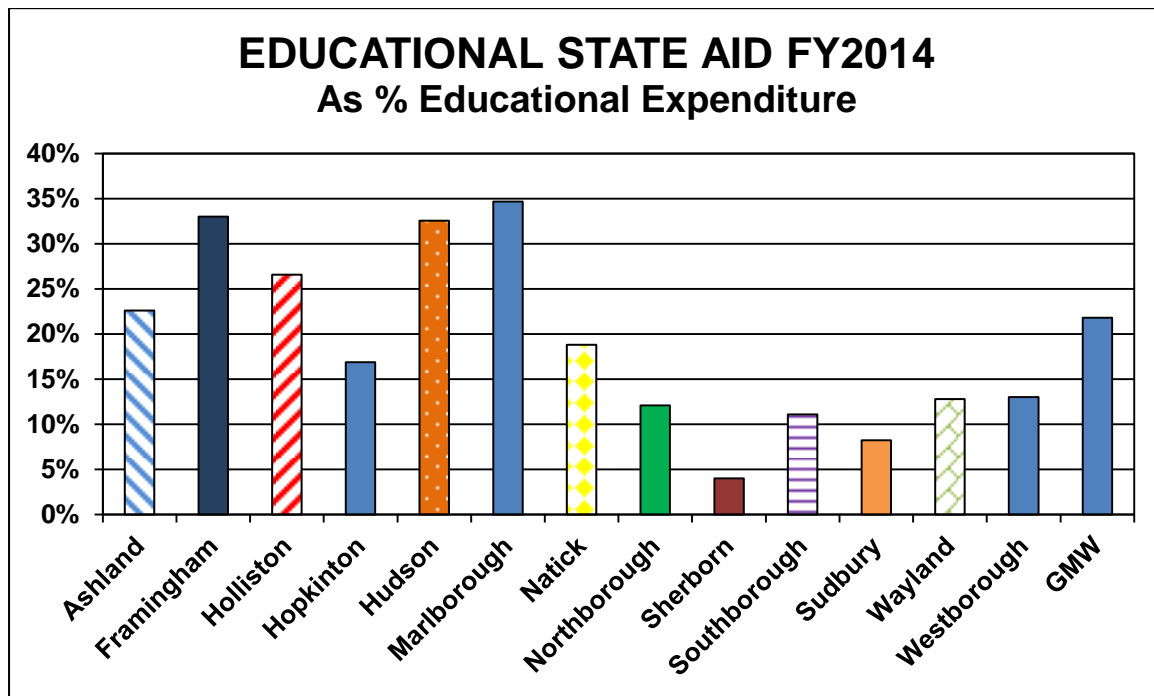
## GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, and MERC

- This graph shows educational expenditures as a percentage of the general fund in FY2013 in blue and FY2014 in red for the communities that make up Greater MetroWest (GMW). (FY2013 educational expenditures were used for Hopkinton, Hudson and Natick for both years as FY2014 data was not yet available.)
- In FY2013 total educational expenditures in GMW totaled \$533 million or 54.7% of total general fund expenditures. In FY2014 the total educational expenditure was \$549 million or 52.9% of total general fund expenditures. The green line represents the GMW average of 52.9% for FY2014. Education expenditures do not include employee benefits.
- Of the thirteen communities shown, eight had educational expenditure percentages above the GMW average of 54.7% in FY2013 and above 52.9% in FY2014. These FY2014 percentages were: Framingham (56.4%), Holliston (59.4%), Hudson (55.9%), Marlborough (54.1%), Northborough (62.8%), Sherborn (61.9%), Southborough (55.7%), and Sudbury (66.0%).
- In FY2013 and FY2014 Ashland, Hopkinton, Natick, Wayland, and Westborough had educational expenditure percentages near or below the regional average.

## GREATER METROWEST – MUNICIPAL REVENUE

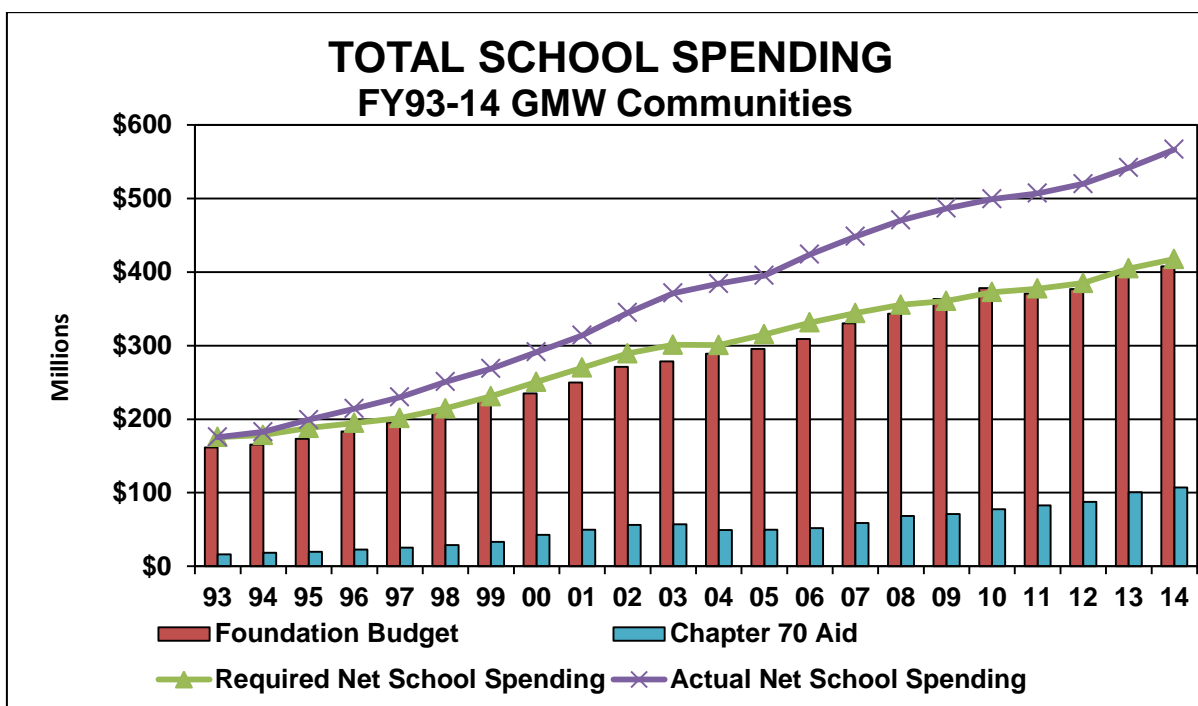


Source: MA Department of Revenue, DLS, and MERC

- Marlborough had the largest educational state aid as a percentage of educational expenditure at 34.7%, Framingham (33.0%), Hudson (32.6%) and Holliston (26.6%) followed closely behind Marlborough. (FY2013 educational expenditures were used for Hopkinton, Hudson and Natick as FY2014 data was not yet available.)
- Sherborn had the lowest percentage at 4.0% while Sudbury had the second lowest with 8.2%; more than double the percentage for Sherborn. Noteworthy, Sherborn is part of a regional middle school and high school district. Northborough and Southborough, as well as, Sudbury (with Lincoln) also belong to regional school districts which means state aid given directly to these regional school districts is not included in this calculation.
- The remaining communities of Ashland, Natick, Northborough, Southborough, Wayland, and Westborough had percentages ranging from a low of 11.1% in Southborough to a high of 22.6% in Ashland.
- Educational expenditures in this graph are those reported in the general fund. State aid for education in this graph includes Chapter 70 state aid for education, charter tuition assessment reimbursement, and school lunch programs.



## GREATER METROWEST – MUNICIPAL REVENUE



Source: MA Department of Revenue, DLS, DOE and MERC

- The above chart shows school spending totals over time for the thirteen communities in Greater MetroWest (GMW). Amounts are indicated for the foundation budget, required net school spending, Chapter 70 state aid for education and actual net school spending. Required net school spending is defined as the sum of a district's minimum contribution(s) plus Chapter 70 aid.
- The red bars represent the foundation budget which is a measure of the amount needed to provide the respective students in any given community an adequate, but not excessive, education. This is determined by a complex formula developed by a committee of education representatives. For FY2014 the total foundation budget for the GMW communities was \$408 million, while the required net school spending (green line), which includes some additional items, was \$418 million.
- The blue bars represent Chapter 70 state aid educational assistance given to the communities. FY2014 Chapter 70 state aid educational assistance provided to all communities in GMW totaled approximately \$107 million. The difference between the heights of the red and blue bars represents the required local contributions to school spending which was about \$310 million for FY2014 for all GMW communities combined.
- Actual net school spending (purple line) is comprised of the required local contribution, Chapter 70 state aid and additional amounts communities choose to spend on education. FY2014 actual net school spending totaled \$567 million. The communities in GMW actually spent \$159 million more educating their students than required. Actual net school spending is essentially the sum of the foundation budget and additional amounts communities spend.

## ***GREATER METROWEST – K-12 PUBLIC SCHOOL ENROLLMENT***

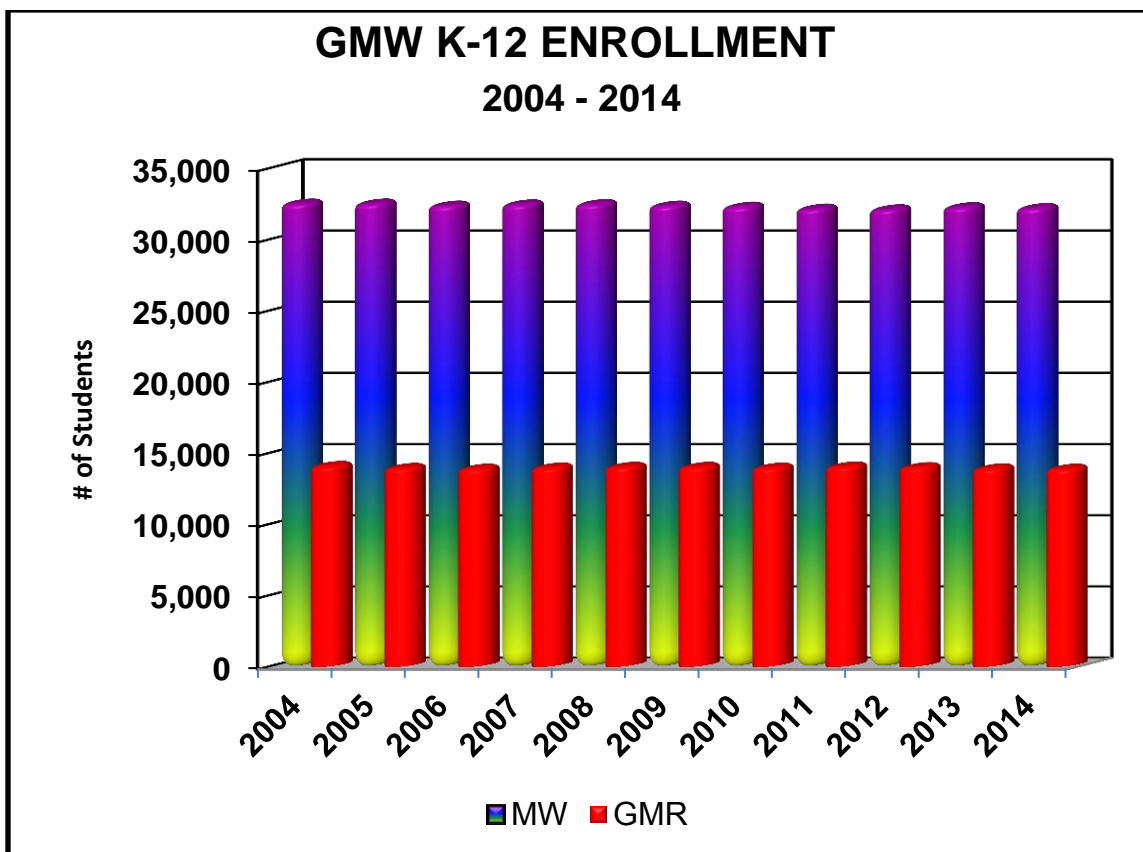
### **K-12 PUBLIC SCHOOL ENROLLMENT**

The MetroWest Economic Research Center (MERC) at Framingham State University annually collects data on K-12 public school enrollment for several sub-state regions. Greater MetroWest public school enrollment is calculated for kindergarten through grade 12 using the annual state student census conducted in October of each year. Included in the data are all public school students in regular education, special education, ELL (English Language Learners), regional charter schools and regional vocational high schools. MERC contacts the region's charter schools, McAuliffe Regional Charter School and the Advanced Math and Science Academy, to obtain their enrollment figures.

In many communities, kindergarten enrollment typically increases 10% upon entry into the first grade.

The Massachusetts Department of Elementary and Secondary Education implemented a student enrollment database, the Student Information Management System (S.I.M.S.) in 2000. The MERC K-12 data presented in this report are obtained from both the October 2014 S.I.M.S. student census and data provided directly to MERC by the local school districts.

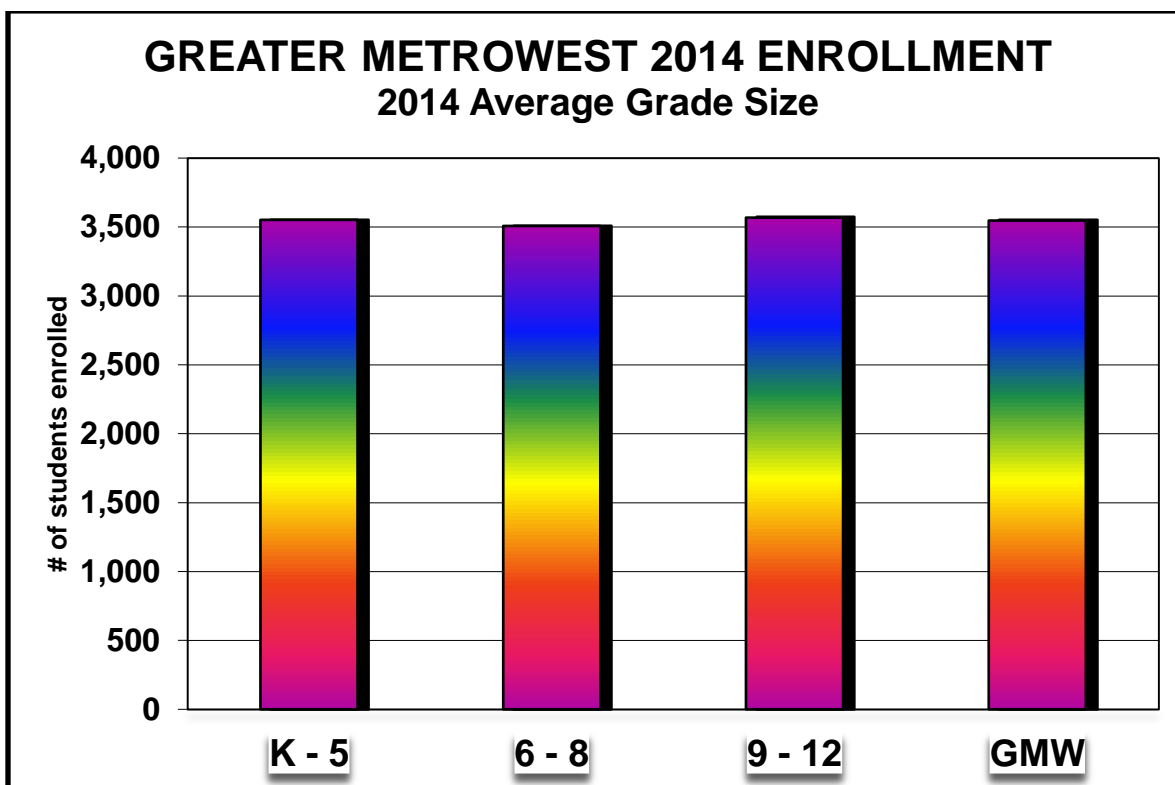
## GREATER METROWEST – K-12 PUBLIC SCHOOL ENROLLMENT



Source: MA Department of Elementary and Secondary Education and MERC

- Public school enrollment in Greater MetroWest experienced a 0.9% decline from 2004 to 2014. Student enrollment in 2004 was 46,529 and 46,106 in 2014. The enrollment declined by 423 students.
- The vocational school enrollment in 2004 was 1,331. By 2014, the vocational school enrollment increased by 1.6% to 1,352 students.
- Enrollment in the Greater MetroWest region was the highest in 2005 (46,678 students) and has been declining since.
- The enrollment for the vocational schools is included in the above graph, but not the charter schools.
- The charter school enrollment in 2004 was 184 students and has increased (662%) to 1,402 students in 2014.

## GREATER METROWEST – K-12 PUBLIC SCHOOL ENROLLMENT

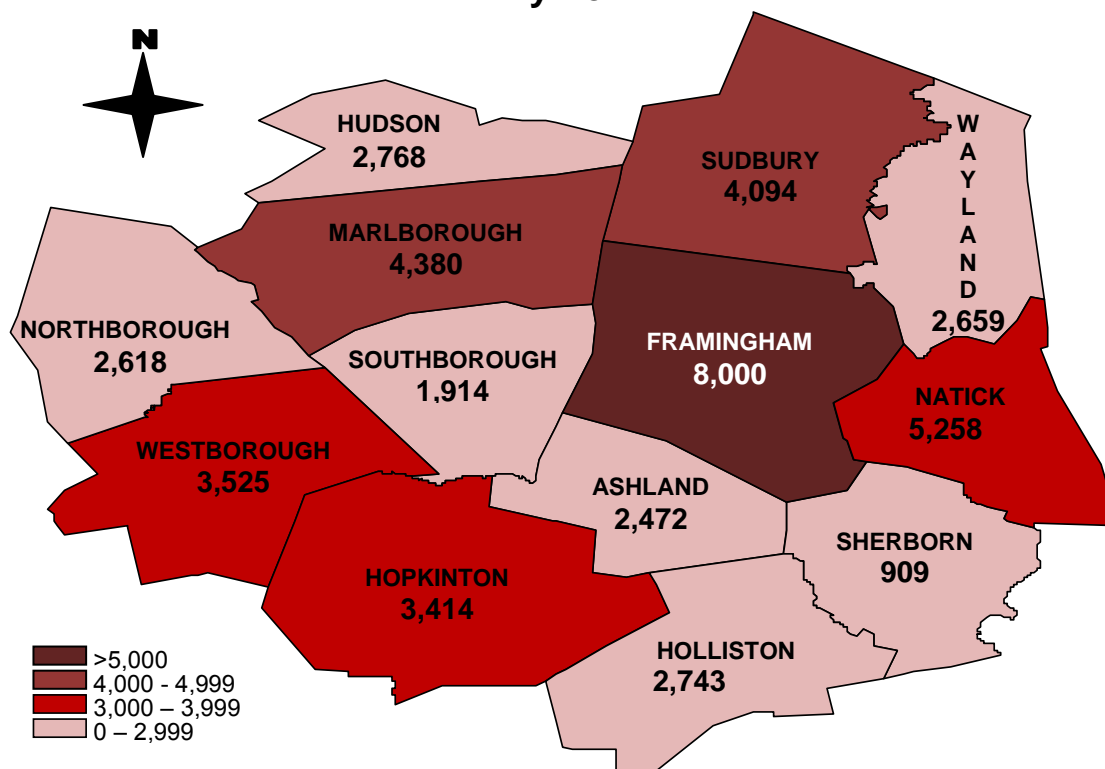


Source: MA Department of Elementary and Secondary Education and MERC

- The 2014 Greater MetroWest K-12 public school enrollment averaged 3,547 students per grade. The regional average grade enrollment experienced a 0.2% decline from 2013.
- In 2014 the average number of students per grade at the elementary school level, kindergarten through fifth grade, was 3,552. This represents a decrease of 0.3% from 2013.
- At the middle school level, grades 6 through 8, the average number of students per grade was 3,508, an increase of 0.6% compared to 2013.
- The average number of students per grade at the high school level was 3,568, a decrease of 0.5%.
- Charter school enrollment is not included in the average grade size calculations.

## GREATER METROWEST – K-12 PUBLIC SCHOOL ENROLLMENT

### GMW 2014 PUBLIC SCHOOL ENROLLMENT By Town

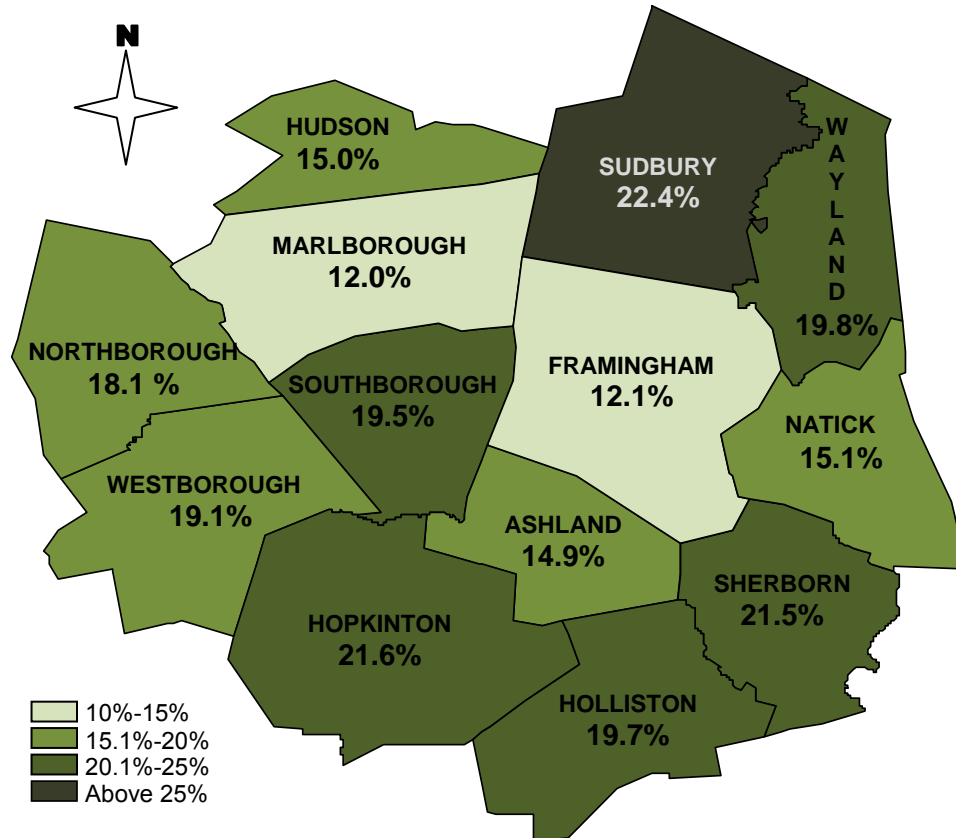


Source: MA Department of Elementary and Secondary Education and MERC

- K-12 public school enrollment in Greater MetroWest totaled 44,754 students in 2014. This figure does not include students enrolled in charter schools and vocational schools.
- The community reporting the highest enrollment was Framingham having a student enrollment of 8,000. The towns of Marlborough, Natick, and Sudbury had enrollments between 5,000 and 4,000 students. Hopkinton and Westborough each had about 3,400 students enrolled.
- Ashland, Holliston, Hudson, Northborough, Southborough, and Wayland had enrollments between 3,000 and 2,000 students. Sherborn reported the smallest enrollment at 909 students.
- Enrollment in vocational high schools in the Greater MetroWest region totaled 1,352 students in 2014. These students are not included in the figures reported in the map above. Vocational student enrollment has increased by 1.4% from 2013.
- Enrollment in the charter schools totaled 1,402 students in 2014, up 4.3% from 2013.

## GREATER METROWEST – K-12 PUBLIC SCHOOL ENROLLMENT

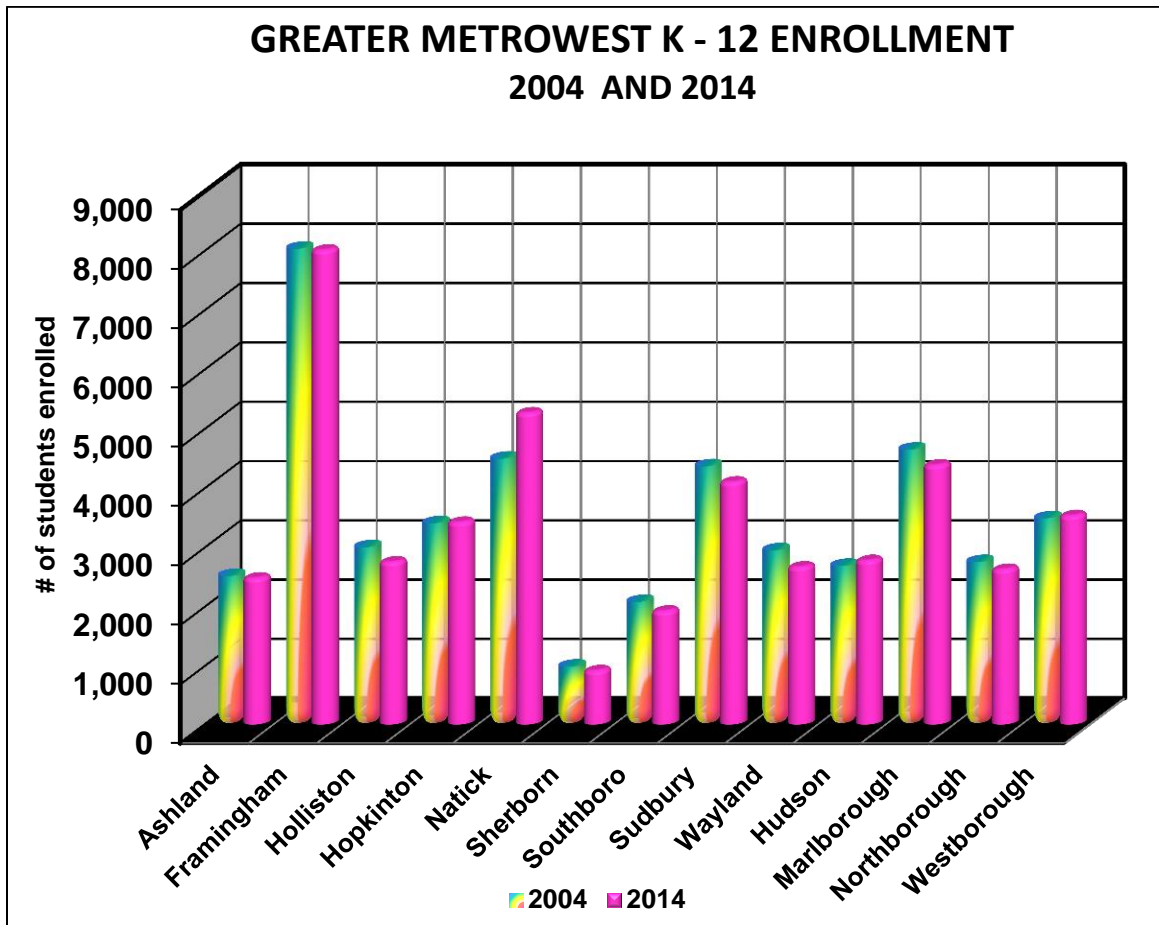
### GMW PUBLIC SCHOOL ENROLLMENT As Percentage of 2014 Population



Source: U. S. Census and MERC

- K -12 public school enrollment in Greater MetroWest (GMW) for 2014 was 46,106 students. This figure does not include 1,402 students enrolled in charter schools, but does include students in vocational schools, but does not include students in vocational schools.
- This map measures the proportion of the community's population enrolled in public school. Public school enrollment in 2014 is given as a percentage of 2014 population estimated from the most recent census data available. The highest enrollment as percentage of population occurred in Sudbury, followed by Hopkinton and Sherborn. In these communities, slightly more than 1 in 5 of the town's residents were enrolled in public schools.
- About 20% of the population in the communities of Hopkinton, Sherborn, Southborough, Sudbury, Wayland and Westborough attend public school.
- Framingham, Marlborough, and Natick with the largest populations and public school enrollment also reported a small percentage of the population in school.

## GREATER METROWEST REGION – K-12 ENROLLMENT



Source: MA Department of Elementary and Secondary Education and MERC

- Student enrollment in 2004 was 45,292. In 2014 student enrollment was 44,754, a 1.2% decline.
- Wayland experienced the largest decrease (9.6%) in student enrollment and Natick had the largest increase (17.2%) in student enrollment from 2004 to 2014.
- Holliston (8.3%), Sudbury (6.1%) and Marlborough (5.6%) experienced a decrease in their student enrollment.
- Hopkinton (0.5%), Hudson (3.4%) and Westborough had increases in student enrollment.
- Vocational school enrollment and charter school enrollment are not included in the above graph.

## **APPENDIX**

### **North American Industry Classification System (NAICS)**

In 2001 the North American Industry Classification System (NAICS) permanently replaced the Standard Industrial Classification (SIC) system in use for seventy years. NAICS is an industrial classification system that groups establishments into industries based on the activities in which they are primarily engaged. It is a comprehensive system covering the entire field of economic activities, both producing and non-producing. NAICS has twenty separate industrial sectors that are described in this appendix. These twenty sectors are grouped into eleven supersectors. Most NAICS data used in this publication is presented by supersectors.

### **NAICS Supersectors\***

#### **Goods-Producing Domain (GPD)**

##### **Natural Resources and Mining Supersector**

- 11 Agriculture, Forest, Fishing and Hunting
- 21 Mining

##### **Construction Supersector**

- 23 Construction

##### **Manufacturing Supersector**

- 31-33 Manufacturing

#### **Service Producing Domain (SPD)**

##### **Trade, Transportation and Utilities Supersector**

- 22 Utilities
- 42 Wholesale Trade
- 44-45 Retail Trade
- 48-49 Transportation and Warehousing

##### **Information Supersector**

- 51 Information

##### **Financial Activities Supersector**

- 52 Finance and Insurance
- 53 Real Estate and Rental and Leasing

##### **Professional and Business Services Supersector \*\***

- 54 Professional, Scientific and Technical Services
- 55 Management of Companies and Enterprises
- 56 Administrative and Support and Waste Management and Remediation Services

##### **Education and Health Services Supersector**

- 61 Educational Services
- 62 Health Care and Social Assistance

##### **Leisure and Hospitality Supersector**

- 71 Arts, Entertainment, and Recreation
- 72 Accommodation and Food Services

##### **Other Services Supersector**

- 81 Other Services (except Public Administration)

**Public Supersector\*** as used in this publication, includes the Public Administration NAICS sector defined below, plus all other jobs in federal, state and local government.

### **NAICS Sectors**

#### **Natural Resources and Mining Supersector:**

**11-Agriculture, Forestry, Fishing and Hunting** comprises establishments primarily engaged in crop growing, animal raising, and timber and fish harvesting.



## **APPENDIX**

**21-Mining** comprises establishments that extract naturally occurring mineral solids, liquid minerals, and gases.

### **Construction Supersector:**

**23-Construction** comprises establishments primarily engaged in the construction of buildings or engineering projects.

### **Manufacturing Supersector:**

**31-33-Manufacturing** comprises establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products.

### **Trade, Transportation and Utilities Supersector:**

**22-Utilities** comprises establishments engaged in the provision of the following utility services: electric power, natural gas, steam supply, water supply and sewage removal, through a permanent infrastructure of lines, mains, and pipes.

**42-Wholesale Trade** comprises establishments engaged in wholesaling merchandise, generally without transformation, and rendering services incidental to the sale of merchandise, including the outputs of agriculture, mining, manufacturing, and certain information industries, such as publishing. The wholesaling process is an intermediate step in the distribution of merchandise.

**44-45-Retail Trade** comprises establishments engaged in retailing merchandise, generally without transformation, and rendering services incidental to the sale of merchandise. The retailing process is the final step in the distribution of merchandise; retailers are, therefore, organized to sell merchandise in small quantities to the general public. This sector comprises two main types of retailers: store and nonstore retailers.

**48-49-Transportation and Warehousing** comprises industries providing transportation of passengers and cargo, warehousing and storage for goods, scenic and sightseeing transportation, and support activities related to modes of transportation (air, rail, water, road, and pipeline).

### **Information Supersector:**

**51-Information** comprises establishments engaged in producing and distributing information and cultural products, providing the means to transmit these products, and processing data.

### **Financial Activities Supersector:**

**52-Finance and Insurance** comprises establishments primarily engaged in financial transactions (transactions involving the creation, liquidation, or change in ownership of financial assets) and/or in facilitating financial transactions.

**53-Real Estate and Rental and Leasing** comprises establishments primarily engaged in renting, leasing, or otherwise allowing the use of tangible or intangible assets.

### **Professional and Business Services Supersector\*\*:**

**54-Professional, Scientific, and Technical Services** comprises the performing of professional, scientific, and technical activities for others. These activities require a high degree of expertise and training. Some activities performed include: legal advice and

## APPENDIX

representation, accounting, engineering services, computer services, research services, advertising services, and veterinary services.

**55-Management of Companies and Enterprises** comprises establishments that either hold the securities of companies for the purpose of owning a controlling interest or influencing management decisions, or establishments that administer, oversee, and manage establishments of the company and that normally undertake the organizational planning and decision making role of the company.

**56-Administrative and Support and Waste Management and Remediation Services** include establishments performing routine support activities for the day-to-day operations of other organizations. Activities performed include: office administration, hiring and placing of personnel, document preparation and similar clerical services, solicitation, collection, security and surveillance services, cleaning, and waste disposal services.

### **Education and Health Services Supersector:**

**61-Educational Services** comprises establishments that provide instruction and training to a wide variety of subjects. This instruction and training provided by specialized establishments, such as schools, colleges, universities, and training centers.

**62-Health Care and Social Assistance** comprises establishments that provide health care and social assistance for individuals.

### **Leisure and Hospitality Supersector:**

**71-Arts, Entertainment, and Recreation** comprises a wide range of establishments that operate facilities or provide services to meet varied cultural, entertainment, and recreational interests of their patrons.

**72-Accommodation and Food Services** comprises establishments providing customers with lodging and/or preparing meals, snacks, and beverages for immediate consumption.

### **Other Services Supersector:**

**81-Other Services** (except Public Administration) comprises establishments engaged in providing services not specifically provided for elsewhere in the classification system. Establishments in this sector are primarily engaged in activities, such as equipment repairing, administering religious activities, grantmaking, advocacy, and providing laundry services, personal care services, death care services, pet care services, photofinishing services, temporary parking services, and dating services.

**Public Supersector\*** as used in this publication, includes the Public Administration NAICS sector defined below, plus all other jobs in federal, state and local government.

**Public Administration** The Public Administration sector consists of establishments of federal, state, and local government agencies that administer, oversee, and manage public programs and have executive, legislative, or judicial authority over other institutions within a given area.

**\*\*Professional and Business Services Supersector:** In this and other MERC publications MERC uses the acronyms **PBS** and **BPS** interchangeably to refer to this NAICS supersector.

## SOURCES

- The Council for Community and Economic Research (C2ER) (formerly ACCRA)
- *Banker & Tradesman*; The Warren Group
- Bureau of Labor Statistics, U. S. Department of Labor (U.S.B.L.S.)
- Federal Reserve Bank of Boston
- Massachusetts Department of Elementary and Secondary Education
- Massachusetts Department of Revenue, Division of Local Services (DLS)
- Massachusetts Executive Office of Labor and Workforce Development (MA EOLWD)
- MetroWest Economic Research Center (MERC)
- United States Census Bureau, U. S. Department of Commerce

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- Massachusetts Department of Revenue, Division of Local Services
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